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CYCLOPÆDIA OF INDIA

AND OF

EASTERN AND SOUTHERN ASIA,

Commercial, Industrial and Scientific:

PRODUCTS OF THE
MINERAL, VEGETABLE AND ANIMAL KINGDOMS,
USEFUL ARTS AND MANUFACTURES;

EDITED BY

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PREFACE TO THE FIRST EDITION.

WHILST we find books of reference in most departments of Science and Literature in connection with European countries, daily becoming cheaper and more abundant, those who investigate or seek for information regarding the resources of British India, or any of the scientific and economic subjects connected with Eastern countries, still meet with much difficulty and hindrance, owing to the necessity of consulting numerous authors whose works are scarce or costly. And as some inquirers are without the pecuniary means of procuring all the requisite books and journals, or find it impossible to procure them at any cost, whilst others want leisure or opportunity for such extensive research, it is evident that progress in these branches of knowledge would be greatly facilitated, by collecting and condensing this widely dispersed information, thereby enabling future inquirers gain some acquaintance with the results of the investigations made by the many diligent and laborious individuals, who have devoted a great portion of their time to collecting information over the vast area of Southern Asia.

My avocations while employed in India, more particularly in the past seven years, have rendered necessary for me a collection of books of reference relating to India and the East, somewhat more numerous and varied in character than private individuals generally possess; whilst my employment as Secretary to the Madras Central Committees for the Great Exhibition of 1851, the Madras Exhibition of 1855, the Universal Exhibition held in Paris in 1855, and the Madras Exhibition of 1857, combined with my duties (since 1851), as Officer in charge of the Government Central Museum, have brought under my notice a rare variety of Eastern products and subjects of interest; and thinking that, before quitting the countries in which I have dwelt for nearly a quarter of a century, I might with advantage leave to my successors in a portable form, the notes made on the products of the East that have come under my notice, combined with an abstract of the useful information respecting them contained in my books, I have been led to show the results in the present shape.

A work of this aim and character might doubtless fully occupy the life-time of several men of varied attainments; and this *Cyclopædia of India and of Eastern and Southern Asia,* may therefore be regarded only as a first attempt towards the kind of book, the want of which has been long and generally felt. But although fully conscious of its incompleteness in many respects, yet, I trust it may still be received with all imperfections and omissions, as a useful and opportune addition to Asiatic Literature; at least by those who recognize the justness of the saying of Emmerson, that "the thing done avails, and not what is said about it: and that an "original sentence, or a step forward, is worth more than all the censures"* which may be made by such as are disposed to find fault, or who would demand in a work of this kind, a degree of perfection unattainable on a first trial.

The book is merely a novelty in form, the matter it contains being as old as our first possessions in India: it is simply a compilation of the facts and scientific knowledge, which authors and inquirers have been amassing and communicating since then, to one another and the public. But, "in our time, the higher walks of literature have been so long and so often trodden, that whatever any individual may undertake, it is scarcely possible to keep out of the foot-steps of some of his precursors;"† and this Cyclopædia, I may therefore avow to be but an endeavour to make generally available, in a condensed form, the information acquired by those who have in any way investigated the natural or manufactured products of Southern Asia, or have at any time made its arts or natural history the subjects of inquiry. Some of those whose writings I have made use of, have long since gone to their account, but many a labourer yet alive may find the result of his labours embodied here; and I have done this freely, because even those from whose writings I have most largely drawn, will acknowledge that the quaint old lines of Chaucer‡ still apply with full force; viz. that,

"Out of the old fields, as men sayeth,
Cometh all this new corn fro' yeare to yeare:
So out of old books, in good faith,
Cometh all this new Science that men lere."

Indeed, I have rather sought to collect and condense accurate and well ascertained facts, than to present novelties; for originality is but too often unconscious or undetected imitation. Byron, years ago, remarked that all pretensions to it are ridiculous; and a wiser one than Byron has told us that "there is nothing new under the sun." But if there be nothing absolutely new in this work, I hope it may yet be found to contain much which to many was unknown before; and which want of books, leisure, or opportunity, may have debarred them from learning.

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* English Traits, p. 5. † Salad for the Social, page 317. ‡ Ibid, page 321.

The Cyclopædia is not intended to comprise the whole Science of Botany, nor that of Medicine, or Zoology; nor to instruct in all the matters useful in Commerce or the Arts; but, whether examined for information or amusement, the botanist, the medical practitioner, the naturalist, and the merchant, may perhaps each find something in it, which, from his engagements, he did not know before, or though once knowing he may have again forgotten. In both cases, the work may prove useful, since old thoughts are often like old clothes; put away for a time, they become apparently new by brushing up. It would have been better perhaps, had a work of this kind been undertaken years ago, or even now were it made the joint effort of several persons: indeed, to render it in any way complete, would call for the resources at the command of a Government rather than of individuals; but we cannot have every thing at the time we wish, nor in the way we wish, and it is better to have some one undertake it and do it the best way he can, *now*, than to postpone it to some further indefinite period.

With a view therefore of laying a foundation as a starting point for future inquirers, I now make the commencement of a work, towards which I hope to receive from many quarters aid and support as I proceed: being thereby enabled either to produce future enlarged and improved editions of the work myself,—placing it, as I hope, within the reach of all,—or seeing that task taken up hereafter, by younger men, with more time and opportunity than are now before me. A dinner of fragments is often said to be the best dinner; and in the same way, there are few minds but might furnish some instruction and entertainment, from their scraps, or odds and ends of knowledge. Those who cannot weave a uniform web, may at least produce a piece of patchwork;* and any items of information sent to me will be very acceptable.

There is another difficulty which inquirers in this country have had to meet and struggle with; I allude to the many languages and dialects in use in India and Eastern Asia, and consequently the variety of scientific, national, or even local names, by which the same thing is known. The only means of overcoming this difficulty was to frame a copious index of contents; for Pope has well said that

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* Guesses at Truth.

"Index Learning turns no student pale,
Yet holds the eel of Science by the tail."

This Indexing will add to the bulk of the book, but greatly also to its value as a work of reference; and will be carefully completed.

PREFACE TO THE SECOND EDITION.

THE first edition with its two Supplements contained 29,870 names and the work was favourably received by the Public Press. But my acquaintance with these countries did not permit me to regard that number as other than a foundation for an enlarged and improved edition, and this second edition will contain about 100,000 names, under which much connected with India and with Eastern and Southern Asia will be found.

I have spared neither time nor labour to make the present edition as perfect as possible, but a Cyclopædia must necessarily ever be progressive.

A

A, a. In the English language, is the first letter in the alphabet, and the ordinary sounds, long or short, are as *a* in many ; a in all and as a in municipal.

In Arabic, Persian and Hindustani, the letter ا and the vowel mark have almost similar sounds, as in that part of the āzăn or mahomedan call to prayers الله اكبر Allahō ākbăr, unto God the Great, retaining the long sound invariably when in the middle or end of a word.

In Tamil, the English A and a, long and short, are represented by two initial letters அ ஆ equal to ă and ā ; and all the consonants have the inherent sound of short a, thus க ká ண ná.

In Telugu, the short a, is represented by the letter అ, initial, and by the mark ✓ placed on the top of a consonant, thus క ká. The long ఆ, initial, has the same sound as â in anger.

AACH or ATCHE. Tam. Morinda citrifolia.

AAL. Tam. Morinda citrifolia ; Morinda multiflora. See Dyes.

AAKAL. Arab. The fillet of the Arabs.

AALIN NAR. Maleal. ആലിൻനാര Fibre of Ficus Indica. Banyan tree.

AARD APPELEN. Dut. Potatoes.

AARDEGOED. Dut. Earthenware.

AARON, his burial-place is shown on Mount Ohod : his grave is also shown over the summit of Mount Hor.

AATALARI. Tam. Polygonum barbatum.

AB. Pers. Hind. آب Water. Hence, *Abi*, Pers. Hind. آبي Watery ; also *Ab-kari*, Hind, lit : آبكاري water making, i. e. the distillation of alcoholic fluids, &c., and in use as a revenue term in British India for that branch which superintends the license to sell all kinds of intoxicating substances, as arrack, toddy, opium, &c. *Do-ab*. Pers. Hind. دوآب literally, two waters, the fork or inverted delta caused by the junction of two rivers or the territory running between two rivers. *Punj-ab*, Pers. Hind. پنجاب five waters or five rivers, that territory on the North-West provinces of British India, conquered from the Sikhs, through which seven rivers flow.

ABA SIN. ابا سين Pusht. The river Indus.

ABA, or Camaline as it is called in the Persian gulf, is worn in Oman by all classes. It is the camel's hair cloak of Arab Shaikhs, and is often striped white and brown. See Camoleen, Keifyet.

ABA-BAKER, the father-in-law of Mahomed. See Khajah. Aboo-Bakr. Abu-Bakr.

ABABIL. Hind. ابابيل The Swallow. See Bird-Nests.

ABACA BRAVA. The wild or mountain abaca of the Philippines, a variety of the Manilla hemp plant, Musa textilis, the fibres of which serve for making ropes, called *Agotag* and *Amoquid* in the Bicol language.—*Royle's Fib. Plants, p.* 65.

ABAD. Pers. Hind. آباد Populous. A mahomedan territorial postfix to districts of country and towns, as Arungabad, Dowlatabad, Allahabad, Farrakhabad, Hyderabad.

ABAGASUS or ABALGASIUS. One of

the Greek Kings, successors to Alexander, who reigned about A.D. 70 or 80 in Arian Abakhafasa. Vologeses Professor Lassen supposes that this name is identical with Vologeses. Captain Cunningham described the Arian legend on the coins of Abalgasius A. D. 80, to be "of the Saviour King Abagasus, younger son of Undopherres." *Prinsep, Historical Results.* See Greeks : Kabul.

ABAI (Borneo). A small port or harbour in Lat. 6° 23' N. situated about 40 miles S. S. W. from Tanjong Sampan-mangaio, the north extreme of Borneo.

ABAK, Arab. ابك Mercury.

ABAN. Pol. Iron.

ABAR-MURDAH. Pers. ابرمرده Sponge.

ABAS BANDAR, Băndăr Abbas or Gambaroon, a town in Kirman. See Kirman.

ABASSI. Pers. عباسي A scymeter.

ABBAS. See Kashan.

ABBOTABAD, in Lat. 34° 10' N.; and Long 73° 9' E. in Márri, a small military sanitary station, N. N. E. of Chámba, at a height above the sea of 4,055 feet.—*Rob. Schl.* See Sanitoria.

ABBOTT, James, a distinguished officer of the Bengal Artillery who rose to high military rank. He was employed in the political department in Herat and the Punjab. He travelled from Khiva to St. Petersburgh and published an account of the journey. He contributed many scientific articles to the Transactions of the Bengal Asiatic Society.—*Buist's Catalogue.*

ABDAGASSES. A Bactrian successor of [illegible]xander who succeeded Gondophares in Aria B. C. 26. See Magasius : Greeks of Asia.

ABDALI. Hind. ابدالي A powerful Affghan tribe or sect, residing in every part of Affghanistan, but principally in Herat and Kandahar. They are termed Dourani, since 1747, when Ahmed Shah, Suddozye, on ascending the throne, gave them that name. The Abdali and Ghilzi, but particularly the former, arrogate to themselves a superiority over the other Affghan tribes, and from their greater numerical strength have exercised a greater power. The Abdali are also called Sulimani, from the mountains whence they came, having then dwelt in the district termed Tobeh Maroof.—*Latham.* See Barakzye.

ABDAR. Pers. ابدار Glancing as a gem or polished sword : In India a water cooler.

ABDULLA-IBN-SAOOD. The Wahabi chief captured by Ibrahim Pasha. See Wahabi.

ABDUL LATIF. The Amir Yahia, son of Abdul Latif-ul-Kasvini-ul-Shiai, died at Kasvin, his native city, A. D. 1552 Hej. 960. His book is styled the Lubbat-ul-Tuarikh and treats briefly of the history of Asia.—*Ouseley.*

ABDUL MUZUFFER Sultan, one of the Kutub-Shahi dynasty, A. D. 1580. See Hyderabad.

ABDUL HOSSAIN QUTUB SHAH. A. D. 1673—1683, a Kutub-Shahi king. See Hyderabad.

ABDUL KOORY, عبدالكري or ABD-UL-CURIA ISLAND. A rugged island midway between Socotra and Ras Jar 'd Afoon.

ABDULLAH, son of the Khalif Umar, who in A. D. 650 defeated Yesdejird. Yesdejird was then on his return from Khorassan, and for the last time put himself at the head of his subjects, and was defeated. See Istakhr.

ABD-UR-RAZZAQ. عبدالرزاق Jemal ud-din Abd-ur Razzaq bin Jelal ud-din Ishaq-us Samarkandi, was born at Herat in A.H. 816 (A. D. 1413), where his father was Kazi in the time of Shah Rukh. Shah Rukh, in 1441, sent him on an important mission to India, to the king of Vizianuggur. Subsequently on an embassy to Ghilan ; and he again was ordered to proceed as ambassador to Egypt. It was in January 1442, that Abd-ur-Razzaq, set out from Herat, and proceeding by way of the Kohistan and Kirman to Ormuz, thence sailed for India, arriving at Calicut after a long detention, wind-bound, at Muscat. He then proceeded via Mangalore and Bellour to Vizianuggur. Re-embarking from Calicut, he arrived in March 1444, at Kalahat in Arabia—*India in the Fifteenth Century.*

ABDUL-AZEEZ. See Wahabi.

ABD-UL-HAKAL. See Wahabi.

ABD-US-SHEMS or SABA, founder of Mariaba. Amongst his sons were Hamyar, Amru, Kahlan and Ashaar. See Saba.

ABDUL WAHAB. See Wahabi.

AB-DUKH. Pers. A food in use in Persia, not always to be met with. Though a favourite dish with the Persians, and very refreshing, it is not at all suited to the stomach of a European.—*Ferrier Journ. p.* 49.

AB-DUZD. Pers. A subterraneous passage of water near the fort of Atak (Attock) The term means "the stealing of the water."—*Mohan Lal's Travels, p.* 38.

ABELIA RUPESTRIS, a Chinese plant introduced into England by Mr. Fortune.

ABELMOSCHUS ESCULENTUS. *W. & A.*

Hibiscus longifolius, *Roxb.*
„ esculentus, *Linn.*

Ram Turai.	...Beng.	Ram-Turai.	...Hind.
Dhenrus. ...	... „	Bhendi ...	... „
Ba-lu-wa.	...Burm.	Venda. ...	...Mal.
Yung-ma-dæ.	.. „	Genda mula.	...Sans.
Bhendi. ...	...Duk.	Bendakai also Vendi.	Tam.
Gumbo. ..	...Eng.	Benda. ...	...Tel.
Eatable hibiscus, Okro :		Quingambo.	West Indies.
Esculent Okro	...Eng.	Quigambo.	„
Bamia. ...	...Egypt.	Goombaut.	„
Ealo, Fr. of Mauritius.		Gombeau.	„

A herbaceous annual, a native of tropical America, largely cultivated all over India and Burmah, its capsules being held in much esteem as a vegetable. It is easily raised from seed and produces abundance of fruit, which is the only part of the plant that is eaten. The whole plant is mucilaginous, but the fruits or pods, the well known Bendi kai of the Tamils, are highly so. The fruits are boiled whole and served up as a vegetable: or the seeds are added like barley to soup, and are demulcent. The young pods are pickled like capers, its ripe seeds when allowed to dry, and parched, can with difficulty be distinguished from genuine coffee. Its mucilage has been recommended as a demulcent, in coughs, in the form of lozenges, but they are not easily digested. The deep purple juice of the stigmas can be communicated to paper. Doctor Riddell strongly recommends this plant as furnishing an excellent fibre for the manufacture of paper. The fibres are said to be exported to a small extent from India, as one of the hemps of commerce, and by Dr. Roxburgh's experiments, a bundle of them bore a weight of lbs. 79 when dry and lbs. 95 when wet. At the Madras Exhibition of 1855, samples were received from various districts, but nearly all discoloured and their strength impaired by steeping. They retain their gloss even when very brown and rotten.—*American Committee of Patents for* 1854; *O'Shaughnessy, Dispensary, pp.* 215-217; *Pharmacopœia, p.* 434; *Roxb. Flor. Indica,* III. *p.* 210; *Royle, Fib. Plants*; *Useful Plants*; *Madras Exhibition Juries' Reports*; *London Exhibition of* 1862; *Mason.*

ABELMOSCHUS FICULNEUS. *W. & A.; W. Ic.*

Hibiscus prostratus, *Roxb.*

Parupu Benda. TAM. | Nella Benda. TAM.

Flowers white. The bark contains a large proportion of white reticulated fibre similar to that obtained from the mulberry, and useful for gunny bags and paper. It grows abundantly on the black cotton soils of India. At the Madras Exhibition of 1855, Mr. Jaffrey exhibited a very good clean sample of this fibre, of great length, but not very strong.—*Madras Exhibition Juries' Reports*; *Robert Brown.*

ABELMOSCHUS MOSCHATUS. *Mœnch? W. & A.; W. Ic.*

Hibiscous abelmoschus, *Roxb. & Rheede.*

Hub-ul-Mashk.	...AR.	Kasturi. ...	...HIND.
Ba-lu-waki.	...BURM.	Catt-kasturi.	...MALEAL.
Kapu Kinaissa.	...CYNGH.	Cutta-kasturi.	„
Musk-Mallow.	...ENG.	Kastura Benda.	...TAM.
Kala-kasturi.	...DUK.	Vittulei-kasturi.	...TAM.
Kala-kasturi.	...GUZ.	Karpura benda.	...TEL.
Mushk-dana.	...HIND.		

A gaudy flowering annual with blood coloured eyes, on its large yellow blossoms, a native, of various parts of India, flowering in the rainy and cold seasons. Its brown seeds are, the Hub-ul-Mashk of the Arabs, so called because of their smell and taste resembling a mixture of musk and amber, and, on burning, a similar odour is evolved. They are kidney-shaped and of the size of hemp-seed, and are used to perfume powders and pomatums. They are found in all the bazaars and are reputed to be useful in snake bites, when bruised and applied externally and internally, or bruised and steeped in rum or arrack. In Dr. Roxburgh's experiments, the fibre broke with a weight of 107 lbs. The plant, like A. esculentus, abounds in mucilage, and is said to be used in Northern India, to clariy sugar. Sir W. O'Shaughnessy did not find the seeds to have any emetic property as alleged by Dancer.—*Roxburgh, III.* 202; *O'Shaughnessy, p.* 217; *Mason's Tenasserim*; *Juries' Reports Madras Exhibition*; *Useful Plants of India.*

ABELMOSCHUS TETRAPHYLLA. At the Madras Exhibition of 1857, Mr. Jaffrey exhibited an excellent, white and strong fibre, obtained from this plant. Its flowers large, yellow, with a dark centre: abundant in Girgaum woods, Bombay. Wight in his Icones, 951, figures, also, A. angulosus.

ABERMOORDAH. PERS. ابرمرده Sponge.

ABGINAH. ARAB. آبگینه Glass.

ABGOON. PERS. آبگون Starch.

ABHAL. PERS. ابهل Berries of Juniperus communis: Juniper berries.

AB-I-DHANG. PERS. آب دهنگ This is the usual drink amongst the Ilyats in Northern Persia. It is butter milk weakened with water, and to which a little salt is added.

ABHAYA DEVA, a king of the Pala dynasty of Gaur, about A. D. 1439.

ABHIANGANA ST'NANAM. Amongst Hindus, a ceremonial, on the wedding day, when the bride and bridegroom are anointed with oil. See Hindu.

ABHIDHARMMA, the third division of the sacred writings of the Singhalese buddhists, addressed to the Dewas and Brahmas.—*Hyder's Eastern Monachism, p.* 433.

ABHIGNYAWA. Amongst the Singhalese buddhists, five great powers attached to the Rahatship.—*Hyder's Eastern Monachism, p.* 433.

ADHIKARANA-SAMATA-DHARMMA. A class of buddhist priestly misdemeanours.—*Hyder's Eastern Monachism, p.* 433.

ABHIMANIA. See Inscriptions.

ABHIR. HIND. Cow-herd.

ABHIRA, the shepherd country, an ancient name for the country between the Tapti and Devagurh.

ABHUTI TRASTVAR. See Hindu.

AB-I-BALAD, a mountain torrent in Susiana. See Khuzistan.

ABIES, the Fir genus of coniferous plants, has many species which produce valuable timbers. They grow in the Himalayas, in Japan, the Philippines and China. Dr. Hooker says, of the Sikkim Himalayas, that Abies Brunoniana, A. Smithiana, and A. Webbiana, with Larix Griffithii are the only pines whose woods are considered very useful; and that in Sikkim, none produce any quantity of resin, turpentine, or pitch, which may perhaps be accounted for by the humidity of the climate.—At Choongtam, in Sikkim, the yew appears at 7000 feet, whilst, on the outer ranges (as on Tonglo), it is only found at 9,500 to 10,000 feet; and whereas on Tonglo it forms an immense tall tree with long sparse branches and slender drooping twigs, growing amongst gigantic magnolias and oaks, at Choongtam it is small and rigid, and much resembling in appearance the English churchyard yew. At 8,000 feet, the Abies Brunoniana is found, a tree quite unknown further south. But neither the larch nor the *Abies Smithiana* (Khutrow) accompanied it. The yew, he says, spreads east from Kashmir to the Assam Himalaya and the Khasia mountains; and the Japan, Philippine Islands, Mexican, and other N. and S. American yews belong to the same widely diffused species. In the Khasia, (its most southern district) it is found as low as 5,000 feet above the sea level. In descending from Nango in East Nepaul, Dr. Hooker passed at first through rhododendron and juniper, then through black silver fir (*Abies Webbiana*), and below that, near the river, he came to the Himalayan larch, a tree quite unknown, except from a notice in the journals of Mr. Griffith, who found it in Bhutan. It is a small tree, twenty to forty feet high, perfectly similar in general characters to a European larch, but with larger cones, which are erect upon the very long, pensile, whip-like branches. He adds, its leaves, now red, were falling, and covering the rocky ground on which it grew, scattered amongst other trees. It is called "Saar" by the Lepchas and Cis-Himalayan Tibetans, and "Boargasella" by the Nepaulese, who say it is found as far west as the heads of the Cosi river: it does not inhabit Central or West Nepaul, nor the North-West Himalaya. The distribution of the Himalayan pines, he says, is very remarkable. The Deodar has not been seen east of Nepal, nor the *Pinus Gerardiana*, *Cupressus torulosa* or *Juniperus communis*. On the other hand, *Podocarpus* is confined to the east of Katmandoo. *Abies Brunoniana* does not occur west of the Gogra, nor the larch west of the Cosi, nor funereal cypress (an introduced plant however) west of the Teesta, in Sikkim. Of the twelve Sikkim and Bhotan *Coniferæ* (including yew, juniper, and *Podocarpus*) eight are common to the North-west Himalaya (west of Nepal) and four are not: of the thirteen natives of the North-west provinces, again, only five are not found in Sikkim, and, he adds, I have given their names below, because they show how European the absent ones are, either specifically or in affinity. I have stated, he continues, that the Deodar is possibly a variety of the Cedar of Lebanon. This is now a prevalent opinion, which is strengthened by the fact that so many more Himalayan plants are now ascertained to be European than had been supposed before they were compared with European specimens; such are the yew, *Juniperus communis*, *Berberis vulgaris*, *Quercus ballota*, *Populus alba* and Euphratica, &c. The cones of the Deodar are identical with those of the Cedar of Lebanon: the Deodar has, generally, longer and more pale bluish leaves and weeping branches, but these characters seem to be unusually developed in English gardens; for several persons, well acquainted with the Deodar at Simla when asked to point it out in the Kew gardens, have indicated the Cedar of Lebanon, and when shown the Deodar, declare that they never saw that plant in the Himalaya.—*Hooker's Him. Jour.* vol. II. p. 41. Mr. Hodgson in his Nagasabi (pp. 342-3) gives nine species of Abies, as occurring in that island, viz.,

A. Tsuga S and Z.
A. (Picea) firma „
A. („) homolepis „
A. Microsperma. LIND.
A. Veitchii LINDLEY.
A. Alcoquiana, LINDLEY.
A. Bifida. S and Z.
A. Jezoensis
and
A. Smithiana, LOUDON.

Some botanists bring some of the pines, into this genus, while others put species of Abies amongst the pines. A. Araragi of Siebold, is a Japan tree with a brown wood, used for various domestic purposes, and the A. Momi, Sieb. also of Japan, is valued for the whiteness and fine grain of its wood.

Notwithstanding the similarity between the Deodar and the cedar of Lebanon, the Pinus cedrus of Linnæus, which grows in Lebanon and the Taurus Range, the latter seems a distinct species.—*Dr. Hooker's Him. Journ. Vol.* II, *p.* 41; *Hodgson's Nagasaki* 342-3; *Punjab Report.*

ABIES BALSAMEA, the Balm of Gilead. See Evergreens, Gums and Resins.

ABIES BRUNONIANA, *Hooker.*

Pinus Brunoniana, *Wall.*
„ dumosa, *Lamb.*

Deciduous Silver Fir. ENG. | Semadoong. TIB.

Grows in Nepaul, Bhutan and Gossain Than. This species is repeatedly noticed by Dr. Hooker; who at one place, says, that the wood of *Abies Brunoniana* ("Semadoong") is like the others in appearance but is not durable; its bark is however very useful. Stacks of different sorts of pinewood were stored for export to Thibet, all thatched with the bark of *Abies Brunoniana*. In the dense and gigantic forest of *Abies Brunoniana* and silver fir, he measured one of the former trees, and found it twenty-eight feet in girth.—It grows occasionally in dense forests, to a height of 70 to 80 feet, with a clear trunk of from 14 to 20 feet, and a spreading, very branching head.—*Eng. Cyc.: Hooker's Him. Journal*

ABIES DEODARA.

Pinus Deodara, *Lambert.*
Cedrus, do.

Sacred Indian Fir,	Eng	Kelon of Kullu and Kangra.	
Deodara,	„		
Diar,	Hazara.	Deva dara,	Hind.

A magnificent tree with a trunk from 12 to 30 feet in girth, growing on the mountains of Kedar Kantha, Nepaul and Thibet, up to heights of 7,000 and 12,000 feet, as also in the woods of Almorah, at Kullu and Kangra and in Kaghan Hazara. It resembles the cedar of Lebanon, but, unlike it, the resinous wood of the Deodar is very durable, lasting from 200 to 400 years. It has succeeded well in England. —*Royle's Illustr. p.* 350; *Eng. Cyc.*; *Hooker's Him. Jour.*; *Punjab Report, p.* 79 & 180.

ABIES KHUTROW. Syn. of Abies Smithiana.

ABIES KŒMPFERI.

Pinus Kæmpferi, *Lamb.*

A native of Japan; found wild upon the mountains of Fako.

ABIES LARIX. See Evergreens.

ABIES MORINDA. Syn. of Abies Smithiana.

ABIES PICEA. See Evergreens.

ABIES RESINA. See Turpentine.

ABIES SMITHIANA, *Hooker.*

Abies Khutrow ?
„ morinda ?
Pinus Smithiana, *Wallich.*

Indian Silver Fir.	Eng.	Rai.	Kullu.
Spruce Fir.	„	„	Kangra.
Seh.	Lepch.	Kachan.	Kaghan.

This tree attains an enormous size on the slopes of the Himalayas, growing with nearly opposite branches. Dr. Hooker, at one place, tells us, that the spruce, *Abies Smithiana*, "Seh" has white wood, which is employed for posts and beams. At another, when mentioning that the beautiful Deodar was seen towering above the other trees, and, although all the specimens were comparatively young, they were yet striking and graceful, he adds that, near it, was *Abies Smithiana*. It had a dark and sombre appearance, yet it was peculiarly graceful, owing to its symmetrical form and somewhat pendulous habit. Again, he says, that towards Lamteng, in Sikkim, the path left the river, and passed through a wood of Abies Smithiana, which is also called *A. Khutrow*, *A. Morinda*. Dr. Hooker had not before seen this tree in the Himalaya: it is a spruce fir, much resembling the Norway spruce in general appearance, but with longer pendulous branches. The wood is white, and considered indifferent though readily cleft into planks.—*Hooker's Him. Jour.*; *Punjab Report.*

ABIES THUNBERGII.

Pinus Thunbergii, *Lamb.*

A scarce plant in Japan.

ABIES TORANO, *Siebold.*

ABIES PINDROW, *Royle.*

Pindrow,	Hind.	Morinda,	Hind.

A magnificent species, even to the limits of the forests, growing in Kemaon along with the Deodar. It comes near, and Hooker describes it as identical with A. Smithiana, A. Webbiana, —*Royle's Illustr.*

ABIES WEBBIANA, *Hooker.*

Pinus spectabilis, *Lamb.*
„ Webbiana, *Wallich.*

Webb's Fir.	Eng.	Gobrea.	Hind. ?
Purple coned Fir.	Eng.	Sallur.	„ ?
Silver Fir.	„	Oonum.	„ ?
Chilrow of Northern Himalaya.		Dunshing.	„ ?
		Tos, Kullu and Kangra.	

This fir tree grows at great elevations on the Himalayas, where it is one of the principal ornaments of the forests. It attains a height of 80 or 90 feet, with a diameter near the ground of thirty or forty feet. Dr. Hooker tells us that at Choongtam, this tree attains thirty-five feet in girth, with a trunk unbranched, for forty feet. As the subject of firewood is ~~of every day~~ interest to the traveller in these regions, he mentions that the rhododendron woods afford poor fires; juniper burns the brightest, and with least smoke; *Abies Webbiana*, though emitting much smoke, gives a cheerful fire, far superior to larch, spruce, or *Abies Brunoniana*. At Darjiling, oak is the common fuel; alder is also good. Chesnut is invariably used for blacksmiths' charcoal. Magnolia has a disagreeable odour, and laurel burns very badly. According to Hooker, the silver fir (*Abies Webbiana*, Dunshing) also splits well; it is white, soft, and highly prized for durability. Dr. Cleghorn says it is not much valued and is used for shingles. The larch of Northern Asia (*Larix Europœa*) is said to produce a pungent smoke which Dr. Hooker never observed to be the case with the Sikkim species.—*Hooker's Him. Jour*; *Royle's Ill. Him. Botany, p.* 350; *Timber Trees*, 2nd Ed. *p.* 189; *Punjab Report.* See Evergreens.

AB-i-GUL. Pers. Rose Water.

ABIM. Sing. Opium.

AB-i-MA. Pers. Literelly mother of the waters, the Amoo or Oxus river.

ABINATTA. SINGH. Poppy seed.

ABIR. AR. Ambergris.

ABIR. عبير ARAB. RANDA. HIND. a perfumed powder, which is rubbed on the face or body, or sprinkled on clothes to scent them: There are many receipts, but one kind is composed of rice flour, or the powdered bark of the mango tree or deodar, camphor and aniseed. A superior kind is prepared from powdered sandalwood or wood aloes, Curcuma zerumbet (Kuchoor), or Curcuma zedoaria (ambi huldee), rose flowers, camphor, and civet cat perfume, pounded, sifted and mixed. In every case it is a mixed perfume, of which the principal ingredients are yellow sandal, violets, orange flowers, aloes-wood, musk, true spikenard and rose water. It is a term applied in India, to any perfumed powder, and is often given to Curcuma zerumbet and saffron q. v.—*Herklots*. See also Abeer.

AB-i-RAWAN. PERS. Fine Muslin.

AB-i-SHEREEN. PERS. The Hindyan River.

ABISHEGAM. SANS. Makes a part of the Pancha Shegam, a hindu ceremony which consists in pouring milk on the lingam. This liquor is afterwards kept with great care, and some drops are given in the Pancha Shegam to dying people, that they may merit the delights of the Kalaisson. Traces of this Abishegam ceremony are found in the earliest antiquity. The primitive race of men had a kind of sacrifices, called Libation, which was performed by pouring some liquor, but especially oil, in honour of the divinity. The natives of India have preserved this custom, not only in respect to ~~the lingam~~, but also in honour of their other deities. They usually offer them libations, wash them with cocoanut oil, melted butter, or water of the Ganges. They always rub them with oil or butter when they address prayers, or present offerings to them; so that all their idols are black, smoked, plastered, and dirtied with a fetid grease. The Talopoins of Pegu, and Ava, and the priests of Siam, also wash their idols with milk, oil, and other liquids. It is well known also, that the Jews have had sacred stones, which they anoint with oil, and to which they gives the name of Betyle.—*Sonnerat's Voyage, p.* 159 & 160.

ABISTADA LAKE, between Hamoon and the Kabul river, is a receptacle for the waters of Affghanistan. No two authorities, however, agree about its extent, which no doubt varies with the seasons; some describe it as being in appearance an inland sea, while others confine its diameter to a few miles.—*British World in the East*, *Ritchie*, *Vol* II. *p.* 12.

AB-i-ZAL. A river in Khuzistan which unites with the Kherkha river.

ABKARRY. Revenue derived in India from duties levied on the manufacture and sale of inebriating liquors, as toddy, pachwai, and arrack; also on intoxicating drugs, whether in substance, infusion or extract, as opium, bhang, churrus: also on certain licensed distilleries, and on shops licensed to sell by retail.—*Wilson*.

ABLAK. ابلق ARAB. HIND. PERS. Piebald.

ABLOOS. BENG. Diospyros ebenum, Indian Ebony or Smooth date plum tree.

ABLUTIONS amongst the Hebrews, Hindus and Mahomedans are very carefully attended, and are included as part of their religious rituals. They are allotted to various periods of the day, and varied to meet particular forms of purification. The Hebrew ceremonial, as still practised by their Jewish successors, is laid down in the books of Moses and is generally followed by mahomedans, both for men and women, mahomedans using dry sand of the desert when water is not obtainable for their Wazu, before prayers. The hindu ritual is severe on this point, and along the banks of the sacred Ganges crowds of men and women may be daily deserved. Their Sthnanam, however, as also their ritual purification before eating may equally be performed in their own houses. The Buddhists of Asia are less strict. Though so frequently enjoined in the Bible, as parts of religious ceremonials they are even more stringently carried out by Hindus, though less stringently so by Mahomedans. The Hebrews, in Genesis XXXV. 2, were ordered to put away the strange gods; be clean, and change your garments, and a Hindoo considers those cloths defiled in which he has been employed in business, and always changes them before eating and worship. Again, in Genesis XLIII. 24, "The man brought the men into Joseph's house, and gave them water, and they washed their feet," and with Hindus, as soon as a guest enters, one of the first civilities is presenting water to wash his feet. So indispensable is this, that water to wash the feet makes a part of the offerings to an image. Solomon's Song, v. 3, says, I have washed my feet; how shall I defile them? A Hindu wipes or washes his feet before he retires to rest. If called from his bed, he often excuses himself, as he shall daub his feet; and as he does not wear shoes in the house, and the floor is of clay, the excuse seems very natural. In Leviticus XIV. 8, 9, and 52; relating to personal uncleanness, there are similar customs prevalent among the Hindus, but in the Mosaical institutions there is no law like that of the Hindus, which rules that a Bramhan becomes unclean by the touch of a Sudra, or a dog, or the food of other castes.—The Hindu food ritual is given in Mark VII. 3, where the Pharisees and all the Jews, except they wash their hands oft, eat not, for bathing is an indispensable pre-requisite to the first meal of the day, and washing the hands and feet is equally so before the evening meal. Mahomedans use water or sand, before prayers, before meals, and after many ordinary occurrences.—*Ward's Hindus*; *Herklot's Kanun-i-Islam.*

ABNUS, آبنوس Arab. Guz. Hind. and Pers. Diospyros ebenaster. See Ebony, Diospyros, Ebenus.

ABOO or ABU in Lat. 24° 45' N. and Long. 72° 46' E. in Rajwara, the highest peak in the Aravalli range, 50 miles N. E. of Deesa, the top of the peak, at the station, being 3,850 feet above the sea. It is a large isolated mountain, in the territory of the Rao of Serohi; 45 miles N. E. from the military cantonment of Deesa, and to the S. W. of the Aravalli range, from which it appears to be distinct. It is situated on the western border of the desert of Rajpootana, and one of the philanthropic Lawrence Asylums has been located on it. It is a magnificent mass of mountain in the western extremity of Ajmeer, with a fine lake on the top of the hill, of which drawings were taken by Captain Grindlay. Its summit is covered with exquisite vegetation, in which white and yellow jasmin and wild roses predominate; every glen and knoll has its tradition and romance, and the Jain temples of white marble offer examples of architectural decoration which probably are unequalled in the world for elaboration and costliness. Its fame is of great antiquity, and pilgrims appear to have been attracted to its sacred temples since A. D. 1034, though no notice was taken of it in the maps of India before the year 1806. Hindoo temples are said to have existad here in remote ages, dedicated to Siva and Vishnu: but all traces of them have disappeared. On their traditional site at Dilwarra, the famous Jain temples now stand, built by Bimul Sah, a rich Jain merchant, and others; for, in Hindu-Jain estimation, Aboo is the holiest spot on earth. The base of Mount Aboo is about 13 miles long, 11 broad, and 50 in circumference. It rises abruptly from the sandy plains, and the ascent is consequently steep and winding. The slopes of the hill are generally speaking, covered with trees and shrubs; the intervening herbage affording pasturage during most parts of the year to the adventurous village cattle. The summit of the hill is very irregular; consisting of peaks, ridges, and valleys, sloping plateaux, and extensive basins. The highest point is called Guru Sicher, and is 5,700 feet above the level of the sea. The average height of the station is 4,000 feet. Colonel Tod describes the neighbourhood of Mount Aboo, as the site in which, from the most ancient times, the ascetics known as Aghora or Marda-khor, or man-eaters have resided. The aborigines of the hill appear to have been a sort of Bheels. They seem at some time or other to have become mixed with marauding Rajpoots from the plains, and with the workmen who were so long engaged in building the Dilwarra temples. This mixed race call themselves Loke, and are now in possession of almost all the land under cultivation.

Taking a section of about sixty miles in the Alpine Aravalli, from the ascent at the capital of Oodipoor, passing through Oguna, Panurna, and Meerpoor, to the western descent near Sirohi, the land is inhabited by communities of the aboriginal races, living in a state of primeval and almost savage independence, owning no paramount power, paying no tribute, but with all the simplicity of republics; their leaders, with the title of Rawut, being hereditary. Thus the Rawut of the Oguna commune can assemble five thousand bows, and several others can on occasions muster considerable numbers. Their habitations are dispersed through the vallies in small rude hamlets near their pastures or places of defence. Aboo is subject to frequent shocks of earthquakes. The Rao of Sirohi, at first with some difficulty, was induced to approve of the sacred ground being used as a station for European residents and soldiers. As a Sanitarium, the most beneficial season for a change to Aboo is the hot weather. The cool and mild monsoon season, is also adapted to many cases that droop and sink in the hot monsoon weather of the plains. The winter months from December to March are very healthy to most men, but should be avoided by those suffering from any organic visceral disease, lung affections, syphilitic or rheumatic weakness.

	Usual extreme of Summer heat in shade.	Usual extreme of Winter cold in shade.	Average daily Temperature throughout the year in shade.	Maximum Temperature in Sun's rays.	Usual range of Thermometer
Deesa....	110°	40°	74·1°	147·7°	70°
Aboo.....	90°	40	69·9	112·9	50°

	Average Annual Rain fall.		Average Annual Rain fall.
Aboo........	55·0 Inches.	Mahabaleshwar ...	254·0 In.
Deesa	25·0 ,,	Poorundhur	72·2 ,,
Bombay ...	75·0 ,,		

Dr. Cook, in B. Medical Transactions, No. VI, *New Series*, 1860. *p.* 1897-8; *Buist's Catalogue*; *Cunningham's Bhilsa Topes*; *Tod's Travels, p.* 84. See Aghora, Khatri.

ABOO AREESH, a district of Yemen. See Jezan.

ABOO BAKR, the first Kalif after Mahomed. Mahomed married his daughter. See Ali; Masailma El-Aswad, Abu-bakr.

ABOO KARIB, the most powerful of the Himyaritic monarchs. He was commonly called Tobba. In A. D. 206, he covered the Kaaba with a tapestry of leather and supplied its door with a lock of gold. See Kaba.

ABOOL-FAZL, or according to the Arabic pronunciation, Abou'l-Feda, a mahomedan historian, who lived in the time of the Emperor Akbar. He was the eminent minister of that great king, and his land settlements are still quoted in India. He was, also, enabled, by the most assiduous researches, and the assistance of the Pundits, to publish a Compendium of Hindu Jurisprudence in the Ayeen Akbaree, which may be considered as the first genuine communication of its principles to persons of a different religion.—*Chatfield's Hindustan, p.* 316. See Kashmir. Samarcand.

ABOO MAHATMA. A valuable ancient book presented to the Royal Asiatic Society, by Colonel Tod.—*Rajasthan,* Vol. I. p. 6.

ABOR. BOR and ABOR is an Assamese name for a people who call themselves Padam. Bor means tribute, hence Abor free from tribute, and the Padams are so arranged, into the payers of, and non-payers of tribute. They occupy the mountains to the north of the valley of the Brahmaputra river. They dwell in about lat. 27½ north and long. 95 east to the south of the Bor-Abor, and on the west or left bank of the Dihong river, on the southern face of the Himalayas on the borders of Thibet and China. Their capital is Membu, and higher up are the Bor Abors, whose capital is Simong. The capital of the Abors contained about 300 houses : the prerounding country contains palms, jack and ~~the in~~rubber trees, and they practice artificial irrigation and use suspension bridging of rattan. It is not uncommon for one Abor woman to have two husbands, living under the same roof, they being brothers. They bring to the plains in the cold weather, musk, skins of the musk-deer, ivory, copper pots and a poison called "Bees" extensively used in Assam to poison arrows, and probably a product from one of the Aconites. When first known they made periodical descents on the plains. They do not eat beef, but eat the buffalo. They carry bows and arrows, some of which are poisoned. Their dress is made of the bark of the Udhal tree. Bor is also said to mean "*great,*" and the term Bor Khampti is employed. The Bor Abor is the more distant, the more independent and stronger portion. Their unmarried men live in the *Morang,* a large building in the centre of the village for the reception of strangers, and in this custom, they resemble the practice of some of the Archipelago races. They sacrifice to certain deities of the woods and hills. The Bor Abor lie on the higher hills, and the similarity, or otherwise of their language to the Abor is not known. Considerable numbers of these people are also found on the shores of the two great northern branches of the Brahmaputra river.—*Indian Annals ; Latham's descriptive Ethnology* —See Bibor, Jubar, Kulta : India ; Semang ; Mishmi.

ABORIGINES of INDIA. There are large nations and innumerable smaller races scattered all over India, whose origin or date of arrival in the country is wholly unknown. The bulk of these immigrants seem however to have come from beyond the Himalayas on the north, at times ranging between 3,000 and 1,000 years before the Christian era. Small bodies, in the N. W. corner of the Peninsula, appear to be of Western origin, probably from ancient Babylonia. There are people in the Southern parts of the Peninsulas of India and Malacca, with marked Negro features, and such recur in the Archipelago Islands, with traces also, in the valleys of Northern India, as if there had once been a great Negro wave setting to the East. It is a subject of much value to Ethnologists, and notices of many of the races will be found under INDIA. The Aboriginal tribes of the Himalayas have been described in the Orient. Chris. Spec. 1842, Vol. III. Second Series, I.—4. Those of India by General Briggs, in Edin. Phil. Jl. 1851, 331, and the language of the Aboriginal Hindoos, Dr. Stevenson, in Bom. As. Trans. Vol. I. 163. Mr. H. R. Hodgson, however, has been the largest contributor, and has described the Aborigines of India, their languages, &c., in Bl. As. Trans. 1847, Vol. XVI. Those of the Sub-Himalayas, Ibid, 1848, Vol. XVII. 73, and gave a Vocabulary of the languages of those of Southern India, N. Eastern, and Central India, Ibid, 1849, Vol. XVIII. and Vol. XVI. p. 551. Those of the Neilgherry Hills—Buddagars, Todawars, Cotters, and Mulli-kurumbers, have been given by Col. Lambton, in Bom. Geo. Trans. Vol. IV. 23.

The great bulk of the settlers in India, labourers, farmers, foresters, shepherds, milkmen, artificers and professional races, seem to have come from the North-west by way of Kabul and Candahar ; down the valleys of the Indus, of the Ganges and Brahmaputra, and to have streamed through the gaps in the Himalayas, and from the practice followed of living apart in castes, who neither eat together nor intermarry, each of the immigrant Hindu tribes and races are now as distinctly marked as on the day of their first appearance. The Mahomedans, even, who have less of such caste habits, although they also to a considerable extent follow the ancient custom of marrying amongst their own people, are still readily distinguishable from one another ; tall, powerful, fair men of the Affghans, fair robust Moghuls from Tartary, fair slender nou-aits from Southern Persia, the darker men of Arab origin, and the powerful, large made traders, known in the south as Labbe. All these, amongst the Hindus, Brahmans, Chetris, Vesyas and Sudras, and amongst the Mahomedans, Syeds, Shaikhs, Moghuls and Pathans, are in great nations. But, throughout all India, in hamlets, in forests and the plains, in towns, in mountain valleys, and on the mountains, are innumerable smaller bodies or tribes, with forms, and habits, and following pursuits, quite distinct from each other. There is no doubt, however, that their languages show two great divisions, Arian and Turanian. Mr. Hodgson mentions, that of seven of the southern tongues, five belong to the cultivated class, viz., Tamil, Malayalam, Telugu, Carnataca, Tulava; and two to the uncultivated class, viz., Curgi and Todava. In regard to the cultivated tongues of the south, Mr. Elliot observes that the aptitude of the people at present to substitute prakritic words for aboriginal ones is such a stumbling block in the search for affinities, as to require pains and knowledge to avoid; and he instances (among others) the common use of the borrowed word rakta for blood, in lieu of the native term nethar, by which latter alone we are enabled to trace the unquestionable ethnic relationship of the Gonds (even those north of the Vindhya) with the remote southerns speaking Telugu, Canadi and Tulava. The Himalayan languages form an exception to this assumed general prevalence of the Tamulian type of speech. On the subject of the local limits and mutual influence at the present day of the cultivated languages of the south upon each other, Mr. Elliot remarks that "all the southern dialects become considerably intermixed as they approach each other's limits. Thus, the three words for egg used indifferently by the people speaking Canarese, (matte, tetti, gadda) are evidently obtained, the first from the Tamulian, matta; the last, from the Telugu, gadda. This intermixture, which is of ordinary occurrence in all cognate tongues, is here promoted specially by extensive colonization of different races, as of the Telugus into Southern India under the Bijanagar dynasty, where they still exist as distinct communities—and of the followers of Ramanuja Achary into Mysore, where they still are to be seen as a separate class speaking Tamil in their families, and Carnataca in public. The Reddis also, an enterprising race of agriculturists, have migrated from their original seats near Rajahmundry, over the whole of Southern India, and even into the Maharashtra country, where they are considered the most thriving ryots, and are met with as far north as Poona." The cultivated tongues of Southern India, are noticed in Ellis' Dissertation and Wilson's Mackenzie Manuscripts. Of the uncultivated tongues of Southern India, he observes that the dialects of the Curumbers and Irulers and other mountain races of the south are well worth exploring. The pagan population of India is divided into two great classes, viz., the Arian, or *immigrant*, and the Tamulian or *aboriginal*. The unity of the Arian family, from Wales to Assam, has been demonstrated. The Tamulian race, confined to India and never distinguished by mental culture, offers a humbler subject for inquiry than the Arian. But, as the moral and physical condition of many of the scattered members of the Tamulian body is still nearly as little known as is the (assumed) pristine entirety and unity of that body, this subject has two parts, each of which is of interest, to the philosopher and the statesman. The Tamulians are now, for the most part, British subjects: they are counted by millions, extending from the snows to Cape Comorin; and, they are as much superior to the Arian Hindus in freedom from disqualifying prejudices, as they are inferior to them in knowledge. In every extensive jungly or hilly tract throughout India there exist hundreds of thousands of human beings in a state not materially different from that of the Germans as described by Tacitus. These primitive races are the ancient heritors of the whole soil, from all the rich and open parts of which they were expelled by the hindus. It is a worthy object to ascertain when and under what circumstances this dispersion of the ancient owners of the soil took place, at least to demonstrate the fact, and to bring again together the dissevered fragments of the body, by means of careful comparison of the languages, physical attributes, creed and customs of the several (assumed) parts. It is another object, not less interesting, to exhibit the positive condition, moral and material, of each of these societies, at once so improveable and so needful of improvement, and whose archaic status, polity and ideas offer such instructive pictures of the course of human progression. The unity of the Arian race has been demonstrated chiefly through lingual means, and much has been done, of late years similarly to demonstrate the unity of the Tamulian race. But this is difficult, for there is an immense number of spoken tongues among the Tamulians, whereof have already been ascertained not less than 28 in the limited sphere of Mr. Hodgson's inquiries; and all these, though now so different as to be mutually unintelligible to the people who use them, require to be unitised. The long and perfect dispersion and insulation of the several members of the Tamulian body have led to an extremity of lingual diverseness which, as contrasted with the similarity of their creed and customs, is the enigma of their race. In Hindi and Urdu, though the structure is the same, vocables make a difference which is broad and clear, owing to the evidently foreign elements of the diversity. Not so, however, in the Tamulian tongues, in which there is very little of foreign element: all is homogeneousness in the vocables, and from its sameness of kind is less open to distinct separability. A summary comparative vocabulary was framed some years back by the Rev. Mr. Brown, and it has been extensively filled up with the dialects of the mountaineers round Assâm. With regard to the determination of the moral and physical status of each aboriginal people, none of the Tamulians have any old authentic legends, and being all very uninformed, save in what respects their immediate wants and habitual ideas, it is exceedingly difficult to learn any thing of this sort from them *directly*; their creed especially is a subject of insuperable difficulty, through the sole medium of direct questioning: their customs, again, are apt to afford but negative evidence, because, being drawn from nature, they tend to identity in all the several nations; and lastly, their physical aspect is of that osculent and vague stamp, that, what it does prove is general, not particular.

The great Scythic stem of the human race is divided into three primary branches, or the Tungus, the Mongol, and the Turk. The first investigators of this subject urgently insisted on the radical diversity of these three races: but the most recent inquirers more incline to unitise them. Certainly there is a strong and obvious character of physical (if not also of lingual) sameness throughout the Scythic race: and it is remarkable that this peculiar character belongs also to all the aborigines of India, who may be at once known, from the Cavery and Vigaru to the Cosi and Bhagarati, alpine feeder of the Ganges, not its Bengal defluent, by their quasi-scythic physiognomy, so decidedly opposed to the Caucasian countenance of the Arians of India, or the hindus. Mr. Hodgson apprehends that there will be found among the aborigines of India a like lingual sameness, and that very extended and very accurate investigation will consequently alone suffice to test the real nature and import of the double sameness, physical and lingual. That all the aborigines of India are Northmen of the Scythic stem, seems decidedly and justly inferrible from their physical characteristics. But, inasmuch as that prodigious stem is everywhere found beyond the whole Northern and Eastern boundary of India, not merely from Attok to the Brahmaputra, where these rivers cut through the Himalaya, but from that point of the latter river all the way to the sea; and inasmuch as there are familiar ghats or passes over the Himalaya throughout its course along the entire confines of India from Kashmir to the Brahmakund, it follows of necessity that very careful and ample investigation will alone enable us to decide upon the question of the unity or diversity of the aborigines of India, in other words to decide upon the questions, whether they owe their confessed Scythic physiognomy to the Tungus, the Mongol or the Turk branch of the Tartars or Scythians, and whether they immigrated from beyond the Himalaya ("the hive of all nations") at one period and at one point, or at several periods and at as many points. Between Gilgit and Chittagong there are 100 passes over the Himalaya and its south-eastern continuation to the Bengal Bay; while for the time of passage, there are ages upon ages before the dawn of legend and of chronicle. Mr. Hodgson inclines to the opinion that the aborigines of the *sub-Himalayas*, as far east as the Dhansri of Assam, belong to the Thibetan stock, and east of that river to the Chinese stock—except the Garos and other tribes occupying that portion of the Hills lying between Assam and Sylhet; and that the aborigines of the *tarai* and *forest* skirting the entire sub-Himalayas, inclusive of the greater part of the marginal circuit of the Assam valley, belong, like those last mentioned, to the Tamulian stock of aborigines of the plains of India generally. But what is this Tamulian stock? what the Thibetan stock? and what the Chinese? and to which of the three grand and well known branches of the Scythic tree (Tungus, Mongol, Turk) do the Tamulians, the Thibetans and the Chinese belong? Of the aborigines of Central India, of seven of whose languages, the three first came from Chyebassa, where they were prepared by Colonel Ouseley's Assistant, Captain Houghton; the 4th and 5th direct from Colonel Ouseley himself at Chota Nagpur; the 6th from Bhaugalpur prepared by the Rev. Mr. Hurder, and the 7th from Jabbalpur where Col. Sleeman's principal Assistant drew it up, the affinities of the tongues are very striking: so much so that the five first may be safely denominated dialects of the great Kol language: and through the Uraon speech we trace without difficulty the further connection of the language of the Kols with that of the "hill men" of the Rajmahal and Bhagalpur ranges. Nor are there wanting obvious links between the several tongues above enumerated—all which may be classed under the head Kol—and that of the Gonds of the Vindhia whose speech again has been lately shown by Mr. Elliot to have much resemblance both in vocables and structure to the cultivated tongues of the Deccan. Mr. Hodgson's hypothesis, in his essay on the Koch, Bodo and Dhimal, is that all the Tamulians of India have a common fountain and origin, like all the Arians; and that the innumerable diversities of spoken language characterising the former race are but the more or less superficial effects of their long and utter dispersion and segregation, owing to the savage tyranny of the latter race in days when the rights of conquest were synonymous with a license to destroy, spoil and enslave. That the Arian population of India descended into it about 3,000 years ago from the north-west, as conquerors, and that they completely subdued all the open and cultivated parts of Hindostan, Bengal and the most adjacent tracts of the Dekhan, as Telingana, Gujerat and Maharashtra or the Mahratta country, but failed to extend their effective sway and colonization further south, are historical deductions, confirmed daily more and more by the results of ethnological research. Brachmanes nomen gentis diffusissimæ cujus maxima pars in montibus (Ariana (Cabul) digit, reliqui circa Gangem. Cell. Geogr. And we thus find an easy and natural explanation of the facts that in the Dekhan, where the original tenants of the soil have been able to hold together in possession of it, the aboriginal languages exhibit a deal of integrity and refinement, whilst in the north, where the pristine population has been hunted into jungly and malarious recesses, the aboriginal tongues are broken into innumerable rude and shapeless fragments, but which may yet be brought together by large and careful induction.- *Mr. Hodgson, in Ben. As. Soc. Journ.* See India.

ABRA, surnamed Moochwal, or whiskered, one of the Bhooj family who came from Cutch in the time of Rinna Sowah, into whose family he intermarried. His son had offspring by a woman of impure caste and they assumed the name of Waghair with the distinctive appellation of manik or gem. The last four chieftains of this race were Mahap, Sadul, Samiah and Mulu-manik, who with all his kin and company of Waghairs, Badhails, Arabs, &c., after a desperate defence was slain in the storm or retreat.—*Tod's Travels, p.* 220, 440, 441. See Kattyawar.

ABRAHAM, ابراہیم the patriarch of three religions, Jewish, Christian and Mahomedan, is the earliest Hebrew personage, whose date can be fixed chronologically: from the emigration of Abraham, and the institution by him of religious ordinances, the consciousness of moral personality and, as a natural consequence, the consequence of personal chronology, may be said to date. He was a son of Terah, and brother of Nahor and Hanan born at Ur, and commonly called آل خلیل اللہ Ul Khalil Ullah the friend of God. His original language may have been Chaldaic, but the possibility of the language of Abraham remaining in its original state, during the 216 years that he and his family resided in Canaan, and the 430 years that the Hebrews abode in Egypt, and the 400 years, from the Exodus to the reign of David, that they dwelt in such intimate connection with the people of Palestine, is untenable.—*Kennedy on the origin of languages, p.* 25. *Bunsen, pp.* 373, *Vol.* I. See Kamran. Luristan.

ABRAH, a Jet tribe settled in Cutch Gandava. See Jet.

ABRAK. GUZ. HIND. ابرک Mica.

ABRAKA. SANS. of Mica,-Talc.

AB-RAWAN. PERS. and HIND. آب روان a cotton manufacture.

ABRESHAM. PERS. آبریشم Silk.

ABRESHAM. SAFED. PERS. ابریشم سفید White silk, cut into very minute pieces; is used in Ajmere to remedy impotence: four tolas cost one rupee.—*Genl. Med. Top. page* 126.

ABR-MURDAH. PERS.? Sponge.

ABROMA AUGUSTUM, *Linn.*

Ulut kambal.	...BENG.	Perennial Indian hemp....	...ENG.
Smooth stalked Abroma	... ENG.	Do. do. flax....	ENG.

A small perennial tree or shrub with soft velvetty branches and drooping flowers of the family of Sterculiaceæ, a native of various parts of the interior of India, and as far east as the Philippines, and grows so rapidly as to yield annually, two, three, or even four cuttings, fit for peeling. On this account, and on account of the beauty, strength, toughness and fineness of its fibres, it is deserving of more than common attention. The produce is said to be three times greater and one-tenth stronger than that of Sunn. It can be cultivated as an annual. If maceration be employed, its continuance must be guided by the heat of the weather. To prepare the fibre, the bark is steeped in water for about a week, beyond which they require no further cleaning, and in this state, without any subsequent preparation they are not liable to become weakened through exposure to wet. A cord made from these fibres bore a weight of 74 lbs., while that of Sunn only 68 lbs.—*Royle. Riddell. Roxb.* iii. 156, *Voigt* 108. *Cyclopædia of Natural History. Useful Plants.*

ABRUS PRECATORIUS. *Linn.*

Abrus minor, *Desv.*
Glycine abrus, *Linn.*
Orobus Indicus, *Burm.*
Abrus pauciflorus, *Desvalines.*

Ain-ul-dik...	... AR.	Kuni...	... MALEAL.
Sweta Kunch,	...BENG.	Kowni	... ... ,,
Kalo ,,	... ,,	Khak-shi? ...	... PERS.
Khyen rwæ,	...BURM.	Chashm-i-khoras...	,,
Rwæ-gnay,	... ,,	Maklam. ...	... SIAM.
Rwa-gnay,	.. ,,	Olinda ...	SINGH.
Gunch Retti,	...CASH.	Kundamni ...	... TAM.
Jungle bead tree....	ENG.	Gundamanni.	... ,,
Bead seed tree ...	,,	Gulivenda, ...	... TEL.
Liane a reglisse. ...	FR.	Guruginja ...	... ,,
Pater-noster erbze...	GER.	Gunja ...	... ,,
Gumcha...	... GUZ.	Yashti-madhukam.	,,
Guncha...	...HIND.	*The white variety α.* leucospermos.	
Gunch...	... ,,	Tella Guruginja ...	,,
Khak-shi...	... ,,	The black variety β. melanospermos.	
Rutti....	... ,,	Nalla-guruginja ...	,,
Dan-sot-ga,...	MALAY.	Khoroo-guezi.	...TURK.
Telae...	... ,,		

A native of India, Bengal, Assam, Burmah and the Moluccas, but now introduced into Africa and America. There are three varieties of this tree, designated from the colour of the flowers and seeds, erythrospermos, or red seeded with a black eye, leucospermos or white seeded also with a black eye and melanospermos or black seeded with a white eye, the colours of their flowers being respectively rose, dark and white. Those of a bright scarlet colour, with a jet black spot at the top, are used by the jewellers and druggists as weights, also for beads and rosaries, whence the specific name. From their extreme hardness and pretty appearance, people prize them for necklaces and other ornaments. They form an article of food in Egypt, though considered hard and indigestible. In fine powder goldsmiths use them to increase adhesion in the more delicate parts of manufactured ornaments.

The roots abound in sugar and mucilage, and are employed as a substitute for liquorice, for which they are perfectly suited in every respect. The leaves have a similar taste, and, mixed with honey, are applied externally in swellings of the body. Horsfield says that in Java the root is considered demulcent, and the mucilage is there combined with some bitter. It is a popular belief that they almost uniformly weigh exactly one grain, troy; but they vary from one to two grains. The Burmese use them within a fraction for two grain weights. One hundred and twenty, by one mode of reckoning, and one hundred and twenty-eight by another, make one tickal, which weighs, according to Captain Low, 253·75 grains troy. The wood is of no value—Wight in his Icones, 33, figures A fruticulosus, and Voigt names A. pulchellus—*Riddell. Useful Plants. Mason. O'Shaughnessy. Ainslie. Roxb. iii,* 257. *Voigt.* 228 *Mason. Faulkner.* ~~*Wight.*~~ *Bombay Products.* See also Liquorice Root.

ABSALOM. It is supposed he was interred near the spot where he was killed, for we read in 2 Sam. xviii. 17:—"And they took *Absalom*, and cast him into a great pit in the wood, and laid a very great heap of stones upon him."—*Robinson's Travels, Palestine and Syria, Vol. I. p.* 130-1.

ABSINTHIUM WOOD. See Wormwood.

ABU ABID ULLAH MAHOMED. A moor of the family which reigned over Malaga after the fall of the Kalifat.

ABUBA. TEL. ఆబూబ CapparisRoxburghii, *D. C.*

ABU-BAKR. The father-in-law of Mahomed and his successor in the Khalifat, in A.H. ii A.D. 932. See Kajar: Khalifs.

ABUK, AR. ابک also ZIBAKH, ARAB. زیبق Mercury.

ABU KUBAYS hill bounds Meccah on the east. According to many Mahomedans, Adam, with his wife and his son Seth, lie buried in a cave here. Others place Adam's tomb at Muna; the majority at Najaf. The early christians had a tradition that our first parents were interred under Mount Calvary; the Jews place their grave near Hebron. Habil (Abel), it is well known, is supposed to be entombed at Damascus; and Kabil (Cain) is believed to rest under Jebel Shamsan, the highest wall of the Aden crater, where he and his progeny, tempted by Iblis, erected the first fire-temple. The worship however, was probably imported from India, where according to the Vedas, Agni (the fire god) was the object of man's early adoration.—*Burton's pilgrimage to Meccah, Vol. III. p.* 198-99.

ABUL FARAGH, or Al-mufrian: Mar Grigorius Abul Faragh bin ul Hakim Haroun ul Malati, author of the book of dynasties, which he finished in Arabic, in the reign of Arghoon Khan, the last of Genghis Khan's grand-sons. He was a Jacobite Christian of the city of Malatia in Cappadocia. It was arranged in ten Chapters 1. On the Saints since Adam. 2. The Judges of Israel. 3. The Kings of Israel. 4. The Chaldean Kings. 5. The Kings called the Magi. 6. The ancient Greek Kings. 7. Latin Roman Kings. 8. Christian Greek Emperors. 9. Mahomedan Arabic Kings. 10. The Mogul Kings. He is the Abul Pharagius of history; though an Arabian writer, he was a Christian by religion and Prideaux notices him.—*Chatfield's Hindoostan, p.* 245.

ABULFEDA. This author of the geographical book, Taqwim-ul-bildan was the sovereign prince of Hama Syria. His name and titles at length were, Sultan Almalic Almuayd Amadaddin Abulfeda Ismael, the son of Malic Alafdal Nouradden Aly, son of Jumaladdin Mahmoud, son of Omar, son of Schahinschah, son of Ayoub, of the family of Aoubites. He died in the year 1331, A.H. 732.—*History of Genghizcan, p.* 409.

ABUL GHAZI. See Kathi: India. 309. Saba.

ABU OSAIBI. An Arab of the tribe Khazerij.

ABU RIHAN AL BIRUNI (born 970 died 1038) spent forty years in India, and composed his excellent work, the Tarikh-i-Hind, which gives a complete account of the literature and sciences of the Hindus at that time. Al Biruni had been appointed by the Sultan of Kharazm to accompany an embassy which he sent to Mahmud of Ghazni and Masud of Lahore.—*Muller's Lectures, p.* 141. See Tibet.

ABUSIVE TERMS, in Southern Asia, in character more resemble those occasionally used among the Hebrews than such as the people of Europe employ, the Eastern abuse being personal rather than spiritual. *In Samuel* xvii. 43, are the words. 'The Philistine cursed David by his gods,' and a hindoo sometimes, in a fit of anger, says to his enemy, 'The goddess Kalee shall devour thee.' 'May Doorga destroy thee.' But (1 Samuel xx, 30) says 'Thou son of the per-verse rebellious woman,' and the Mahomedans and Hindoos often cast reproaches in some such words as those: 'Thou son of a loose woman.' 'Thou son of a beggar woman.'—*Ward's Hindoos.*

ABUSHAHR, generally abridged into Bushahr, or Bushire, a town in the Persian Gulf which rose into notice during the last century, and is said to have been previously an inconsiderable village, the Arabic word *Abu* ابو signifies a "father": also "possessing," or "endowed with" &c., and *Shahr* شهر a "city or town"—*Ouseley's Travels, Vol.* I. *p.* 192.

"ABU SHAM." A familiar address in El Hejaz to Syrians. They are called "abusers of the salt," from their treachery, and "offspring of Shimr" (the execrated murderer of the Imam Husayn,) because he was a native of that country. —*Burton's pilgrimage to Meccah, Vol. III. p.* 114.

ABUTILON INDICUM. G. DON.

Sida Indica. *Linn. Roxb.*
Abutilon Asiaticum. *W. & A.*
Sida populifolia. *Roxb. & Rheede.*

Potari.	BENG.	Perin-tutti...	...TAM.
Tha-ma-khai-ok.	BURM.	Nugu benda.	...TEL.
Anda...	CYNGH.	Botla benda.	... „
Indian Mallow (countryMallow),	ENG.	Dudi chetu.	... „
Petari, also Kungani... ...	HIND.	Peddabenda.	... „
Payrin-tuthi. ...	MALEAL.	Tutti „ ...	... „
		Tutturu benda.	...TAM.

Voigt mentions twelve species of Abutilon as growing in India; this species, a small plant 2-3 feet, common in most parts of India, and cultivated in Burmah. It yields a rather strong fibre fit for the manufacture of ropes. The leaves are used in the same manner, in India and Burmah, as the marsh mallows in Europe, in decoction as an emollient fomentation, and an infusion of the root as a cooling drink in fevers. Wight remarks that there is no character of any importance to separate this species from the A. asiaticum.—To obtain the fibre, the plants are gathered and freed of their leaves and twigs, and are put out to dry in the sun for a couple of days. They are then taken up, tied into bundles, and placed under water for about ten days, after which they are taken out, and the fibres are well washed to remove the bark and other foreign matter that may be adhering to them, and are placed in the sun to dry.—*Voigt.* 114. *Roxb. III.* 179. *Drs., Wight, Mason, Short. Useful Plants.*

ABUTILON POLYANDRUM. *W. and A.*

Sida polyandra. *Roxb.*
„ Persica. *Burm.*

Grows at *Kandallà* on the Neilgherries and Nundidroog; yields a long silky fibre, resembling hemp, fit for making ropes, samples of which, as well as of that of the A. tomentosum, were shown by Mr. Jaffrey at the Madras Exhibition, though those of the latter were not considered of a superior quality.—*Roxb. III.* 173. *Voigt.* 114. *Jur. Rep. Mad. Ex., Useful Plants.*

ABUTILON TOMENTOSUM, *W. and A.*

Sida tomentosa, *Roxb.*

Too-thi ... ... TAM.

Some small indifferent specimens of fibre from this were exhibited from two or three districts at the Madras Exhibition of 1855.—*Roxb. Madras Exhibition Juries' Reports.* Wight also figures 68, A. crispum.

ABUVVA అబువ్వ Trichosanthes palmata, *R.*

ABU-ZAID-UL-HASAN. A writer of A.D. 915. See Tibet.

ABWAB. ابواب Heads or subjects of taxation: miscellaneous cesses, imposts and charges.—*Wilson.*

ABYSSINIA is at present divided into three great portions, that of Tigre comprehending the tract between the Red Sea and the Takazze, that of Amhara, to the west of the Takazze and the provinces of the south. The Abyssinians of Tigre and Amhara are of Semitic origin and profess Christianity, being acquainted with the chief truths of the Bible, but all much blended with merely human notions. The latest polemical agitations have been as to the two or three births of Christ,—born of the father before all worlds; made man; and in the baptism at Jordan receiving the holy spirit. As regards the two natures of Christ, they are extreme monophysists. Monogamy is their church law, but concubinage is universal: when the Arabs threw off the Abyssinian yoke, the remnants of the Abyssinians in remote parts of the country were reduced to servile avocations and form the Khadim of Yemen. See India, p. 310. Kirk. Somal. Beer-el-somal. Khadim. Valentia.

ACACIA, a very extensive genus of plants, numbering about three hundred species. Of these, several are well known in the South and East of Asia, the foliage of some being attractive, while others furnish valuable timber, useful gums and products valuable to man: the specific names of a few are doubtful and some of those species described by Roxburgh have been removed to other genera. On the Neilgherries near Wellington, flourishing plantations have been formed of the Australian Eucalyptus and Acacias. They are intended to supply both fuel and building timber to these hills, and are of very large extent. One plantation near Coonoor, of 130 acres, and of about ten years' growth, contains many trees of from 40 to 50 feet high, and 3 feet girth. It would be difficult to find such a noble forest of planted trees of the same age in any part of the world. The seed is sown in nursery beds and well watered till it springs up. When the seedlings are from 6 to 18 inches high, they are taken out, and the roots of each packed in moss, or, in pots formed of one joint of the large Kuttung bamboo. They are then replaced in the nurseries and watered every day till they are from 2 to 3 feet high, when, during the rainy weather, they are planted out in trenches 6 feet apart and 18 inches square, filled with surface earth and any decayed vegetable matter : after planting out, the young trees are left to themselves ; growing close together, they keep each other straight and clear of side branches. During the first two or three years, very rapid progress is not observable, but after that period, having obtained a good hold, their growth is extremely rapid, and at ten years old, they form a noble and profitable plantation, from the necessary thinnings, both for building purposes and for fire-wood. Most of the species now described under the genus Acacia, were formerly, by Linnœus, Roxburgh and other authors classed as Mimasæ, but Voigt names as growing in India the following 39 Acacias, viz. :

Altissima.
Amara.
Arborea.
Arabica.
Buchanania.
Cæsia.
Catechu.
Cavalum.
Diluta.
Dumosa.
Elata.
Ferruginea.
Frondosa.
Fruticosa.
Glauca.
Herbacea.
Horrida.
Intsia.
Kalkora.
Leucophlœa.
Latronum.
Lophautha.
Miamonsis.
Modesta.
Mollis.
Mycrophylla.
Odorotissima.
Pennata.
Rugata.
Semicordata.
Sirissa.
Suma.
Sundra.
Smithiana.
Stipulata.
Tomentosa.
Tortuosa.
Vera.
Wightii.

Several of this genus, still remain without specific names. Of these, three occur in Burmah, the Kuk-ko, the Po-peeah, and the Nway khyo, A. arborea was introduced from Jamaica : A. Wightii is a tree of Malabar and Dindigul. A. Kalkora, a tree of Assam. A. Frondosa, of Patna. A. Glauca, a shrub of S. America, A. Horrida, a tree introduced from S. Africa or Arabia, A. Semicordata is a tree of Malabar, A. Cavalum, a tree of Bengal, A. Procera, Willde, a tree of Coromandel, and the A. planifrons of W. and A. is the umbrella tree of the peninsula of India. There is still considerable confusion amongst the species of this genus, as shown by the many synonyms of different writers. See Gums and Resins ; Charcoal.

ACACIA. Silk tree Acacia. Choukur, HIND. A common low tree in many parts of Rajwarra. The flowers are long, cylindrical, one-half yellow, the other half bright pink and not mutable ; the colored stamina exactly resemble tufts of floss silk : the wood is put to no use. —*Genl. Med. Top. of Ajmere.*

ACACIA. SACRED ACACIA. ?

Rewa, HIND.

A large tree common in Rajwarra, sacred to the Matajee, around whose shrines groves of this tree are commonly found. The wood is hard, dark colored, and durable, but only the decayed trees are used.—*Genl. Med. Top.* See Pilgrim tree.

ACACIA, TRAVELLER'S ACACIA.

Rheonj. HIND.

A very common tree in particular parts of Rajwarra, upon which travellers at certain parts of the roads suspend shreds of their cloths as in other parts of India. To the extremities of the young branches are suspended innumerable masses of exuded sap of large size.—*Genl. Med. Top. p.* 197.

ACACIA ABSTERGENS. Go-go, TAG. in Manilla, the fibrous part of the bark is used by ladies for washing their hair.

ACACIA AFFINIS. See Evergreens.

ACACIA ALBA. WILLD. Syn. of Acacia leucophlæa.

ACACIA AMARA. *Willd.*

Mimosa amara, *Roxb.*

Bel kambi...	... CAN.	Wunjah Maram.	...TAM.
Lallye... ...	...MAHR.	Nalla-regu. ...	...TEL.

This tree grows in Coimbatore, and is common in the more inland jungles of the Bombay presidency, but less so on their coasts : Dr. Gibson says it grows above the ghats of Canara and Sunda, not inland and not north of the Gungawalli river. It is a tolerably large tree in Coimbatore, but of rather low stature. Its flower is very beautiful. In Coimbatore the wood is dark colored and hard. In the Bombay Presidency, the wood is always very crooked, otherwise, when ripe, it is strong and tough and might be applicable to domestic purposes. From its black colour, the natives of Canara and Sunda deem it (wrongly) a species of ebony.—*Roxb. Il.* 548. *Voigt.* 261. *Dr. Wight. Dr. Gibson.*

ACACIA ARABICA : *Willd ; Linn ; W.&A.*

Mimosa Arabica, *Lamarck.*

Amghautan...	... AR.	Babula...	... HIND.
Akakia...	... „	Kurru-vaylam.	MALEAL.
Sumug Arabi.	... „	Mugbilan...	... PERS.
Gur sunder...	... BENG.	Samgh-i arabi.	... „
Babul.	BENG. HIND. DEK. MAHR.	Barbura...	... SANS.
Babla... ...	...BENG.	Andere...	...SINGH.
Nan-lung-kyen.	...BURM.	Kari-velam.	... TAM.
Bab-bul.	... DUK.	Nalla tumma.	... TEL.
Kali-kikar,	DEKH. HIND.	Tumma chettu.	... „
Babul tree.	... ENG.	Barbaramu.	... „
Gum Arabic tree.	„	Its gum is the babul ka Gond...	... HIND.
Indian gum Arabic tree...	... „	The vallam pisin ; karavelam pisin.	TAM.

This yellow flowering and rather ornamental tree is met with in varying abundance throughout Southern India. It is of rapid growth and requires no water, flourishing on dry arid plains and especially in black cotton soil, where other trees are rarely met with. In the western Dekhan of the Bombay Presidency, it is most frequent in the interior, less common on the sea coast and hardly known in its southern jungles. We do not find mention of it as occurring in Burmah, Pegu or Tenasserim, nor do we remember observing it there. In Ganjam and Gumsur, it attains an extreme height of 25 feet with a circumference of 2 feet: in Nagpoor, the maximum length of its timber is 14 feet, with 3½ feet of girth, but 10 feet long and 3 feet in girth is the average, and it sells there at 6 annas per cubic foot. The height from the ground to the intersection of the first branch is about 8 feet. It can never be had of large size, and is generally crooked, but it is a very hard tough wood and is extensively employed for tent pegs, ploughshares, sugar cane rollers, for the spokes, naves, and felloes of wheels; for the knees and ribs of country ships, and generally for all purposes to which a hard bent wood is applicable; it is not attacked by white ants. Although in great demand for ship building, when so applied, it does not last above 16 years. Amongst its other useful products, may be named its gum, bark and seeds, the latter being extensively used in the Dekhan for feeding sheep. The bark is very largely employed in the centre of the Peninsula as a tanning material, and when properly managed, makes a good leather, with a reddish tinge, though in native hands, the leather is often porous, brittle, and ill coloured. Dr. Buchanan mentions that, in Mysore, the bark was employed in the process of distilling rum; but in this he probably mistook another Acacia. The ground bark mixed with the expressed seeds of the Sesamum orientale has been used as food in times of scarcity. A decoction of the bark makes a good substitute for soap and is used in dyeing various shades of brown. It yields an abundance of transparent gum which flows out from incisions or fissures in the bark and hardens in lumps of various sizes and figures. This is used in India as a substitute for the true gum arabic, which is the product of A. vera. In the medicinal practice of the people, the bark is used internally as a tonic and astringent; in decoction as a wash for ulcers, and finely powdered and mixed with gingelly oil externally, in cancerous affections. Dr. Gibson, for years, advocated extensive planting of this useful tree, in the Bombay side of India, and several forests of it at Khangaum, Kasoordee and other places, have been preserved. He tells us that the Acacia Arabica, Babool, is most common in the interior; less so on the coast, and hardly known in the southern jungles. As the vernacular term,' Babool, is generic, and applied in the Mahratta, Guzerati and Hindi to various species, there are he adds, two if not three varieties or species of Babool, Ram Kanta and Eree Babool. The first is the most common species, the second less so, and distinguished from the first by its straight stem, and general appearance, resembling that of a gigantic broom. The wood is quite equal to that of the common Babool. The third species is distinguishable from the first by its more horizontal mode of branching; the smaller branches long and stretched out, the side branches from them going off at right angles nearly. The bark also is much more reticulated, broken, and corky than that of the other, and as its wood is very inferior, as regards its use for agricultural implements, house, material, &c. the distinction between the two, should always be kept in view as practically important. The pod of this third species, also, is much broader margined; very partially moniliform, and can be at once distinguished from that of the first two species which is so contracted between each seed as to be nearly severed. The pods and tender branches of all the three species form important articles of food for sheep, goats and cattle, from February to the beginning of the rains. The flesh of lambs fed on the pods has a flavour equal to that of the best Europe lamb. *Captain Sankey. Drs. Wight, Cleghorn, Gibson. Mr. Rohde. Reports of the Juries of the Madras Exhibition. Dr. Riddell. Useful Plants. Cyclopædia of India and Supplements. Captain Macdonald. Roxb. II.* 548. *Timber Trees. Voigt.* 262.

ACACIA CÆSIA. *W. & A.*

Mimosa cæsia, *Linn.*
Acacia alliacea, *Buch.*.
„ Arrar, „
„ intsioïdes, *D. C.*

Tella Korinda. TEL. | Konda Korinda. TEL.

The climbing shrub grows in Coromandel, Olipur, Monghyr and Saharunpur. *Voigt.* 263.

ACACIA CATECHU. *Willd.*

A. Polyacantha, *Willd.*
A. Wallichiana, *D. C.*
Mimosa catechu, *Linn.*
„ Catechnoides. *Wall.*

Khair. ...	...BENG.	Khaiar, ...	... HIND.
Khaira-ghach,	...BENG.	Kheir, ...	...MAHR.
Sha, ...	...BURM,	Khehiree,...	...SINGH.
Sha-bin.	... „	Khadiramoo,	... SANS.
Catechu tree	... ENG.	Khadira,	... „
Medicinal Acacia.	„	Wodalior ...	... TAM.
Khair. ...	...HIND.	Wothalay,..	... „
Kadira, ...	„	Podala Manu,	... TEL.
Khyar, ...	... „	Khadiramoo.	... „

This tree grows on the Malabar and Coromandel coasts, in the Dekhan, the Northern Circars, is one of the most common trees of the Bombay coast and its ghaut jungles, grows at Serampore, Monghyr, Rajmahal, Delhi, Nepaul, on the Mooring Mountains and Assam; it is common all over the plains and scattered over the hills of British Burmah, in great quantities in the forests of the Prome and Tharawaddy districts. Immense numbers of these trees are annually cut down and made use of for the extraction of catechu. There are several varieties differing in shade, specific weight, and yield of catechu. A cubic foot weighs from lbs. 56 to lbs. 70. In a full grown tree on good soil the average length of the truuk to the first branch is 20 feet and average girth measured at 6 feet from the ground is 6 feet. The wood possesses great strength and is considered more durable than teak. It resists the attacks of insects, and is employed for posts and uprights of houses, for spear and sword handles, bows, &c. The catechu, formerly known as Terra Japonica, is extracted from the wood. The Burmese variety called "sha" is common all over the plains and scattered over the hills of British Burmah.—*Roxb. II.* 562. *Voigt*, 259, 260 ;—*Dr. McCelland. Major Drury. Drs. Gibson and Brandis.* See Catechu.

ACACIA CINEREA. *Spr. Willde.*

Dichrostachys cinerea. *W. & A.*

Ash coloured mimosa,	ENG.	Werdil, ...	...HIND.
Vellatooroo,	...TEL.	Vedatil, ...	... TAM.
Nela Jami,	..TEL.	Chinna Jami,	... TEL.

This tree is said to grow in the Circars.

ACACIA DALEA. *Desv.* Syn. of Dichrostachys cinerea. *W. & A.*

ACACIA DEALBATA, a handsome tree, from fifteen to thirty feet high, abundant in Port Philip and Twofold Bay, forming luxuriant groves on the banks of streams, between the parallels of latitude 34 and 30 degrees. Its bark contains a greater per centage of tannin than any other, and pays to ship to England.—*Simmonds.* See Evergreens.

ACACIA EDULA. IRVINE. ESCULENT ACACIA.

Khejra... ...HIND.

A very common large tree in Rajwarra ; the long slender pods are very sweet and pleasant food, cooked: for this purpose, they are universally gathered by the poor wherever procurable and eaten both fresh and dried. The wood is very hard, but the tree is not cut down. *Med. Topog.*

ACACIA ELATA. *Linn.*

Mimosa elata, *Roxb* ; *Wall.*

Seet...	...BURM.	Chukul Mora.	...CAN.
Thaeet tha.	... „	Tella Sopara.	...TEL.
„ Seet.	... „		

This large, tall, stately and excellent timber tree is pretty common in Canara and Sundah, both above and below the ghauts. It occurs in the Godavery forests, in Dehrah Doon, Assam, on the banks of the Irawaddy and Ataran, and in Tavoy : plentiful in the Pegu, Tounghoo and Prome districts, and very abundant all along the sea shore from Amherst to Mergui. Its maximum length is 18 feet. When seasoned, it floats in water. Its timber is straight, lengthy and of large girth. The wood is red and is hard and strong and very durable. It is much valued and useful for house building. It is used for posts for buildings. It is adapted for cabinet making and of sufficient girth to be advantageously employed in Government buildings, and for packing cases.—*Voigt, p.* 261, *Roxb.* ii. 546. *Captain Beddome. Drs. Gibson and McCelland. Captain Dance. Madras Artillery.*

ACACIA FARNESIANA. *Willd.*

Acacia Indica. *Desv.*
Mimosa Farnesiana *Roxb. Linn.*
Vachellia Farnesiana. *W. & A.*
Mimosa Indica, *Poir.*

Guya Babula,	...BENG.	Baver, ...	...SINDH.
Iri babool,	...MAHR.	Bublee....	... „
Urimeda,	.. SANS.	Vadayvulli Maram,	TAM.
Vit Khira,	.. SANS.	Kasturi, Petuma chettu	TEL.
		Pictumi....	... „

Roxburgh says it is a native of every part of India, in Sind, Silhet Assam, Bengal and both peninsulas. It is a large shrub or small tree armed with thorns, but in waste places in the Western Dekhan, where it occurs also in garden hedges, it is only a scrubby shrub. Dr. Gibson says its wood is only applicable for tent pegs and firewood, but Voigt mentions that the wood is hard, tough, and used for ship knees, and tent pegs. A delicious perfume is distilled from the flowers, and the tree exudes a considerable quantity of useful gum.—*Dr. Gibson. Major Drury. Roxburgh* ii. 557. *Timber Trees.*

ACACIA FERRUGINEA, *D. C., W. & A.*

Mimosa Ferruginea, *Roxb.* ii. 561.

Rusty Acacia,	...ENG.	Vuni, ...	...TEL.
Vel Velam,	...TAM.	Anasundra,	... „
Woani	...TEL.	Anachandra,	... „

This tree grows in the Madras Presidency, on the Coromandel Coast and NorthernCircars, and is found at Courtallum, in the Bombay Presidency. It attains a height of from 20 to 25 feet. The bark is very astringent and forms an ingredient in the manufacture of a kind of arrack. —*Voigt.* 260. *Drury. Roxb.* ii 561. *Ainslie.*

ACACIA GUM. See Resins.

ACACIA INDICA, *Desvallines.*

Vachellia Farnesiana, *W. & A.*
Mimosa „ *Linn. Roxb.*
„ sepiaria, *Roxb.*
„ Indica, *Poir.*

ACACIA JUREMA. See Jurema Bark.

ACACIA LATRONUM, *Willd. ; D. C. ; W. & A.*

Mimosa latronum, *Koen.*
„ coringera, *Linn.*
Buffalo thorn... ...ENG.

Common in the barren tracts of the Dekhan and found on the Madras side of India.—*Voigt*, 260.

ACACIA LEUCOPHLÆA. *Willd.*

Acacia alba, *Willd.*
Mimosa leucophlœa, *Roxb.*
„ alba, *Roxb.*

Panicled Acacia ...	ENG.	Vel Velam	...TAM.
ikar	...HIND.	Vellai Tumma	... „
ed Kikar	... „	Tella Tumma	...TEL.
ewar	...MAHR.	Its gum, vel velam pisiu	...TAM.

It grows in the Dekhan, in the woods and hills of peninsular India, in Coimbatore, in some parts of the Southern Mahratta Country, and in the Sholapore districts between the Bheema and the Kistna rivers. Its specific name and its Hindi, Tamul and Telugu names are given from the whitish or pale yellow colour of its bark, which, in Southern India, is one of the ingredients used in distilling arrack. In Coimbatore the tree attains a medium size with a round head, but in the Dekhan it is never of a size fit for anything beyond posts to small houses. The wood it furnishes, however, is strong, good and dark coloured, though generally small. It is easily distinguished by its panicled globular inflorescence and stipulary thorns. A tough and strong fibre, in use for large fishing nets and coarse kinds of cordage, is prepared from the bark by maceration, after four or five days beating. Under the Hindi name of Rohnee, this is described as a tree of Jubbulpoor, abundant in the Deinwah valley and Hoosingabad, yielding an excellent and tough wood, but which does not work smoothly.—*Cal. Cat. Ex.* 1862. *Dr. Wight. Dr. Cleghorn. Major Drury. Mr. Rohde. Voigt*, 262. *Roxb.* ii. 558.

ACACIA LOMATOCARPA, *D. C.* Syn. of Acacia odoratissima.

ACACIA MICROPHYLLA. *Gr.*

Mimosa microphylla, *Roxb.*

Tetulia of Silhet. A tree growing in Silhet to about twelve feet in height and the people distil from its bark an intoxicating liquor, which they drink as the English drink beer.—*Roxb.* ii. *p.* 549, 550.

ACACIA ODORATISSIMA, *Roxb. Willd*

Acacia leblek, *W.*
Acacia lomatocarpa, *D. C.*
Mimosa marginata, *Linn.*
Mimosa odoratissima, *Linn.*

Fragrant Acacia	ENG.	Vel Venge...	...TAM.
Chechua	...GOND.	Karroo Vaga ?	... „
Sankæur	... „	Karoo Vangam	... „
Sirsa	...HIND.	Sela wunjah	... „
Ram Sarras	...DEKH.	Sela Maram	... „
Sarris. Mahr	DEKH.	Shinduga...	... TEL.
Karintha Karra.	MAL.	Telsu ...	... „
Vela Venge Maram.	TAM.	Dirasana ...	... „

This large handsome tree grows over all the peninsula of India, in any soil, on the coast or in the interior, and is found in Bengal, Assam, the eastern provinces of Burmah, Pegu and Tenasserim. In the Madras Presidency, about Coimbatore, it is of rapid growth and in considerable abundance, attaining the height of 30 to 40 feet. It often attains a good size in the Bombay presidency, but in Nagpoor, it is only in gardens that its dimensions are great, the timber it yields in other localities being as a general rule, of small scantling. It is, even there, however, obtainable in beams from 15 to 18 feet long and three feet in girth, at 5 annas per cubic feet. In Coimbatore, beams one foot square are procurable. The heart wood is dark coloured, turning almost black with age; is strong and heavy and takes a good polish; the grain being ornamental, though rather open. In Nagpoor it is described as being distinguishable from the timber of the Pentaptera tomentosa, only by its much straighter grain and greater lightness. It has an outer ring of white wood of from 2 to 3 inches, in Nagpoor, but which Dr. Gibson says, is, in the Western Dekhan, always 3-4ths of the whole. This part alone is assailable by white ants; but by being creosoted, it could probably be made a useful railway timber. All accounts describe its heart wood as strong, hard and heavy; in Nagpoor of sufficient size to form rafters, and excellently suited for naves and felloes of wheels, but there is an uncertainty as to its powers to bear moisture. A beam an inch and half square sustained a weight of 570 lbs. The oil manufacturers of Nagpoor use it for their mills and it is there generally employed to make carts. The wood is said to deserve being better known for the general purposes of carpentry.—*Voigt.* 261, *Captain Beddome. Captain Sankey Dr. Mason. Dr. Wight, and Dr. Cleghorn. Major Drury, Dr. Gibson, Dr. McClelland, quoted in Cyclopædia of India*, 1st and 2nd Supplements. *Rohde*, *Roxb.* ii. 546. *Sankey. Madras Exhibition Juries Report.*

ACACIA RAMKANTA. Under this name Drs. Gibson and Riddell describe an ornamental species of Acacia or a variety of A. Arabica, as common in the Dekhan, though less abundant than A. Arabica from which it is distinguishable by its straight, tall, erect stem and general cypress-like appearance, or resembling that of a gigantic broom, and the colour of its legumes. Its wood is quite equal to that of the Acacia Arabica, being hard and used for cart-wheels, ploughs, &c., but the natives attach some superstitious notions to the use of the tree.

ACACIA ROBUSTA, the large Australian or Cape Acacia, introduced from the Cape, is now growing freely on the Neilgherry Hills. At the Madras Exhibition of 1857, Mr. McIvor exhibited specimens of bast, from this tree, strong, very tough and durable, also pliable when wet ted, and constantly made use of, for all the purposes to which Russian bast is put in gardens in Europe. This bast can be procured cheaply and in large quantities, as the trees when cut down throw up numerous young shoots, to the height of from six to twelve feet in one year. The bark of the tree is also a powerful tanning material. *Mr. McIvor. Madras Exhibition of* 1857.

ACACIA RUGATA. *Buch.*

Acacia concinna, *D. C.*
Mimosa concinna, *Roxb. Willd.*
Mimosa rugata, *Lam.*
„ saponaria, *Roxb.*
„ abstergens, *Spr.*

Rita... ...	...BENG.	Chi-kaia ...	...MAHR.
Ban-rita...	... „	Sia-kai ...	... TAM.
Ken Bwon...	...BURM.	Chikai ...	... TEL.
Soap Acacia...	... ENG.	Sikaya ...	... „
Rita... ...	...HIND.		

Grows in the peninsula of India, Bengal, Nepal, Sylhet, Assam, Moulmein on the Attaran and Dr. Gibson says it grows in the Ghaut jungles generally of Canara and Sunda. The legumes are used for washing the hair, and by Hindus for marking the forehead. The leaves are acid and used in cookery instead of tamarind and with turmeric they give a beautiful green. Pods and bark are exported from Canara, the former as a washing material, the latter for dyeing and tanning fishing nets.—*Voigt.* 263 *Roxb.* ii, 565. *Dr. Gibson. Mason.* See A. abstergens, A. concinna. Soap Acacia.

ACACIA. A. gummifera. Mimosa gummifera. The *οπο χαλπασον* of the Greeks and *Talleh* of the Arabs of the desert. A native of Africa near Mogadore, also of the Island of Bourbon ; the ~~trunk is very~~ large and lofty, and affords the gum opocalpasum, the Abyssinian myrrh of Bruce. Dr. O'Shaughnessy states that it also produces the Bussorah gum of commerce, which may be substituted in medicine for Gum Tragacanth.—*O'Shaughnessy, page* 301.

ACACIA SCANDENS. *Willd.*

Entada pursætha, *D. C.*

Climbing Mimosa ...	ENG.	Gila, ...	HIND.

A large creeper running over trees in the Kotah jungles, where the stems of this plant often in size and form resemble ship cables.—*Genl. Med. Top. p.* 197.

ACACIA SPECIOSA, *Willd*; *W. & A.*

Acacia siriss-a, *Buck.*
Mimosa flexuosa, *Rottl.*
„ siriss-a, *Roxb.*
„ speciosa, *Jacq.*

Serisha ...	... BENG.	Vel Vangai Maram	TAM.
Seet ...	... BURM.	Dirasana ...	.. TEL.
Siriss ...	... HIND.	Dirasana Chettu ...	TEL.
Sirissa tree	.. ENG.	Sinduva Chettu ...	TEL.
Katuvage...	... TAM.	Sirissee ...	... URIA.

This, the Mimosa sirrissa of Roxburgh, in the Madras Exhibition Juries' Reports, is stated to be the Acacia sirrissa which is extensively planted along the banks of the Ganges canal. Like the seet of the Burmese, described by Dr. Mason and Dr. McClelland, it is a tree of large size and rapid growth, but the seed is described as giving a red wood or of a dark colour, and that of the speciosa as white or light coloured. This large tree is plentiful in Pegu, particularly in the Tounghoo district; it is found on the Irrawaddy and may exist in the Tenasserim Provinces. In Ganjam and Gumsur, it is very plentiful, and attains an extreme height of 30 feet and circumference 4½ feet, the height from the ground to the intersection of the first branch being 22 feet. It is used for sugar crushers, pestles, mortars, and ploughshares. It is common in the forests of the Bombay presidency, grows in Travancore, on the Coromandel Coast, and is a common tree in Coimbatore, where it is frequently seen growing by the road sides on account of the shade that its large head affords. The timber is easily procured in Madras, and is said to be white or light coloured, durable and very hard and strong, for Dr. White found a 1½ inch bar sustain 560 lbs. Dr. Gibson seems to refer A. speciosa to A. odoratissima, and to think that their Sirris and Ran Sirris are not different. Others describe it as a large, red or dark coloured timber, very hard, adapted to cabinet making and ship building, and Voigt who identifies Roxburgh's mimosa sirissa with this tree also says that the timber is large, dark coloured, very hard, and close enough grained for furniture, and that large masses of very pure gum are often found on it. *Dr. Mason. Captain Macdonald. Dr. McClelland. Dr. Cleghorn in M. E. J. R. Dr. Wight, in M. E. P.; and Dr. Gibson in Bomb. Geo. Soc. Journal. Voigt.* 261. *Roxb.* ii. 544.

ACACIA SIRISSA.

Tseek-tha. BURM.

A tree of Moulmein was sent to the London Exhibition of 1862, under these names. Wood reddish colored and used for furniture.—*Cal. Cat. Ex.* 1862.

ACACIA STIPULATA, *D. C.* (Albizzia.)

Mimosa stipulata, *Roxb.*
Mimosa stipulacea, *Roxb.*

Amulki. ...	...BENG.	Seet.	BURM.

This unarmed Acacia, with flowers of a pink colour, is one of the largest trees of the genus, and is found in Dera Dhoon, in the mountains north of Bengal, in Travancore, Courtallum, in most parts of the peninsula, in Assam, in the forests from Rangoon to Toungoo, and on the banks of the Ataran River. Dr. Gibson does not mention its existence in the Bombay forests, nor is it known to be found in Tenasserim. It yields a large heavy timber, wood of a red colour, close grained and strong, and adapted to cabinet-making, furniture and other purposes.—*Voigt. Dr. McClelland. Major Drury.*

ACACIA SUMA.

Mimosa suma. *Roxb.*

Shal Kanta	...Beng.	Tella Chandra ...	...Tel.

Grows in Bengal.—Uses not known.

ACACIA SUNDRA, *D. C.*

Acacia chundra, *Willd.*
Mimosa sundra, *Roxb.*

Lall Kheir	Hind. Mahr.	Nalla Chandra	... Tel.
Karangally Maram.	Tam.	Sandra ...	... „
Chandra ..	...Tel.		

This tree grows in the peninsula and the Sunderbuns, but varies in size, in different localities. Dr. Gibson mentions that it is common in the jungles of Bombay, there always scrubby, small and crooked; and though rather plentiful in the forests under the ghats, he had not seen it of a size capable of affording planks. It is somewhat abundant in the jungles, and a rather large sized tree. At Guntoor, Mr. Rohde mentions he had obtained planks one foot broad; that posts five feet long are procurable at 12 Rupees per 100, well suited for fencing, and that the natives regard it as the most durable wood for posts in house building, though from its non elastic nature it is unfavorable to the holding of nails driven into it. The wood is, however, not obtainable in the market generally in planks of any size. The wood is of a dark colour, very hard, heavy and very strong, a one-inch bar sustaining a weight of 500 lbs. It is also used for rice pestles. A resin similar to that which excludes from the A. catechu, is procured from this tree. The two trees are nearly alike, the uncertainty of the prickles absent or present, being a distinguishing characteristic of this one.—*Mr. Rohde. Dr. Wight. Voigt* 260. *Cleghorn's Reports. Useful Plants.*

ACACIA TOMENTOSA. *Willd.*

Mimosa tomentosa, *Roxb.*
Mimosa Kleinii, *Poir.*

Salsein Babula.	...Beng.	Jungle Nail tree.	...Eng.
Elephant Thorn. ...	Eng.	Ani Mulla.	...Tam.

Grows on the Madras side of India, common near Sholapore, in the Khandeish jungles and the Bombay Dekhan, and is found in Bengal.—*Voigt* 262.

ACACIA VERA. *Bauh.*

Acacia nilotica.
Mimosa nilotica. *Linn.*

Sumr	Arab.	Gum Arabic tree	...Eng.

The Acacia vera is a tree of the African desert, and according to Wellsted, of Arabia, its leaves yield the camel the sole forage it can meet in those arid regions. Two products are obtained from it, one natural, the other artificial, namely, the dried Acacia juice and gum arabic. The Acacia juice (Akakia of Dioscorides and eastern writers) is a solid, dark colored shining substance, soluble in water which it colours red. It is obtained by pounding the unripe fruit, and the juice is thickened before the sun, and then placed in bladders in which it gradually dries. The little bladders of Akakia found in Europe contain about 5 or 6 ounces each; it is sold in the bazars of Bengal in thin, very black cakes about the size of a rupee. It was much lauded by Hippocrates and Dioscorides. Wellsted found the Sumr trees of great size, and the gum exuding in considerable quantities, but very little of it was collected by the Bedowins, who complained that the price it brings in Maskat, does not repay them for their trouble. The great and most important article of commerce as an export from the Soudan, is the gum arabic. It is produced by several species of Mimosa, the finest quality being a product of Kordofan; the other natural productions exported are senna, hides, and ivory.—*Wellsted, Vol.* 1. *p.* 73 *and* 106. *Baker's Albert Nyanza. O'Shaughnessy, pp.* 299,300. *Mendis.*

ACAFRAO. Port. Saffron.

ACAJU. It. Cashew nut.

ACALI. See Akhali.

ACALYPHA BETULINA. *Retz. Spreng.*

Acalypha spiciflorus. *Lamb.*

Chunni maram	...Tam.	Chinni Aku ...	... Tel.

Wood to be obtained about 18 inches in diameter; hard and heavy; not of much value to carpenters. Leaves attenuant and alterative, and an agreeable stomachic in dyspepsia and other ailments.—*Wight. Hogg.*

ACALYPHA. INDICA. *Linn. Roxb. Wight.*

Acalypha cupameni, *Rheede.* ? ?

Mukto-jari	...Beng.	Kupameni ? ...	...Tam.
Shwet busunda ...	„	Harita manjari	... Tel.
Morkantee ...	„	Kuppanti chettu ...	„
Indian Acalypha...	Eng.	Puppanti, Mirutkunda	„
Kuppi ...	...Duk.	Murupindi	„
Kooppie ...	...Hind.		

A small annual, common everywhere in the Peninsula and Bengal. This plant is easily distinguished by the singular cup-shaped involucre which surrounds the flowers. In decoction is cathartic, the leaves with garlic are anthelmentic; mixed with common salt, the leaves are applied externally in scabies, and the juice rubbed up with oil externally in rheumatism.—*Hogg. Useful Plants. Honigberger. O'Shaughnessy, page* 562. *Voigt.* 160. Wight also figures A. mappa.

ACANTHACEÆ In Ceylon, "*nelloo*" is applied to the species of this natural family generally.—*Thw. Enum. pl. Zeyl. p.* 223.—See Acanthus.

ACANTHOPTERYGII. See Cottus; Coryphæna; Dactylopterus; Diacope; Chætodon; Anabas; Sword fish; Pilot fish; Mullet.

ACANTHURIS VITTATUS. *Bennet.* Has a sharp round spine on the side of the body, near the tail,

ACANTHUS ILICIFOLIUS. *Linn.*

Dilivaria ilicifolia. *Juss.*

Holly leaved Acanthus. Every muddy bank in the Tenasserim Provinces is relieved by crowds of this handsome, blue flowered plant, with leaves like a holly. The Burmans say, its roots are a cure for the bites of poisonous snakes.—*Mason.*

ACARUS FARINÆA, or meal mite, is never present in flour, unless when damaged, and in a state unfit for consumption. The domestic mite, A. domesticus, which does so much injury to stuffed insects and birds, can be somewhat guarded against with camphor and a solution of corrosive sublimate. The sugar mite, A saccharinum, so common in cane sugar, is unknown in the palm sugars of India.—*Hassal.*

ACASANAVI. Sansc. In Brahminism, an ethereal voice, heard from the sky; an emanation of Brahm. When the sound proceeds from a meteor or a flame, it is called Agnipuri, or formed of fire: but an Avatara is a descent of the deity in the shape of a mortal; and an Avantara, a word rarely used, is a similar incarnation of an inferior kind, intended to answer some purpose of less moment. Acasanavi, therefore, is a manifestation of a deity, in which he is heard but not seen.

ACASFA. A name for the Sky, or Firmament.

ACATSJA VALLI. Tam. ஆகாசவள்ளி. Cassyta filiformis.

ACAWERYA. Cyng. Ophioxylon serpentinum.

ACCAD. See Kesra.

ACCIAJO. It. Steel.

ACCIUGHE. It. Anchovy.

ACCOUNTANT GENERAL. The designation in India given to civil officers of the Government, who keep the public accounts.

ACEITE DE ACEITUNAS. Sp. Olive Oil.

ACEITE DE PALMA. Sp. Palm Oil.

ACEITUNAS. Sp. Olives.

ACER. Dr. Royle mentions, that immediately we commence ascending the Himalayas, either in Nepaul or Sirmoor, we meet with species of the Acer or Maple family, seven new species have been discovered in these mountains, of which Acer oblongum, is that which descends to the lowest level, being found in Nepaul and further north in the Dehra Doon, between 2,000 and 3,000 feet of elevation. Acer cultratum is found at 6,500 feet on the Mussooree range, and at similar heights in Sirmoor and Gurhwal; while A. caudatum (Wall. Pl. As. Rar. t. 132, and A. acuminatum? Don) sterculiaceum and villosum, are only seen with pines and birches on the loftiest mountains, which are for many months covered with snow. A. sterculiaceum (Wall. Pl. As. Rar. t. 105) is closely allied to A. vellosum, which differs but little from a pseudo-platanus, or sycamore; and as this affords timber which, from being light and tough, is much used by turners, and for making saddle trees, so it is probable that both the Himalayan species would answer equally well for the same purposes. The wood of A. cultratum is white, light and fine-grained, and might be turned to the same uses as that of the maple, which is esteemed by turners, and also occasionally for making gun-stocks. A. caudatum is also found in Kunawar, and A. sterculiaceum, extends to Cashmere. Though this family contains one other genus, Negundo, which has been separated from Acer, a new one, Dobinea, has been discovered in Nepaul by Dr. Hamilton, and is distinguished, according to Mr. Don, by its monœcious flowers, companulate 4-toothed calyx, with the eight stamens united into a column round the sterile style. It is only a shrub of six feet in height, but judging from the dried specimens, it must, when in flower, have a very light and elegant appearance.

Acer (Negundo) fraxinifolium, is a native of North America, from which sugar is said to be made. Mr. Hodgson, in his Nagasaki, p 342-3, gives the following as the species of the genus Acer, growing in Japan, viz:

A. carpinifolium	*S. & Z.*
A. cratægifolium	„
A. distylum,	„
A. dissectum,	*Thunb.*
A. Japonicum,	„
A. palmatum,	„
A. micranthum.	*S. & Z.*
A. pictum,	*Thunb.*
A. polymorphum,	„
A. rufinervo,	*S. & Z.*
A. sessilifolium,	„

Besides two species undescribed. *Hodgson's Nagasaki:—Royle's Ill., Him. Bot.*

ACER DOBINEA, the Maple of Norfolk Island, is a very handsome tree, and its wood is used for cabinet work.—*Keppel's Ind. Arch. Vol. II, p.* 282.

ACER LEVIGATUM. *Wall.* A tree of the higher Nepaul mountains.—*Voigt. p.* 92.

ACER OBLONGUM. *Wall.* A Nepaul tree with very small flowers, in May.—*Voigt, p.* 90.

ACETIC ACID, Eng.

Khall ...	.. Ar.	Acidum Aceticum	Lat.
Poun-ya	Burm.	Chuka	...Malay.
Pyroligneous acid	Eng.	Sirka	... Pers.
Vinegar ...	„	Kadi	... Tam.
Sirka, also Khall	Hind.	Pul'su	... Tel.

The ordinary vinegar of the Indian bazars is prepared from the Dolichos uniflorus. Dr. O'Shaughnessy discovered that much pyroligneous acid passes over along with other gases, in preparing the charcoal for the Echapore powder works, and he recommends for India the practice followed in Germany, where a strong acetic acid, is obtained cheaply and rapidly by causing a mixture of one part of spirit, four water, and about 1000th part of honey or yeast to filter into a cask containing wood-shavings, and provided with holes to secure a free circulation of air. A very large surface being thus exposed, the alcohol is rapidly converted into acetic acid. The fluid drops from the cask into the receiver and should be repassed over the shavings four times. The action is most effective when the temperature ranges from 75° to 100°. In India, teak shavings well boiled in water and subsequently steeped in good vinegar should be employed. The casks should be provided with a perforated tray at top to receive the mixture, the perforations being about the size of a quill, and furnished with cotton wicks to moderate the flow of the liquid. The tray should also have four air-holes an inch in diameter, with glass tubes to permit of the circulation of air.—*Beng. Phar. p.* 233.

ACH. HIND. Morinda citrifolia, *Linn.* See Ach.

ACHAAT. DUT. Cornelian.

ACHA or ATTI MARAM. TAM. Hardwickia binata; any ebony.

ACHAEMENIAN. See Westergaard.

ACHAKSHU. HIND.? Spectacles.

ACHAK-ZAI. PUSHT. اچکزي An Afghan tribe. See Afghan: Kakur; Durani.

ACHA MARAM. TAM. also Atti Maram, TAM. ஆச்சமரம். Diospyros ebenaster; ebony tree.

ACHAR. HIND. اچار Pickles.

ACHAR. A Native race in Nepaul, from whom the Mewars select their priests.

ACHAR. MALAY. Antiaris.

ACHARYA, the person who taught the Vedas used to be called Acharya; and at present the Brahman, who reads a portion of them at the time of investiture with the poita, is called by this name; as well as the person who reads the formularies at a sacrifice.—*Ward's Hindoos, Vol. II. p.* 16-17. *See Gayatri. India, p.* 340. *Priests.*

ACHAT. GER. Cornelian.

ACHATES. LAT. Cornelian.

ACHAUS. See Greeks of Asia.

ACHE OR ACHIN. See Acheen: India.

ACHEEN. (Sumatra) Athi of the Malays, Atsjin of the Dutch, Lat. 5° 22′ N. Long. 95° 46′ E. The capital of a kingdom of the same name, situated near the N. W. extreme of Sumatra, and formerly one of the principal trading ports of the Indian Archipelago, its position, near the entrance of the Straits of Malacca, enabling it to command the navigation of what was then the only channel of communication between the Islands of the Indian Archipelago and the countries of the West. Every vessel entering the Straits was then obliged to call at Acheen to obtain a pass, but the arrival of Europeans in these seas who were by no means inclined to acknowledge the authority of a sovereign who was looked upon as a barbarian, set at defiance the assumed authority of the kings of Acheen, and it has gradually decreased in importance until the present time. This monarchy arose from the usurpation of Sultan Saleh-ood-din in A. D. 1521, previous to which time, Acheen had been a province of Pedir and governed by a viceroy from that kingdom. The kingdom extended, in former times, from the north-west promontory of the island of Sumatra (called Acheen Head, a well-known and bold landfall for ships) to beyond Batu Bara river, on the north side of the island. But the territory in modern times, on the north coast, may be said to commence from Diamond Point, as it has ceased to exercise authority over Langhat, Delli, &c. The Acheenese differ much in their persons from the other Sumatrans, being in general rather shorter and of a darker complexion. They are by no means, in their present state, a genuine people, but are supposed to be a mixture of Battas and Malays, with Chuliahs, as they term the natives of the west of India. The town of Acheen is situated on the banks of a river, which, after traversing a broad plain bounded on each side by ranges of hills, forms a delta and falls into the sea by several mouths. The roads are tolerably secure, especially from April to November, when the south-west monsoon prevails and blows usually off the land. During the remainder of the year, north-west gales are sometimes experienced, but the islands in the offing afford considerable shelter, and a ship well found in ground tackle, is not likely to incur any danger of being driven on shore. The usual anchorage is in from 9 to 15 fathoms, with the principal mouth of the river from S. to S. E., and about 2½ or 3 miles off shore. They are an active and industrious people, and show much mechanical ingenuity, but are not scrupulous with regard to their commercial transactions. They are strict mahomedans, and great numbers resort in the Arab vessels to Mecca, with the view of becoming Hajis or pilgrims, which entitles them to high respect among their compatriots on their return. The Arabs, from their supposed sanctity, had formerly great influence among the Acheenese, but this has subsided of late years, owing to the turmoils which their selfish chicanery produced in the State. The most influential individuals now are the "Padri," a species of religious fanatics, chiefly Malays of the Menangkabao states of the interior, who have been for many years past occupied in opposing the encroachments of the Dutch in the interior of Sumatra, but are now chiefly congregated in the kingdom of Acheen, as the last hope of their race. Acheen was not only one of the principal trading ports of the Archipelago, but also one of the most powerful kingdoms, on the first arrival of Europeans, and its naval expeditions continued to be a source of great annoyance and alarm to the Portuguese as long as they continued in power. Its decline, however, had already commenced before the English and Dutch first visited the Indian seas towards the close of the 16th century, chiefly owing to the efforts of the Portuguese to concentrate the trade of the Archipelago at Malacca. Acheen has since continued to decline until its capital has become a port of minor importance even within its own territories. The nominal boundaries of the kingdom still continue to be much the same as formerly, namely, Baroos on the west coast, and Batu Bara on the east coast, but the encroachments of the Dutch on the one hand, and the spirit of independence displayed by the petty Rajahs on the other, have reduced the actual authority of the Acheenese kings to limits which scarcely extend beyond the immediate neighbourhood of the capital. The natural productions of Acheen and its neighbourhood, include gold dust, which is chiefly produced by washing the sands of the rivers; camphor, which goes by the name of "Baroos camphor," and is highly prized in China; sapan-wood, bees'-wax, dammer and rattans. Cattle are abundant, and also small horses of an excellent breed, (the best, indeed, in the Archipelago with the exception of those of Bimah in Sumbawa) which are exported in considerable numbers to the settlements in the Straits of Malacca, especially Penang, where some very favourable specimens of the breed are to be met with. The better kind have fine crests, and good strong shoulders, in which latter particular, as well as in height of wither, they differ very much from the horses of Java and the islands to the eastward, which are generally deficient in these points. Sheep are almost unknown, the nature of the grasses being apparently unfitted for them. The coasts abound in fish, which the Acheenese are very expert in taking. Rice, pepper, betel-nut are the chief agricultural products. All the principal fruits of the Archipelago, mangostein, durian, mango, pine, and lansat; orange, lime, and many smaller fruits are produced, and of a quality rarely equalled and never excelled in the east. The great beauty of the country in the neighbourhood of Acheen, the green hills backed by the lofty Golden Mountain, and the sea studded with islands, must have made a very favourable impression upon the early navigators, to whom Acheen was generally the first spot that presented itself; and their expectations concerning the richness of the Archipelago must doubtless have been extravagant, when they found so fertile and productive a country lying at its very threshold. The Acheenese manufacture cotton cloths of very durable texture, and also small quantities of silk taffetas, which are handsome, but so excessively dear, that they can only be purchased by the wealthier people, and are seldom exported except as curiosities or as presents. The material of the cotton cloths is of home growth, but the raw silk is imported from the continent of India. The Acheenese are also expert workers in gold, and were formerly skilful in casting small brass cannon or "lelahs," but the manufacture of these articles is now confined almost exclusively to Palembang, on the east coast of Sumatra, where it was introduced by settlers from Java. Acheen port is rarely visited by European vessels for purposes of trade, although it is often resorted to by ships bound to Calcutta or Penang which have become short of water or provisions, from having met with baffling winds in the neighbouring seas, which are very likely to occur at certain seasons, especially towards the close of the year.—*Journ. Ind. Archip. Anderson's Acheen.* See Monsoon; Pulo Rondo; Sumatra; Malacca Fort; Tanjong Boto.

ACHENIYA PATA. Beng. Pæderia ternata.

ACHERONTIA SATANAS. The Deaths'-Head Moth of Ceylon; a richly colored nocturnal moth, which utters a sharp and stridulous cry when seized. Tennant.

ACHIT. See Sri Sampradaya.

ACHHAR. Hind. Fruit of Buchanania latifolia. See Chaurapuppoo.

ACHHAR TILAK. Sans. The ceremony of putting a few grains of rice on the forehead of an image when addressed, or on that of a Brahman when invited to an entertainment.

ACHIBUL. A large spring in Kashmir; it is near the village of Achi-gam, probably, like Sondi Breri, a spring from the Berengi river. It possessed a colony of dancing girls, in former days.

ACHIMENES. Very ornamental flowering plants of various colours flowering in the rains, of easy culture; the scaly tuberous roots, by which they are propagated, must be carefully preserved during the dry weather, by occasionally moistening the earth in which they are kept, and after the commencement of the rains, the imbricated buds, which they produce under ground, may be divided and planted out.—*Riddell.*

ACHIN. See Acheen, also India.

ACHINESE. See Acheen, also India.

ACHI-OTTI ROCOU. Sp. Arnatto: Annotto.

ACHI-URU. Tam. Printing-house.

ACHOODA. Sans Solanum trilobatum.

ACHOTE. See Dyes.

ACHRAS BALATA. Aubl. Mimusops kauki. *Linn.*

ACHRAS DISSECTA. Forsk. Mimusops kauki. *Linn.*

ACHRAS SAPOTA. *Willd.* Diospyros sapota.

Bulli or Bully tree.	Eng.	Koweet ? of	...Bombay.
Common Sapota. ...	„	Ratami. ...	.. Singh.
Sapoddilla Plum ...	„	Siuni Elupei maram.	Tam.
Thwoot-ta-bat.	...Burm.	Sima Ippa Chettu..	Tel.

A native of China, cultivated in the west Indies and S. America. In India, only grown as a fruit tree, has been introduced into the Dekhan from Goa, wood hard and close grained. The seeds are aperient and diuretic; in over-doses they are dangerous. The bark is said to be a good substitute for Cinchona. The *Tamil* name of this tree is liable to be confounded with Mimusops and Bassia.—*Jaffrey. Riddell. Roxb. Voigt.* 339; See Sapodilla. Diospyros sapota.

ACSHA. Sans. An astronomical term. Acsha ansa, and Acsha Bhagas, degrees of terrestrial latitude, Acsha Carna, Hypothenuse; but in its Astronomical sense, means what Europeans call the argument of the latitude, as well as Patana Chendra.

ACHULIYAJA. Beng. Long leaved Itea macrophylla.

ACHU VANAM. See Jews.

ACHYOOT. Beng. Morinda tinctoria.

ACHYRANTHES. A genus of plants of the natural order, Amarantaceæ, some of the species formerly placed with this, have now been removed to other genera. Wight in his Icones, figures A. alternifolia, aspera, bidentata, brachiata, diandra, ferruginea, fruticosa, lanata, lappacea, Monsoniana, muricata, orbiculata, prostrata, rubrofusca, scandens, sericea, triandra.

ACHYRANTHES ASPERA, *Linn. Roxb.*

Achyranthes Indica, *Roth. Rheede.*
„ obtusifolia, *Lamb.*
„ spicatus, *Burm.*

Upanga. ...	.. Beng.	Kadelari ?	...Maleal.
Hurhuria...	... „	Pratyuk pushpi	...Sans.
Chirchira...	... „	Apamarpa...	... „
Apang. ...	...Burm	Gas. ...	... Sp.
Agareh. ...	... Dut.	Nai uruvi,	...Tam.
Neagam...	...Egypt.	Utareni...	... Tel.
Rough chaff flower,	Eng.	Antisa,...	... „
„ Achyranthes.	„	Apamargamu.	... „
Lal-chirchiri.	..Hind.	Pratyuk pushpi...	„
Agareh. ...	... „		

A herb growing all over India, in many places, as a troublesome weed: its seeds, flowering spiked leaves, and ashes, are used in native medicine, and as greens.—*Roxb. Voigt. Jaffrey. Honigb. Useful Plants.* See Vegetables.

ACHYRANTHES INDICA. *Roth.* Syn. of Achyranthes aspera.

ACHYRANTHES LANATA. *Ainslie,*

Ærua lanata. *Roxb.*
Illecebrum lanatum. *Roxb.*

Khul ka jur....	...Duk.	Apanga... ...	...Beng.
Astma bayda...	...Sans.	Pot-kudapala	...Singh.

The root is deemed to be demulcent, and is prescribed in strangury. It is quite common in Colombo.—*O'Shaughnessy, page* 354. *Ainslie* ii. 393.

ACHYRANTHES OBTUSIFOLIA. *Lamb.* Syn. of Achyranthes aspera.

ACHYRANTHES ORBICULATA. See Sand Binding Plants.

ACHYRANTHES POLYGONOIDES.

Tooil keeray....	...Tam.	Soonishunna.	Sans.—
Chenchala koora.	...Tel.	*Ainslie's Mat. Med. p.* 254. !	

ACHYRANTHES VILLOSA. *Forsk.* Ærua lanata.

ACID LIME. Eng. Citrus bergamia, *Risso.* See Citrus acida.

ACIDE HYDROCHLORIQUE. Fr. Muriatic Acid.

ACID, MURIATIC.

Acid, Muriatic.	...Eng.	Muriatic Acid.	... Mng:
Spirit of Salt...	... „	Namak-ka tezab.	Hind
Hydrochloric Acid ;	„	AcidumMuriaticum	Lat

ACIDE NITRIQUE. Fr. Nitric Acid.

ACIDE SULFURIQUE. Fr. Sulphuric acid.

Met with in India only in commerce.

ACID, NITRIC. Lat.

Tha-lau-ta-gar	...Burm.	Aqua fortis ...	Lat.
Aqua fortis ...	„	AyerMenganchurmas ...	...Malay.
Nitric Acid ...	Eng.	Tez-ab-i...	.. Pers.
Acide nitrique ...	Fr.	Pottlu-uppu-dravakam	Tam.
Salpeter saure ...	Ger.	„ „ „	Tel.
Shore ka tezab.	..Hind.		
Acidum Nitricum	Lat.		

In India, an article of commerce.

ACID, NITRO-MURIATIC. Eng.

Nitro-muriatic Acid,	Eng.	Aqua-regia	......Lat.
Eau regale...	... Fr.	Acidum Nitro hydrochloricum...	„
Konigs-wasser...	...Ger.		

In India, an article of commerce.

ACID, SULPHURIC. Eng.

Ruch... ...	... Ar.	Arq-i-gao-gard	...Pers.
Kan-ia-bian.	...Burm.	Gandhaka dravakam ...	...Tam.
Vitriol	„	„ „	... Tel.
Sulphuric Acid ...	Eng.		
Gandak-ka-tezab ; Gandak-ka-atr. ...	Hind.		

In India, an article of commerce, but largely manufactured in the several mints.

ACIDS.

Tezab.	Hind : Pers.	Acidum... ...	...Lat.

The most important acids, in a manufacturing point of view, are the Sulphuric, Nitric, Hydrochloric, Acetic, Carbonic, Tartaric, Citric, Oxalic, and Arsenious, other acids are also important objects of commerce. For making these, natives of India have peculiar formulæ: their lemons and limes give them citric and the gram-plant (Cicer arietinum) the oxalic acid.—*Royle's Arts, &c. of India, page* 463. *Faulkner. Tomlinson,*

ACIDUM ACETICUM. Lat. Acetic acid.

ACIDUM ARSENIOSUM. Lat. Arsenic.

ACIDUM BENZOICUM. Benzoic Acid, though named from Benzoin, is found in other substances, which are on this account called Balsams, such as Storax, and the Balsams of Peru and of Tolu. It is also produced by the action of re-agents on several vegetable substances. Indeed, it is supposed by Prof. Johnston to be produced in the balsams themselves by the action of heat or other re-agents.—*Royle.*

ACIDUM MURIATICUM, or Spiritus Salis. LAT. Muriatic Acid.

ACIDUM PYROLIGNEUM. LAT. Pyroligneous Acid.

ACIDUM SULPHURICUM. LAT. Sulphuric Acid.

ACIER. FR. Steel.

ACIETE. SP. Oil.

ACKERWOOD, a fancy wood of a cinnamon colour.—*Faulkner.*

ACMENA LEPTANTHA. *Wight.*

Tha-byæ... ...	...BURM.	Kywai-tha-byæ	...BURM.

ACMENA PULCHELLA. *Roxb.*

ACMENA, ZEYLANICA. *Wight.*

Tha-byæ-pouk	...BURM.	Maraug-gass...	...SING.

Common in the hot, drier parts of Ceylon.—*Thw. En. pl. Zeyl. II. p.* 118.

ACONITINA or BIKYA, prepared from Aconitum ferox, is a formidable poison, 1-10th of a grain killed a goat in one of Dr. O'Shaughnessy's experiments in 12 minutes. The animal evinced severe distress and died in convulsions. The pupils were widely dilated. It is used in an ointment, one grain being mixed with a drachm of lard and is an invaluable local application in many forms of neuralgia, especially in tic-doloreux. It almost immediately occasions a tingling sensation in the part, then numbness, and relief of the pain.—An Extract of Aconite, was also prepared from the A. ferox by Dr. O'Shaughnessy. It is, however, a dangerous internal remedy, Externally, it is used in ointment as a substitute for the preparations from the expressed juice of the leaves of the Aconitum napellus.—*Beng. Pharm. pp.* 265, 286.

ACONITUM. *Linn.* This genus of the Ranunculaceæ is almost entirely confined to Europe and Northern Asia, a few only being American. Throughout the temperate part of the Himalayas, the species occur, but most frequently to the Eastward in the moist parts of Nepaul and Sikkim. Four of the Himalayan species are endemic, but three are also common to Europe. The roots of several, A. ferox, luridum, napellus and palmatum, are all extensively used as the Bikh poison, and throughout the Himalayas are indiscriminately so called, nor can the dried roots be distinguished from each other.—*Hooker, fils, et Thompson.*

ACONITUM FEROX. *Wall. Cat.*

Aconitum virosum. *Don.*

Batsnab Bish	...BENG.	Mitha Titia	...HIND.
Bish ...	... „	Mahoor ...	... „
Mitha Titia	... „	Wuchnak ...	...MAHR.
Ati-singia-bish	... „	Ati Singia-bish	... NEP.
„ „	... GUZ.	Bikh ...	... „
Vish ...	...HIND.	Bish ...	... „
Bisb ...	... „	Bishnak ...	... „
Bikh ...	... „	Ati-visha ...	...SANS.
Mitha Zahr	... „	Ati-vassa ...	... TEL.
Bishnak ...	... „		

This is the best known of those poisonous plants known as Bikh. It was first indentified and described by Dr Wallich in his Plantæ Asiaticæ Rariores. It is a native of the Himalayan mountains, Sirmoor, Kumaon, and Nepaul, growing at 10-14,000 feet, and one of the most celebrated articles in Indian medicine and toxicology. It is found at high elevations, sometimes at 10,000 feet above the sea, and Dr. Wight asserts, that wherever, within the tropics, we meet herbaceous forms of Ranunculaceæ, we may feel assured of having attained an elevation sufficient to place us beyond the influence of jungle fever. The root of this species of Aconite is highly poisonous, equally fatal taken internally or applied to wounds, but the effects of the aconite are witnessed in a concentrated state when the extract is introduced into a wound. A preparation of the root is much used in all the hilly districts in Northern India to poison arrows for the destruction of wild beasts, and tigers are destroyed by the poisoned arrows being shot from bows fixed near the tracks leading to their watering places. It has been used on several occasions to poison wells and tanks, and doubtless might be made a formidable means of defence against the invasion of the territories in which it abounds. The Goorkhas say that they could so infect all the waters with the dreadful root that no enemy could advance into their mountain fastnesses.—*O'Shaughnessy B. Dis.* 166. *Phar.* 265-286. *Useful Plants. Honigberg. Hooker f. et. Th.*

ACONITUM HETEROPHYLLUM. *Wall. Royle.*

Atis... ... ...HIND.

This plant occurs in abundance on the lofty mountains of Choor Shalma and Kedarnath but varies greatly in the size and form of its leaves, from which circumtsance it derives its specific name. It was first described and identified by Dr. Wallich in Plant: Asiat: Rariores, and has received additional notice from Prof. Royle. The root is composed of two oblong tubera, of a light ash colour externally, white internally, and of pure bitter taste and it has been long known in Indian medicine as a tonic and aphrodisiac. Honigberger mentions that the roots are given also in pectoral affections, coughs, &c. The roots are said to be eaten by the Kunawar hill men as a pleasant tonic under the same term Atees. But, two substances are met with in the bazar, one of them quite inert, up to two drams (120 grs.) having been given by Surgeon Walter without any effect.—*Useful Plants. Honigberger. O'Shaughnessy, p.* 166-8. *Ind. Ann. Med. Sci. Ap.* 1856, *p.* 395. *Hooker f. et. Th. Beng. As. Soc. Proceed.* See Atees.

ACONITUM LURIDUM. *H. f. et. T.*

This plant grows at Tankra and Chola in Sikkim at an elevation of 14,000 feet; the native names are supposed to be identical with those of A. ferox. *H. f. et. Th.*

ACONITUM LYCOCTONUM. *DeC.* A plant growing at from 7,000 to 10,000 feet in the Himalayas.—*H. f. et. Th.*

ACONITUM NAPELLUS.

A. dissectum. *Don.*
A. ferox. *Wall.*
A. delphinifolium. *Reich.*
A. multifidum. *Royle.*

Aconite Root...	...Eng.	Monkshood...	...Eng.
Wolfsbane. ...	... „		

A plant of Europe and America, and growing in the Himalayas up to 10,000 and 16,000 feet. It has variable forms. *H. f. et. T.*

ACONITUM PALMATUM. *Don.* A plant of the Himalayas up to 10,000 feet. *H. f. et. Th.*

ACONITUM VIROSUM. *Don.* Syn. of Aconitum ferox.

ACONTIAS, a genus of harmless serpents, of which several in India, they move with their heads erect. *See Serpents.*

ACORNS, the seed or fruit of the oak.

Balut	... Ar.	Ghiande ...	... It.
Glands ...	... Fr.	Glandes ...	... Lat.
Eicheln... ...	... Ger.	Balut... ...	...Pers.
Eckern... ...	... „	Schedudii...	... Rus.
Balut... ...	...Hind.	Bellotas ...	... Sp.

Common in the bazars of India, being used in native medicine. Their taste is astringent and bitter. In England they are used for feeding hogs and poultry. Several species of oak are indigenous in the Tenasserim Provinces, and on the hills of Northern India.—*Mason. Faulkner. McCulloch.*

ACORUS CALAMUS. *Linn.*

Acorus odoratus. *Lam. Rheede.*

Ig'hir... ...	Ar.	Vembu...	...Maleal.
Waj...	„	Vashambu ...	„
Ikaroon... ...	„	Wassumbu ...	„
Shwet-bach... ...	Beng.	Vaj.	Pers.
Bach... ...	„	Vaj...	„
Gora-bach ...	„	Ugir-turki. ...	„
Linbay... ...	Burm.	Vacha... ...	Sans.
Len-hæ... ...	„	Golomi... ...	„
Sweet-flag... ...	Eng.	Wadda-kaha ...	Singh.
Bach... ...	Duk.	Væsamboo ...	„
Acorus odorant,	Fr.	Vassambu... ...	Tam.
Akoron, Gr. of	Dios.	Vadaja... ...	Tel.
Bach... ...	Hind.	Vassa... ...	„
Kusseb-bewa? ...	„ ?	Vasa... ...	„
Safed Bach... ...	„	Vudya... ...	„

This genus of the Acoraceæ is a native o, Europe also of North America and cultivated in the moist and cool parts in India, Amboyna, Ceylon, Nepaul, Khassia Hills, Malabar, Bourbon, and Burmah, for its medicinal properties. The whole plant is aromatic but the root alone preserves the flavour in drying. It is a favorite medicine among the hindoos as a stimulant in flatulency. It occurs in the shops in longitudinal pieces, wrinkled and marked with projecting points, and might be easily substituted for more expensive spices or aromatics. The root is an aromatic stimulant, useful in ague. The Calamus aromaticus of the ancients is referred by Royle to the Andropogon Calamus aromaticus.—*O'Shaughnessy, p.* 626. *Royle, Pereiera. Roxb. Mason. Useful Plants.*

ACORUS ODORANT. Fr. *Sweet Flag.*

ACORUS ODORATUS. *Lamb. Rheede.* Syn. of Acorus calamus. *Linn.*

ACORUS VERUS differs much from A. calamus, and has been attributed erroneously to the Gentiana chirayta.—*O'Shaughnessy, p.* 626.

ACQUA-DI-RASA. It. Turpentine oil.

ACROCHORDUS, See Hydridæ.

ACRE, or AKKA, the Ptolemais of the Greeks: from the terrace on the top of the convent, there is a very fine panoramic view of the town. On the west, the walls are washed by the Mediterranean Sea, and, on the south, by a magnificent bay, extending from the city as far as Mount Carmel, being three leagues broad and two in depth. It was originally called Accho; but being in after times improved and enlarged by Ptolemy the first, it was called after him Ptolemais. Subsequently, falling into the possession of the Saracens, it recovered some semblance of its Hebrew name. It was first taken by the Saracens in 636. The Christians first became masters of it in 1104. Salah-ud-din got possession of it in 1184, and held it till 1191, when it was retaken by the Crusaders. The latter held it for exactly one century, when the Saracens finally wrested it from them and retained it until they, in their turn, were obliged to cede it to the Turks in 1517. From this time Acre remained neglected till about the middle of the last century, when the Arab Sheikh, Daher, took it by surprise. Under his wise administration, it recovered a part of its trade. He was succeeded by the famous, or rather infamous, tyrant Jazzar Pacha, who fortified and embellished the town. In 1799, it rose into importance and consideration by its gallant and successful resistance to the arms of Bonaparte, directed by Sir Sidney Smith, a British officer.—*Robinson's Travels, Palestine and Syria. Vol. I. p.* 198, 199.

ACRIDOTHERES TRISTIS. See Birds, Ornithology.

ACROCEPHALUS DUMETORUM. See Ornithology.

ACROSTICHON, a genus of ferns of the West and East Indies, and Australia. Dr. Hooker mentions that one of the genus clothes the betel palms on the Megna, with the most elegant drapery. It is the *Acrostichum scandens*, and is a climbing fern with pendulous fronds; at another place he found parasitic orchids growing on the trees, which were covered with this climbing fern, so that he easily doubled his flora of the river banks before arriving at Maldah.—*Hooker's Him Jour. Vol.* II. *p.* 338 *and* 351.

ACROSTICHUM FURCATUM. See Graminaceæ.

ACTÆA, a genus of the Ranunculaceæ, of which two species occur in India and China.

ACTÆA SPICATA. *Linn.* The Baneberry. A native of the Caucasus and Siberia. Roots astringent; the whole plant acrid and poisonous. The Actea acuminata, (Wall.) is found on the Choor and Acharanda mountains.—*O'Shaughnessy, page* 170.

ACTÆA ASTERA is sometimes collected in China, as the scouring-rush is, for cleaning pewter vessels, for which its hispid leaves well fit it.—*William's Middle Kingdom, p.* 286.

ACTEPHILA NEIGHERRENSIS. *Wight.*

A. Javanica. *Miq.*
Savia actephila. *Hassk.*
Anomospermum excelsum. *Dal.*

A small tree not very uncommon in the central and southern parts of Ceylon, up to an elevation of 2,000 feet —*Thwaites.*

ACTINIADÆ. See Zoantharia.

ACTINODAPHNE, a genus of trees of which several species, elegans, glauca, Molochina, Monii, speciosa and stenophylla, all small trees, are described by Thwaites as occurring in Ceylon.—*Thwaites.*

ACUCAR. PORT. SP Sugar.

AD, an Arab tribe of the Hadramaut.

ADA. BENG. Zingiber officinale. *Roscoe.* Amomum zingiber.

ADAB-UL-KABR. ARAB. Literally the customs of the tomb, where according to Mahomedanism, shortly after interment, Nakir and Mankir, the examiners of the dead, question the deceased as to his life in this world

ADA BIRA. TEL. అడబీర. Anisomeles ovata, *R. Br.*

ADA BUKKUDU. TEL. అడబుక్కుడు. Ehretia lævis, *R.*

ADA-BURNEE. BENG. Thyme-leaved herpestis. H. Monniera.

ADAI YOTTI. TAM. A sand binding plant.

ADAKA or CAVUGHU. MAL. അടെക്ക—കവൃങ്ങ Areca catechu. Betel-nut tree.

ADAKA MAJYEN. MAL. അടെകമെജിയൻ Sphæranthus hirtus. BURM.

ADAKI. SANS. . Cajanus Indicus.

ADALA VITALA. TEL. అడలవిటల. Lepidium sativum, *L* Cress seed.

ADALI. TAM. Jatropha glandulifera. *Roxb.*

AD ALLI. a Semitic race on the west of the Red Sea. See Semitic races.

ADAM. آدم The Gnostics, in framing their theological system, ranked Adam as Jeu, "the primal man," next to the Noos and Logos, and therefore the third emanation, from a deity. Mahomed styles Adam, Awal-ul-ambia the First of the Prophets, also Khalifa-ul Akbar, the first (of God's) vice-gerents, and in the tenth century, his grave in Ceylon became the established resort of mahomedan pilgrims. Adam's stature according to mahomedan legends, was about 36 feet. His burial-place is shown by the Arabs, at the hill Abu Kubays, and according to these legends Adam and Eve dwelt at Mount Arafat, where Adam's place of prayer is shown. According to Hippolytus, the Chaldæans gave the name of Adam, to the man who was born of the earth, but who afterwards became a living soul. The Hebrew word Adam is equivalent to the Aramaic Enos: both being the ordinary terms for man. But, Adam seems to be applied as man from the reddish complexion of the men of Canaan and Phœnicia, and Enos from the possession of manly strength. Adam or Edom, thus means the Red man of Canaan, and Phœnicia, or the fair complexioned, in distinction to Ham, the Dark, the Black, the inhabitant of Egypt, and Sem, the oldest patriarch of Israel, the glorious, the renowned; Japeth, the bright, the fair, the white man of Northern Asia.—*Ch. Bunsen, Vol.* iv. *p.* 373, 385, & 998——*Burton's Pilgrimage to Mecca, Vol. III. p.* 393. *Sir J. E. Tennant, Ceylon.* See Menu; Persian Kings. Prithivi.

ADAM, Dr. J. A Bengal Medical Officer, who was Secretary to the Bengal Medical Board; Founder of the Calcutta Medical Society. He wrote on the Geology of Bundelcund and Jubbulpore, in a Memorandum in the Bl. As. Trans. 1842, Vol. XI. 392. *Dr. Buist's Catalogue*

ADAM, WILLIAM. He reported on the state of Education in Bengal and Behar, in 1836 and 1838. He also wrote in the Calcutta Review in 1841, No. IV.; and in the As. Soc. Jl. 1838, Vol. XXVII.

ADAMANT, the modern Corundum. Professor Tennant states that the adamant described by Pliny was a sapphire, as proved by its form, and by the fact that when struck on an anvil by a hammer it would make an indentation in the metal. A true diamond, under such circumstances, would fly into a thousand pieces. Adamant is the Shamir of the Hebrews, spoken of in Ezek. iii. 9 : and Zech. vii. 12.—*Curiosities of Science, page* 103.

ADAMANTINE SPAR. Corundum.

ADA MARM. MAL. അടമരം Terminalia catappa. *Linn.*

ADAMAS. LAT. Diamond.

ADA MAYA. See Kama ; Lakshmi.

ADAMBEA GLABRA. *Lam.* and *Rheede.* Lagerstræmia reginæ. *Roxb.*

ADAMBO. MAL. അടമ്പു Lagerstræmia reginæ. *Roxb.*

ADAM MARRI. See Kelat.

ADA MODIEN. MAL. അടെമൊടയൻ Holastemma Rheedii, Spr.

ADA MORINIKA. TEL. అడమొరినిక. Cadaba Indica, *L.* Stroemia tetrandra, *R.*

ADAMS, an Englishman who visited Japan about the year 1599, and resided at the Court of Jeddo for many years. By his influence, Captain Saris delivered a letter from James I. to the Emperor and a treaty was signed in September 1613, granting privileges to the E I. Co.

ADAM'S BRIDGE, a narrow ridge of sand and rocks, mostly dry, forming the head of the gulf of Manaar, and with the Islands of Ramiseram near the mainland and Manaar near Ceylon, almost connecting this island with the continent ; a channel called the Paumben Pass, was deepened to 13 feet, by the Government of Madras.—*Sir J. E. Tennant's Ceylon.*

ADAM'S NEEDLE. ENG. Yucca gloriosa. See Liliaceæ.

ADAM'S PEAK, آدم کا پہاڑ the summit of a lofty mountain in Ceylon. A hollow in the lofty rock that crowns the summit was said by the Brahmans to be the footstep of Siva ; by the Buddhists, of Buddha ; by the Chinese, of Fo ; by the Gnostics of Jeu ; by the Mahomedans, of Adam ; and the Portuguese were divided between the conflicting claims of St. Thomas and the Eunuch of Candace, Queen of Ethiopia. Mr. Duncan, in a paper in the Asiatic Researches, containing " Historical remarks on the Coast of Malabar," mentions a Native Chronicle in which it is stated that a Pandyan, who was contemporary with Mahomed, was converted to Mahomedanism by a party of dervishes on their pilgrimage to Adam's Peak.—*Tennant's Ceylon. See Mahawelli-ganga.*

ADAM SHAH. The first of the Kalora amirs of Sindh.

ADANSONIA DIGITATA. *Linn.*

Adansonia baobab. *Gærtn.*

Baobab tree ...	...ENG.	Lalo Plant ...	...ENG.
Monkey Bread tree .	„	Papara-pulia maram.	TAM.
Ethiopian sour gourd	„	Anai pulia maram	„

This plant has been naturalised in India, and may be seen at Madras, Negapatam, Samulcottah, Bombay, and Guzerat Its trunk is very short, but, in girth, it attains the largest size of any known tree. Roxburgh mentions one 50 feet in circumference, in Ceylon. As a timber tree, it is useless, the wood being spongy and soft, but fishermen use its fruit as floats for their nets. Its bark and leaves have been recommended as a febrifuge.—*Useful Plants, Dr. Riddell. Voigt. Roxb. Ill.* 164 *Ainsl. Ind. Ann. p.* 372.

ADAPU KARRI. TAM. Charcoal.

ADARSA. SANS. Fine muslin.

ADAS. JAV. Fennel? or Henbane seed?

ADASARA. Adhatoda vasica.

ADASPEDAS. MAL. Henbane seed.

ADA SYAMALI. TEL. అడశ్యామలి. Helicteres Isora, *L.*

ADATODEY. TAM. ஆடா·தோடெ Adhatoda vasica.

ADAVI. TEL. Wild, not cultivated, hence,

ADAVI AMUDAM. TEL. అడవిఅముదం applied to several wild species of Croton and Jatropha.

ADAVI AVISA. TEL. అడవిఅవిశ. Bauhinia racemosa *L* ? *Fl. Andh.*

ADAVI BIRA. TEL. అడవిబీర. Luffa amara, *R.* ; *Fl. Andh.*

ADAVI CHAMA. TEL. అడవిచామ. Arum (Amorphophallus) sylvaticum, *R* ; *Fl. Andh.*

ADAVI CHAMMA. TEL. అడవిచమ్మ. Canavalia virosa, *W. & A.* ; *Fl. Andh.*

ADAVI CHERUKU. TEL. అడవిచెరుకు. Saccharum procerum, *R.* ; *Fl. Andh.*

ADAVI CHIKKUDU KAYA. TEL. అడవిచిక్కుడుకాయ. Lablab vulgare, *Savi.*

ADAVI-GODHUMULU. TEL. అడవిగోధుమలు, Coix barbata ? *R.*

ADAVI GORANTA. TEL. అడవిగోరంట Erythroxylon monogynum, *R. Cor.*

ADAVI JILAKARRA. TEL. అడవిజీలకర్ర Vernonia anthelmintica. *Willd.*

ADAVI KAKARA. TEL. అడవికాకర. Momordica mixta ? *R.*

ADAVI KANDA. TEL. అడవికంద Arum-yratum. *R.* Draconti polyphyllum. *Linn.*

ADAVI KIKKASA GADDI. TEL. అడవికిక్కసగడ్డి. Amphidonax bifaria. *Lind.*

ADAVI MALLE. TEL. అడవిమల్లె. Jasminum latifolium. *R. W. Ic.*

ADAVI-MAMIDI. TEL. అడవిమామిడి. Spondias mangifera, PERS.

ADAVI MAMENA. Tel. అడవిమామెన. Boerhaavia erecta, *L.*

ADAVI MOLLA. Tel. అడవిమొల్ల. Jasminum auriculatum, *Vahl.*

ADAVI MUNAGA. Tel. అడవిమునగ. Moringa pterygosperma, *Gærtn.* Wild variety.

ADAVI NABHI. Tel. అడవినాభి. Gloriosa superba ; *L.*

ADAVI NELLI KURA. Tel. అడవి నెల్లికూర. Premna sp. ?

ADAVI NIMMA. Tel. అడవినిమ్మ. Sclerostylis atalantoides, *W. & A.*

ADAVI NITYA MALLE. Tel. అడవి నిత్యమల్లె. Hibiscus hirtus, *L.*

ADAVI PALA TIGE. Tel. అడవిపాలతీగె. Cryptolepis reticulata, *Willd.*

ADAVI PIPPALI. Tel. అడవిపిప్పలి. Chavica sylvatica, *Miq.*

ADAVI PONNA. Tel. అడవిపొన్న. Rhizophora mucronata, *Lam.*

ADAVI POTLA. Tel. అడవిపొట్ల. Trichosanthes cucumerina, *L.*

ADAVI PRATTI. Tel. అడవిప్రత్తి. Hibiscus lampas, *Cav.* H. tetralocularis, *R.*

ADAVI TELLA GADDALU. Tel. అడవి తెల్లగడ్డలు. Scilla Indica. *Roxb.*

ADDA, Arab. A small lizard (*Scincus officinalis*) celebrated by Arabian physicians as a remedy in elephantiasis, leprosy, and other cutaneous diseases.—*Eng. Cyc.*

ADDA. Tel. అడ్డ. Bauhinia vahlii, *W. & A.* B. racemosa.

ADDALE. Tam. Jatropha glauca. See Oils.

ADDAR JASAN. The ninth day of the ninth month of the Parsee year. On this day, money is distributed to the priests, and offerings of sandalwood are made to the sacred flame in their fire temples, which are then much crowded.—*The Parsees.*

ADDASARAM. అడ్డసరం. Adhatoda vasica, *Nees.*

ADDATINNA PALAY. Tam. ஆடுதின்னாப்பாளை. Aristolochia bracteata.

ADDER, *a venemous serpent mentioned in Genesis,* Psalms and Proverbs, *genus not known.*

ADDER, DIAMOND, a reptile of Tasmania.

ADDHAMU. Tel. A mirror.

ADDIMUDRUM. Tam. அதிமதுரம். Liquorice Root.

ADDINIGAUS, a Bactrian sovereign in Ariana B. C. 26. See Greeks of Asia.

ADDIVI TELLA GADDALU. Tel. అడవి తెల్ల గడ్డలు. See Adava.

ADEGA. See Jewellery.

ADELIA CASTANICARPA. *Roxb.*

Bulkokra... ...Beng.

A large timber tree of Silhet and Chittagong, wood very hard. A. nereifolia R. of the Coromandel coast and A. cordifolia R. of Moluccas.

ADEN. A British settlement, on a part of Yemen, which is almost the most southerly point on the Arabian Coast: it is situated in lat. 12° 47' N., and long. 45° 10' E. and is a peninsula of about 15 miles in circumference connected with the continent by a low narrow neck of land, 1,350 yards in breadth, nearly covered by the sea at high spring tides. It consists of a large crater, formed by lofty and precipitous hills, the highest peak of which has an altitude of 1,775 feet: the town and part of the military cantonments are within the crater, and consequently surrounded on all sides by hills, save on the eastern face, where a gap exists, opposite the fortified islets of Seerah. The crater has also been cleft from north to south and the rents thus produced are called the northern and southern passes; the former better known as the Main pass, being the only entrance into the town from the interior or harbour. The principal harbour, or Back Bay, is the space between the northern shore of the Peninsula and the south coast of the continent. It is about 3 miles wide at the entrance, and affords an admirable shelter in all weathers for vessels which do not draw more than twenty feet of water. It is unsurpassed by any on the Arabian or adjacent African Coasts, being capacious, easily made, and free from rocks and shoals. Water of a good quality, but in limited quantities, is found at the head of the valleys within the crater and to the west of the town. As the wells approach the sea, they become more and more brackish, and those within the town are unfit for any purpose save ablution. These are in number about 150, of which probably 50 are potable, and yield an aggregate quantity of about (15,000) thousand gallons per diem. They are sunk in the solid rock to a depth of from 120 to 185 feet, and, in the best one, the water stands at a depth of 70 feet below the sea level. The Banian well, the best in Aden, is 185 feet deep, the bottom is 70 feet below the level of the sea, and, before being drawn, it contains about 4,000 gallons. *The wells within the town have an unlimited supply at from 30 to 40 feet, but the water, is unfit for drinking.* An inexhaustible supply of water is procurable on the northern coast of the harbour, but the difficulty of bringing it into Aden, and its liability to be cut off by hostile Arabs, render it almost unavailable. Many of the best wells have been excavated since the British conquest, and the oldest does not date further back than A. H. 906 (A. D. 1500.) Previous to this period, the place was supplied partly by means of reservoirs about 50 in number, and partly by an aqueduct which communicated with a well in the interior. There is no certain record of the construction of these reservoirs, but it is probable that they were first commenced about the second Persian invasion of Yemen, in A. D. 600. It is certain that they cannot be attributed to the Turks, as the Venetian officer who described the expedition of the Rais Suleiman in 1538,the first occasion of Aden being conquered by that nation, says that "they (the inhabitants of Aden) have none but rain water, which is preserved in cisterns and pits 100 fathoms deep," Greene, Vol. I. p. 91. Ibn Batuta, p. 55, also mentions this fact as being the case in his day. When Captain Haines visited Aden in 1835, several of the reservoirs appear still to have been in a tolerably perfect condition. The annual fall of rain in Aden seldom exceeding six or seven inches; and the reservoirs were constructed to preserve this. To remedy this scant supply the sovereign of Yemen, Melek-el-Mansur-Tak-ed-din Abdel-Wahâb-bin Tahir, towards the close of the fifteenth century, constructed an aqueduct to convey the water of the Bir Hamed into Aden, but it has long been ruined and disused. During the North-east monsoons from October to April, the climate of Aden is cool and agreeable; during the remainder of the year, hot sandy winds occur, known as the Shamal. Aden was anciently one of the most celebrated cities of Arabia, and owed its riches and importance to being the general entrepot of the great carrying trade which existed between India, Persia, Arabia and Africa and the various nations of Europe, Egypt and Phœnicia. Ships from the east conveyed the treasures of their respective countries thither, for transmission up the Red Sea, by means of smaller craft, to the ports of Egypt; rich caravans brought to it the produce of the thuriferous regions, and merchants from all parts of the east and west formed their commercial establishments, and imported the goods of their various lands, either for consumption in the country or to be forwarded to the further east. The author of the Periplus of the Erythrœan Sea informs us that, shortly before his time, Arabia Felix or Aden, had been destroyed by the Romans; and Dean Vincent is of opinion that the Cæsar in whose reign this event took place, was Claudius. The object of destroying so flourishing a port is not difficult to determine:—from the time that the Romans first visited Arabia under Ælius Gallus, they had always maintained a footing on the shores of the Red Sea; and it is probable that Claudius, being desirous of appropriating the Indian trade to the Romans, sought a pretext for quarrel with Aden, in order that he might, by its destruction, divert the Indian trade to the ports of Egypt; this he was the more confident of effecting, as the direct passage across the Indian ocean had been discovered, some time previously, by Hippalus, a Greek of Alexandria. In the time of Constantine, Aden had recovered its former splendour, and, as a conquest of the Roman empire, it received the name of Romanum Emporium. Under British rule, ever since its conquest in 1839, its rise has been rapidly progressive. The port of Aden was declared free by Act X of 1850. The result as follows:—during the seven years ending 1849, trade amounted to Rs. 1,30,95,578. During the seven years after 1850 the trade aggregated Rs. 4,21,07,337, the last year exceeding the first by Rs. 59,07,448. Owing to intestine disturbances and famine, but particularly to the entire cessation of the Hijaz trade, in consequence of the Jedda massacre of 13th June 1858 and disturbances in Yemen, the decrease in the exports of coffee amounted to Rs. 10,24,442, and of Ivory Rs. 3,97,183. In 1857, the population consisted of—

Christians...	1,129	Parsees......	61
Indian Mahomedans	2,557	Jews......	1,224
Arabian ditto	4,812	Miscellaneous. ...	1,659
African ditto	3,627		
Other ditto	58	Total...	20,738
Hindus........	5,611		

Aden is mentioned by Stephanus Byzantius and it is supposed to be the Eden of which Ezekiel makes mention as a great commercial place. The character of the inscriptions is Himyaritic—*Playfair's Aden. Mr. Burr in M. J. L. and S.—Ouseley, Vol. I.* 336. See Khadim. Jews. Somali. Arabia. Reservoirs. Mocha; Perim. Shamal. Somal: Beer-el-somal.

ADENANTHERA ACULEATA. *Roxb.*

Prosopis aculeata, *As. Res. Konig.*
" spicigera, *Willde.*
Chani... ... ...TEL.

Grows to the size of a tree on the Coromandel side of India on low lands far from the sea, in some parts of Hindustan. Its pod is an inch in girth and 6 to 12 inches long and contains, besides the seeds, a large quantity of a sweetish agreeable mealy substance which the people eat. —*Voigt.* 259. *Roxb. II.* 371. See Premna spicigera, *Linn.*

ADENANTHERA FALCATA. *Linn.*

A tree, native of the Moluccas.—*Voigt.* 249.

ADENANTHERA PAVONINA. *Linn. Willde.*

Corrollaria parviflora, Rumph.

Rakto chandan	...BENG.	Mansiadi...	...SINGH.
Ranjana...	... "	Madetiye...	... "
Y-wai-gyi...	...BURM.	Manjadi. ..	... TAM.
Red wood tree.	.. ENG.	Ani Gandamani...	"
Ranjana...	...HIND.	Aui kundamani...	"
Ku-chandana.	... "	Bandi Gurivenda.	TEL.
Manjati. ...	... MAL.	Manseni Kotta....	"
Mandsjati.	... "	Bandi Guruvindza	"
Kambhoji...	... SANS.		

This is a large and handsome tree, growing at times 100 feet high and found in most of the forests of India. It is not very plentiful in Burmah, being widely dispersed; but it is met with in sufficient quantity in the Rangoon, Pegu and Toungboo districts It grows in both peninsulas of India, in Sylhet, Bengal, Assam, and the Moluccas. The inner wood of large, old trees, is deep red, hard, solid, and durable suitable for cabinet-maker's purposes, from which in Upper India, it gets its name of Raktochandan, or red Sandal wood; but the true red Sandal or Red Sandars wood of commerce, is the Pterocarpus santalinus. The wood is said to yield a red dye; ground to a paste with water, it is used by hindus to make the sectarian marks on their foreheads. The seeds are of a highly polished scarlet colour, with a circular streak in their middle on each side, and are used as weights by jewellers, and as beads in bracelets, necklaces, &c. Books represent these as usually weighing four grains, and selected seeds are in use by the Burmese, for that weight. Many however do not weigh more than two or three grains each. A cement is made by beating them up with borax and water. The powdered seeds are said to be used as a farina, the pulp of the seeds mixed with honey is applied externally to hasten suppuration in boils and abscesses.—*Hooker's Him. Jour. Vol. II. p.* 322. *McClelland. Mason. Useful Plants. Ju*[illegible] *Reports, Madras Exhibition. Mendis* [illegible] *Bengal. Ex* 1862. *Dance. Voigt.* 259. *Hog. Roxb. ii.* 370.

ADENEMA HYSSOPIFOLIA. *Don.*
Cicendia hyssopifolia. *(Adans.)*
Chota chirayita. *Hind.*

Common in various parts of South India, as at the south of Adyar. Is very bitter, and much used by the natives as a stomachic, being also somewhat laxative.—*Indi. Ann. Medl. Scien. page* 270, *Cleghorn.*

ADENOPHORA LILIFOLIA. *Ledeb.* Campanula lilifolia.

ADENOSMA ULIGINOSA. *Burm.*
Ruellia uliginosa. *Linn.*

One of the Acanthaceæ. The juice of its leaves mixed with salt, is used on the Malabar Coast as a purifier.—*Hog. Voigt.* 482.

ADENOSMA BALSAMEA has a strong odour of turpentine.

ADEPS MYRISTICÆ, a concrete oil obtained from nutmegs, by expression: sometimes erroneously called Oil of Mace.—*Simmonds.*

ADEPS SUILLUS. Latin. Hog's lard.

ADERJIBAN. A province of Persia.

ADESH. A name of Astarte. See Ken.

ADEVA RAJAS of Tuluva, Andhra, or Telingana, capital Woragalli or Warangal. One of these in authentic history was Pratapa Rudra in A. D. 1162, prior to whom, 19 Adeva Rajas reigned 370 years (211 ?) and are supposed to be the 18 princes of Andhra descent, and Sri Ranga, seems to have reigned in A D. 800.—*Thomas' Prinsep's Antiquities, p.* 278.

ADHA BIRNI. Hind. Herpestes monniera.—*Ham. Buch.* and *Kunth.*

ADHARA SACTI. See Sakit.

ADHAR. Sans. **AHARA.** Sans. Food.

ADHATODA BETONICA, Nees, a perennial of the Monghyr hills, Prome, Coromandel and Concans. A. ramosissima, Nees, is also named by *Voigt.* 488, and Wight figures A. Neilgherrica and A. Wynaudensis.

ADHATODA VASICA, *Nees. Roxb.*
Justicia adhatoda. *Linn. Roxb.*

Bakus... ...	...Beng.	Asganda. ...	...Hind.
Basoka...	„ „	Urus or Utarosha..	Sans.
Malabar Nut...	... Eng.	Adadode ...	... Tam.
Aris... ...	...Hind.	Addasaram.	... „
Arus... ...	... „		

This shrub grows in Ceylon, in both the Indian peninsulas, in Bengal, Nepal, Sylhet, and Java. The wood is soft and considered well suited for making charcoal for gunpowder. Its leaves are used in native medicine.—*Ainslie. O'Sh. p.* 483. *Voigt.* 488.

ADHELA. Hind. Sans. Half a paisa. Adheli, Half a rupee or Ashraffi, half of any the of money. See Silver coins.

ADHERMA. Injustice. See Brahmadicas. Jains. Properly Adharma.

ADHIGACHHED YADI SWAYAM, a brahman girl's right to select her own husband. See Swayamvara.

ADHIKANAN, a poet of the Dekhan.—*As. Trans.*, Vol. I. p. 141.

ADH-PAO. Hind. Literally half a quarter - one-eighth.

ADHVANIDRUG (Adoni) in lat. 15° 38' 9; N. and long 77° 15'. 8 E. S. of the Tungabudra. The Hill station is 2,103 ft. G. T. S. above the sea and (Adoni) village is 1,395 feet.

ADHWARYU, See Hindoo.

ADI. Sansc. First. Old.

ADIANTUM CAPILLUS VENERIS.

Shair-ul-jin	...Arab.	Mubarkha	...Hind.
Venus hair	... Eng.	Hans-raj...	... „
Fairy's „	... „		

Is indigenous in the Himalayas, and like the European product it is given as an expectorant. In Europe it is the basis of the celebrated Syrop of Capilaire—*O'Shaughnessy, p.* 677. See Ferns, Capilaire.

ADIANTUM CAUDATUM *Wall.* Has been introduced into India—*Voigt.* See Capilaire.

ADIANTUM LUNULATUM. Burm. Spr.

Hunsraj.	...Hind.	Shuer-ul-jin.	...Arab.
Mobarkha...	...Hind.		

Occurs in many places in India and Burmah. It is probably this regarding which Dr. Mason says—that a small handsome fern is seen in the crevices of old ruins and walls everywhere, of the same genus and nearly resembling the English maiden hair—"the prettiest of all ferns."—*Mason. Voigt.*

ADI-BUDHA. See Adi; Buddha. Topes.

ADI-GRANTH, a sacred book of the Sikhs compiled in 1581 by Arjun Mul. See Sikhs.

ADI or Ai Island, in New Guinea, the Pulo Adi of the Malays, Wessels Eylandt of the Dutch, and in Lat. 4. 19' S. Long. 143° 47' E. (East Point), Modera, is about 25 miles in length lying to the N.N.E. of the great Keh, distant about 60 miles, and being the south-western—most of a group of high islands which, until lately, were considered as forming a part of New Guinea. The inhabitants are Papuans or Oriental Negroes, and as they do not bear a high character among their neighbours, they are rarely visited except by traders from Goram and Ceram Laut, who have found means to conciliate them. The sea is unfathomable at a short distance from the island, but there are several indifferent anchorages on the north side. No vessel should attempt to visit the island for purposes of trade without previously obtaining a pilot at Goram, who will also act as interpreter, the natives not being acquainted with the Malayan language. Wild nutmegs, trepang and tortoise-shell are to be obtained here, but not in sufficient quantities to tempt a European vessel to visit the island for purposes of trade, particularly as these articles can be obtained more readily at some of the adjacent ports of New Guinea. Red calico, parangs or chopping knives, coarse cotton shawls and handkerchiefs, with iron, Java tobacco, muskets and gunpowder, are the principal articles in demand. The chief traffic is in slaves which are distributed among the neighbouring islands of the Archipelago, and are sometimes carried as far as Bally and Celebes. This probably accounts for the deficiency of other articles of export. Pulo Adi is separated from the large island of which Cape Katemoun forms the S. W. extremity, by a strait 8 miles wide, which seems to be full of dangers, and should only be ventured upon with the greatest caution.—*Jour. Ind. Arch.*

ADIMODURAM. TAM. அதிமதுரம் Root of Glycyrrhiza glabra, also of Abrus precatorius.

ADINANAGUR. In Kohistan, 1,200 feet above the sea.

ADINATH, the celestial Buddha. See Adi. Jains. Topes.

ADI SESHA. SANS. Literally old serpent. A term used in Hindu Mythology but its meaning is unknown.—*Taylor's Hind. Myth*, See Serpent.

ADIS MANIS. JAV. Aniseed.

ADITES. See Saba.

ADITI, daughter of Daksha, and one of the two wives of Casyapa. She was mother of the Devas. See Aditya, Agni, Casyapa, Deva, Surya, Surya vansa, Vamana.

ADITWAR. Sunday, from Adit, the first, war, day. See Surya.

ADITYA. The twelve Adityas, in hindu mythology, are said to be the offspring of Aditi, and Casyapa who is called the mother of the gods. They are emblems of the Sun for each month of the year; and are themselves called Suns: their names are Varuna, Surya, Vedanga, Bhanu, Indra, Ravi, Gabhasti, Yama, Swarnareta, Divakara, Mitra, and Vishnu.—(Gita, p. 144.) Of these Vishnu seems to be considered as the first, for Krishna, describing his own pre-eminence, says, "among the Adityas, I am Vishnu."—The verbal meaning of Aditya, is the attractor. The names of the twelve vary according to some authorities.—*Coleman, p.* 85. *William's, Nala, p.* 122.—See Hindoo, Lakshmi, Mewar, Surya.

ADITYA BHAKTI. TEL. ఆదిత్యభక్తిచెట్టు Helianthus annuus, *L.—R.*

ADITYA VARMA. See Inscriptions.

ADJUNTA, in Kandesh, is celebrated for its numerous caves, excavated out of the mountain. The period of this gigantic labour seems to have been towards the decline are buddhism in the peninsula of India, before or about the eighth century. The subjects are buddhist; one of the inscriptions commencing with the formula, "Ye dharma." The language is Pali, and the character used is intermediate between those of the Lat and Allahabad. But, there is one resembling the Balibhi and one in the Seoni parallelogram headed character, which is of the eleventh and twelfth centuries. These inscriptions appear to be of different ages, from variations in the character. The figures of three Chinese are represented in some of the fresco paintings in the caves. The paintings are admirable for their spirit and variety of subjects. In some, the sculptures and paintings evidently represent royal personages and royal doings. One of the numerous inscriptions is of interest from the character resembling that of Wathen's Balibhi inscription, which with others show the gradations of the character upwards into antiquity. The caves are remarkable for their paintings as well as sculptures They were first described by Lieut. Alexander in the Royal Asiatic Society's Transactions (*Vol. p.* 558) and afterwards copied by Captain Gill.

Some of the many fresco paintings in these caves, are still very perfect, having escaped the observation of the mahomedans when they invaded the Dekhan early in the fourteenth century and destroyed similar paintings in the Buddhist caves of Ellora. Though their date is uncertain, the series may extend from the first or second century before Christ to the fourth and sixth century of this era. One large picture represents the coronation of Sinhala, a Buddhist

King. He is seated on a stool, crowned with a tiara with necklaces, armlets and bracelets of gold, and girls are pouring corn over his shoulders. Naked to the waist, he wears a striped dhotee covering from the waist to the knee with one passed across his chest and over his left shoulder; most of the men as attendants are similarly clothed with dhotees reaching from the waist to the knee. The soldiers present, spearmen and foot and horse, and groups of soldiers with long oblong shields and curved swords, have short waist cloths only, tied like a kilt. All the women are naked to the waist. Another picture of two male figures seemingly discussing something and wearing dhotees only, is skilfully drawn. In a picture of two holy men, seemingly Greeks, one has a long robe reaching to his feet, with loose sleeves, the other with a nimbus round his head. A large picture represents the introduction into Ceylon, of buddhism, and all the figures of men and women in it have only short waistcloths or kilts. Another graceful picture represents a holy buddhist being carried through the air by two naked women, and in a representation of Buddha teaching, his right arm is naked, and female figures stand, in different attitudes, around, all naked, but have necklaces, earrings and bracelets, and one has a girdle of jewels round her loins.—*Ed. Rev. June* 1867, *pp.* 131-2. *Taylor's Mackenzie M. S. S. B. As. Soc. Journ.*

ADJUTANT BIRD. ENG. Leptoptilus argila.

ADNAN, the lineal descendants of Ishmael who are called al Arab ul mostareba or mixed Arabs. They occupied the Hijaz, and amongst their descendants was the tribe of Koresh.—*Wright's Arabia.* See Joktan.

ADO-MODIEN. Holostemma Rheedianum.

ADONDA. అదొండ. Capparis horrida, *L.*

ADONDA CHAKRAVARTI. A Chola leader who seems to have been the subduer of the Curumber or shepherd tribes.

ADONIS, two species of this plant are met with in high Asia, viz. A. Æstivalis and A. Pyrenaica. A species is cultivated in gardens. Most of the species are blood red in colour.—*H. f. et T. Riddell.*

ADRAK, also ADA. BENG. and HIND. ادرک Zingiber officinale. A dark (green), Sont (dry), GUZ. Hind. Ginger.

ADRA MALECH, the male power of the sun: among the Samarians, children were burned as to Molech.

ADULE KAI. TAM. Cucumis tuberosus.

ADVAITAM, or non-duality, the name of a Hindu school established by Vyasa, and carried out by Sankara Charya. The Advaitam denies the existence of moral evil. See Vyasa.—*Taylor.*

AGAO. HINDI, PESHGI. HIND. *Pers.*

Achawaram ...TAM. | Achagaram ...TEL.

Advances. The system of advances, as well as earnest money, is common in the east. At Aden, Captain Burton heard of two-thirds the price of a cargo of coffee being required from the purchaser before the seller would undertake to furnish a single bale.—*Burton's Meccah, Vol. II. p.* 332.

ADWAITANAND. See Chaitanya.

ADYAR. A small river which commences principally from the leakage of tanks about 30 miles west of Madras, and enters the Bay of Bengal, in the south environs of Madras, being spanned by three bridges in its course.

ADYIPILLU ARISI. TAM. அடவி பில்லு அரிசி Oryza sativa.

ÆAYTHYA MARAM. வொதிய மரம். TAM. Odina pinnata.

ÆCCA. See Yavana.

ÆCEOCLADES AMPULLACEA, *Lindl.* Saccolabium rubrum; Aerides ampullaceum, Red saccolabium, with rosy flowers, is very handsome and quite abundant in the Tenasserim Provinces. Lindley says it can scarcely be distinguished from *S. ampullaceum* of Wallich's catalogue. Wight gives a figure, 1683, of Æ. tenera.—*Wight. Mason. Roxb.—Voigt.* 630. See Œceoclades.

ÆCIDIUM THOMSONI. See Fungi.

ÆGAGRUS, a wild species of Ibex, of middle and North Asia, called Paseng by the Persians. *Cat. As. Soc. Beng.* See Capreæ.

ÆGICERAS FRAGRANS. KON.

Æ. majus, *Gært. Roxb.*
Æ. obovatum, *Bl.*
Æ. floridum, *Rom.*
Rhizophora corniculata, *Linn.*

Hulsi... ... ...BENG. | Bu-ta-yat... ...BURM.

A large shrub in the Tenasserim Provinces and both Peninsulas and Java; when in bloom it is covered with small white flowers, which seem to have great attractions for the fire-flies. In moving up the streams near the sea-bord on a dark night, these trees are often seen illumined with myriads of waving brightening wings, and making them look in the deep gloom, like superb candelabra hung with living lamps.—*Mason. Voigt.* 336. *Roxb.* iii. 130.

ÆGICERAS MAJUS, *Gært.*

Hulsi... ... .. BENG.

A small tree of the Ganges.—*Roxb.* iii. 130.

ÆGINETIA INDICA, *Wilde.*

Tsjem cumulu. MALEAL.

A small annual rush like plant, singular looking; with a flower like the bowl of a tobacco pipe, grows in the Circars, at Khandalla, Salsette and Konkans.—*Roxb.* 130. *Voigt.* 496.

ÆGITHINA ATRICAPILLA. See Ornithology.

ÆGLE MARMELOS, *Corr.*

Cratæva marmelos, *Linn.*
Feronia pellucida, *Roth.*

Bel. ...	... BENG.	Huvelam ..	... MAL.
Oo-sheet...	...BURM.	Bala ghund.	...PUSHT.
Ouk-sheet.	... „	Mahura ..	... SANS.
Bengal quince ...	ENG.	Shree Phula. ...	„
Thorny quince...	„	Beli ...	... SINGH.
Bel fruit tree. ...	„	Vilva-maram. ...	TAM.
Larger wood apple	„	Maradu chettu....	TEL.
Bel ...	... HIND.	Bilvamu chettu...	„
Bel ...	...MAHR.	Vilva chettu. ..	„
Tanghai ? or Tangul or Tangala	...MALAY.	Malu-ramu chettu	„

The Bel, Bengal quince, or larger wood apple, is a large thorny tree which flowers during the hot season, and its large spheroidal fruit ripens after the rains. The tree is common on the Bombay side, in waste places, inland forests, and old gardens. It is found in gardens in the south of India, and about towns and villages throughout the Prome district and also about Tonghoo, more especially on the Shan side of the river, where the large spheroidal fruit may be had in great quantity from the end of February to the end of July. The wood is light coloured, variegated with veins, compact and hard, but is not used, partly perhaps from a religious feeling on the part of the hindus, with whom the tree is sacred to Siva and partly from the value of the tree from the great medicinal virtues of the fruit. It belongs to a family, the Aurantiaceæ or orange tribe, remarkable for the excellence of its wood, which is usually small. This wood is very strong, and, in the Godavery districts, the native dhol or drum, is often made of it. In Ganjam and Gumsur, it attains an extreme height of 30 feet and circumference of 3 feet. The height from the ground to the intersection of the first branch, being 10 feet. The wood is ground with water into a sort of oily paste which is poured on the lingum in the temples dedicated to Siva. The leaves are offered to Siva and to the female divinities in the same way that the leaves of the toolsee are offered to Vishnu. The fruit is delicious to the taste and very fragrant. It is smooth, resembling an orange, with a yellow hard rind, which is astringent and used in dyeing yellow. The fruit has been long in use, in diarrhœa, and its aperient and detersive qualities and its efficacy in remedying habitual costiveness, have been proved by constant experience. It has lately been brought into repute when fresh and in conserve as a remedy in some kinds of dysentery. When dried before it is ripe, the fruit is used in decoction in diarrhœa and dysentery, and when ripe and mixed with juice of tamarinds, forms an agreeable drink. The mucus which surrounds the seeds is, for some purposes, a very good cement; Dr. Gibson thinks this beautiful ready made varnish which surrounds the seeds, may some day be turned to use in the arts. Its dried fruits Belgar also Belgiri are used in medicine. The roots, bark and leaves are reckoned refrigerant in Malabar. The bark of the root, especially is given in decoction, in intermittent fever, and the leaves are applied as a poultice in ophthalmia. They abound in a volatile fragrant perfume known as marmala water, which is distilled from the flowers, and is much used by the natives as a perfume for sprinkling on visitors. Lest the resemblance of the wood apples to the fruit of the Nux vomica might give rise to accidents, it should be remembered that their strong aromatic smell like that of all other fruits belonging to the orange family will distinguish them easily from the Nux vomica, which is devoid of aroma.—*Drs. McClelland. Wight. Gibson. Brandis. O'Shaughnessy. Riddell. Waring. Cleghorn. Major Drury's Useful Plants. Mr. Elliot. Cal. Cat. Ex.* 1862. *Hog. p.* 138. *Roxb: Ind. An. Med. Sc. of* 1854, *p.* 222. See Kussowlee; Zonar. Cratæva Resin.

ÆGLE SEPIARA. The Hedge Quince is used in Japan for hedges, its thorny branches being useful. The fruit is never eaten raw but is roasted on hot ashes. It has a glutinous pulp, which is laxative.—*Hog. Veg. King.*

ÆGOCEROS CAPRA. One of the Capreæ.

ÆKNERENCHI. Singh. Tribulus terrestris.

ÆLIA, the modern Jerusalem.

ÆLIUS GALLUS, a Roman of the Equestrian order, sent, B. C. 24 to A. D. 1, with a force to explore Ethiopia and Arabia: the force was organized at Cleopatris, in the neighbourhood of the modern Suez, and consisted of 10,000 Romans, with 15,000 mercenaries, together with a fleet of 80 vessels of war and 130 transports. After two years' absence in Nejran, Ælius Gallus brought back with him but a small part of his army, hunger, fatigue and sickness having destroyed the remainder, for only seven fell by the sword.—*Playfair's Aden.*

ÆOLUS, the Vayu of the Hindu mythology. See Saraswati.

ÆSCHYNOMENE PALUDOSA.

Pouk...	...BURM.	Nya...	...BURM.

Synonim of Æ. aspera.

ÆRIDES, or air plants, are numerous in all the humid parts of South Eastern Asia, and as they are worth much in England, they are often exported. The closer they are confined, the better will be their condition on reaching the place of destination. They are not much cultivated by Europeans in their Indian gardens, the exotic flowers of their native land being most thought of, but Dr. Mason truly says they might be a rich acquisition to our tropical parterres. The Tennasserim Provinces abound in air-plants or orchids, most of which grow on trees and are epiphytes, not parasites. More than fifty different species have been described, and there are probably as many more unknown to science. The flowers of some of the species are great favorites with the Burmese and are sought after to adorn the hair. The Burman books say that the trees around King Wathandria's hermitage were covered with orchids, and that after being plucked they would retain their fragance seven days. They are very numerous in the Andaman islands, where, in the course of a few hours, a vast number can be collected. The following are figured by Wight—A. cylindricum, 1744; Lindleyanum, 1677; radicosum, 917: and Wightianum, 1669 and Roxburgh and Voigt. notice eight species.

ÆRIDES AFFINE. *Wall.*

With large rose coloured flowers, of Assam, Nepal and the Khassia Hills.—*Voigt.* 631.

ÆRIDES AMPULLACEUM. *R.*

Grows on trees and blossoms in May.—*Roxb.* See Æceoclades ampullacea.

ÆRIDES CORNUTUM. *R.*

In Dacca and eastern Bengal.

ÆRIDES GUTTATUM.

Perida Mara, TEL. Syn. Saccolabium retusum. A lofty parasitic species, growing on trees near Dacca.—*Roxb. p.* 471.

ÆRIDES MULTIFLORUM, *R.*

A large and beautiful species of Silhet with large purple and white flower.—*Roxb.* iii, 475.

ÆRIDES ODORATUM, *Lour.* A sweetly fragrant plant, with large white flowers, with a tinge of rose. It is met with at Dacca, the Khassya Hills, Chittagong; in the Bombay Ghats, on the Mahabaleshwar Hills, Tenasserim, Moulmein, China and Cochin-China; the flowers hang in long racemes of a light flesh colour and spotted, from six inches to a foot long. They grow from the axils of the leaves, appearing in April and May.—*Voigt.* 631. *Mason.*

ÆRIDES PALLIDUM. *R.* Found on trees in Chittagong and Eastern Bengal.

ÆRIDES RADIATUM. *R.* Found on trees in the Gangetic delta.

ÆRIDES ROSTRATUM. *Roxb.* Blossoms in April and May in Silhet.

ÆRIDES SUAVEOLENS. *Roxb.* Found on trees in Chittagong, has very fragrant flowers all the year long.

ÆRIDES TESSELATUM. *Wight.* With large flowers of a greenish yellow, grows in the Circars—*Voigt.* See Cymbidium. Epiodendrum. Æceoclades. Saccolabium.

ÆROLITES.

Devi-gola ... ...HIND. | Dew-gola. ... HIND.

These are not uncommon in the possession of hindus, who worship them. The guardian of a temple showed Baron de Bode, a flat black stone in the recess of the window, which appeared to be an ærolite, weighing several pounds, and let him into the secret of its wonderful properties, namely, that of being propitious to mothers who wish to be blessed with a numerous family, and who, on pressing it to the heart, must recite some prayers. This peculiarity bears some resemblance to what is told of the temple of *Halgah-Baal,* at Emessa, on the Orontes, in Phœnicia. Ærolites have in general played a conspicuous part in the early religions of the Semitic nations. There are two varities of aërolites or meteorites, that have been seen to fall from space. The one consists of stony masses, often containing particles of iron, and of these many have been observed in their fall: the other variety is composed, for the most part, of iron. The actual fall of iron aërolites has been but rarely witnessed, though many masses of metallic iron have been found on the earth's surface, of the meteoric origin of which there can be no doubt. Since 1852 three meteors have been seen to fall, on the southern part of the peninsula of India. One in the Nellore Collectorate, another in the extreme south, pieces of which have been lodged in the Madras Museum, and one on the 21st September 1865, in the Muddoor taluk of the Mysore country, the pieces of which have been lodged in the Mysore Museum at Bangalore. The falling of the following meteors in India has been established.

		lbs.	Grs.
Dec. 13, 1798.	Krakhut, Benares ...	...	3,362
Sep. 1808.	Moradabad, Bengal ..	...	...
Feb. 18, 1815.	Duralla, Territory of the Patyala Raja...	29	...
Nov. 30, 1822.	*a.* Futtehpoor, Allahabad		53,880
	b. Bittoor and Shahpore, 75 miles N. W. of Allahabad...	...	2,112
Feb. 16, 1827.	Mhow, Ghazeepore... ...		2,859
1832-3.	Umballa......	...	...
April 18, 1838.	Akburpore, Saharanpore		36,011
June 6, 1838.	Chandakapoor, Berar ...		11,040
July 26, 1843.	Manegaon, Kandeish...	...	...
Found 1846.	Assam, India......... ...	1	901
Nov. 30, 1850.	Shalka, West Burdwan		63,529
Jan. 23, 1852.	Nellore, Madras...	30	...
March 6, 1853.	Segowlee.....		...
Feb. 28, 1857.	Parnalee, Madras... ...	130	...
Dec. 27, 1857.	Pegu (Quenggouk).......		34,280
March 28, 1860.	Khergur, Agra...........	...	...
July 14, 1860.	Durmasala......	28	5,250
May 12, 1861.	*a.* Peprassee.........	5	...
	b. Bullooah...............	...	2,400
	c. Nimbhooah (40 miles from Goruckpore.) ..		
Sept. 21, 1865.	Muddoor, Mysore Country...........		

As those of 1852, 1857 and 1865, were sent to the Madras and Mysore Museums, both of which Dr. Balfour had formed, and was then in charge of, the account he received of one of them may be given from the Rev. H. S. Taylor's letter who thus wrote:—Near the village of Parnallee in this Talook, two meteoric stones had fallen. Both fell on Saturday, the

28th of February, 1857, at about noon a little south east of the village of Parnallee, Latitude North, according to the Government Map, 9° 14', Longitude, 78° 21' east. The larger one fell a few seconds before the smaller one, and from two to three miles north of it. As was manifest from the hole it made in the ground when it fell, it came from a direction some ten degrees west of north, making an angle of about 15 or 20 degrees with a line perpendicular to the earth's surface. It struck the earth (or at least lay in the bottom of the hole made by it) flatwise, on the side that is most convex. The most round or convex side of the smaller stone also was downward, this being the position they would naturally assume as they passed with great velocity through the resisting atmosphere. The larger stone sank into the earth when it fell, two feet and five inches, in a perpendicular direction. The smaller one two feet and eight inches. The smaller one fell also, about perpendicularly. The smaller does not appear in any respect like a fragment of the larger one. The specific gravity of the smaller one, when it fell was about 3·3, water being the standard of unity. He observed that the specific gravity was increased after exposure to a shower, as that of the smaller one was. He did not try that of the larger. The crack on the convex side of the larger one he did not perceive at all till it had been wet, and then, at first, it was but just perceptible. Afterwards it gradually opened, he supposes, owing to the oxidation of the native iron it contains, perhaps, however to other causes. The stones had not been wet till they came into his hands, April 21st. They, each of them, fell in cultivated fields, one of which had been harvested. The stock in the other was still standing. The noise seems to have been terrific to the Natives, causing those near to crouch from fear. It came like two claps of thunder, as they fell one after the other, and continuing for some time, but gradually growing less loud. As they fell through the whole depth of our atmosphere, this would naturally be the case. The noise appears to have been heard at Tutacorin, forty miles distant. At this place sixteen miles north, it excited considerable interest among those abroad at the time. The noise must have been great, occasioned by their great velocity. Taking their specific gravity into the account, say 3·3, their size being about that of large cannon balls, some allowance also being made for their irregular shape, from the depth they penetrated the soil, which was of about common hardness, those who have observed the power of projectiles in such cases, will be able to calculate, approximately, what that velocity was.

He mentions that there was nothing peculiar in the state of the atmosphere, It was a clear day. The noise made as they came through the air made a deep impression on the mind of the people in that region, and was heard, as was reported, along the sea shore up to Teruchooly. They fell about three miles apart from each other. The smaller one weighs about 37 pounds and sunk in the earth, when it fell, two feet and eight inches. The larger one is from three to four times as large, and sunk in the earth two feet and four inches. It struck the earth flatwise. The smaller one fell about perpendicularly. The larger fell (coming from the North a little to the West,) making an angle, with a perpendicular line, of about fifteen degrees. Persons were standing near each place where they fell. Many worshipped them. The villagers gave them up to him, on condition that he should inform you, and save them from trouble (or rather which they feared some officials might make.) Dr. Buist mentions that a remarkable ærolite fell at the village of Manigaon, near Eidulabad, in Khandesh.—See Capt. J. Abbott, in Bl. As. Trans. 1844, Vol. XIII, p. 880—See also account of one which fell at Rajahmundry in Mad. Lit. Trans. Vol. XIII, p. 164, and Dr. Buist's list of Bom Geo. Trans. 1850. Vol. IX, and Professor Powell's Report, Brit. Ass. 1847 & 1852.—*Dr. Buist's Cat. Madras Museum Records. Mysore Museum Records. Vienna Museum List.*

ÆRUA LANATA. *Juss.*

Achyranthes lanata. *Linn. Roxb.*
,, villosa, *Forsk.*
Illecebrum lanatum, *Linn.*

Chaya	Beng.	Sirru pulai ...	Tam.
Khul	Duk.	Pindi konda...	Tel.
Sherubala. ...	Maleal.	Pindi donda ...	,,
Kampule kiray	Tam.		

This is a common weed growing everywhere; it has woolly, silvery looking leaves, and oval heads of white flowers. Its leaves mixed with others are used as greens, and its roots as a demulcent in Native medicine.—*Jaffrey. Useful Plants. Voigt.* Wight also figures Æ. brachiata, 1776; floribunda, 1776; Javanica, 876; Mousoniæ, 725; and scandens, 724. See Vegetables of Southern India.

ÆSCHYNANTHUS, a genus of epiphytical plants. The name was given from Aischuno to be ashamed, and Anthos a flower.

ÆSCHYNANTHUS GRANDIFLORUS.

Don's Syst. 4. 656.
Incarvillea parasitica. *Rox. Fl.* 3. *p.* 112.
Trichospermum grandiflorum. *Don.* in *Ed. Phil. Journ.*

A parasitic plant with crimson yellow flowers: in shape and size like those of Digitalis purpurea. Stem succulent, smooth; with swelled joints from which fibrous roots issue. Found on trees in S. Concan.

ÆSCHYNANTHUS *Species ?* differs from the last, in the flowers being solitary and much smaller. On trees in Southern Mahratta Country. Probably a new species. See Incarvillea : Trichospermum.

ÆSCHYNOMENE. *Linn.* A genus of the natural order Leguminosæ from which several plants have been separated to other genera and species also re-allotted.

Æ. aquatica. *Roxb.* Syn. of Æ. aspera.
Æ. coccinea. *Linn.* Syn. of Agati grandiflora.
Æ. grandiflora. *Roxb.* Syn. of Agati grandiflora.
Æ. cannabina. See Sesbania aculeata. See also Dhanchi.
Æ. indica. *Burm.* Syn. of Sesbania Ægyptiaca. PERS.
Æ. indica. *Wall.* Syn. of Æ. aspera.
Æ. lagenaria. *Lour.* Syn. of Æ aspera.
Æ. suyminta. *Roxb.* E. I. M. Syn. of Sesbania Ægyptiaca. *Pers.*
Æ. triflora. *Poir.* Syn. of Desmodium triflorum.
Æ. sesban *Linn.* Syn. of SesbaniaÆgyptiaca.

ÆSCHYNOMENE ASPERA.

Æsonynomene paludosa. *Roxb.*

Shola also Sola	...HIND.	Pouk ..	...BURM.
Phool-sola	...BENG.	Attukedasa	.. MAL.
Kath Sola...	... „	Attoonettee	... TAM.

The pith, known as *shola*, is used for light hats ; bottle covers, and ornaments ; many of the last sent to the Paris Exhibition of 1857, presented the appearance, at a little distance, of ivory carvings. Mr. Jaffrey under the Tamil name of *Sudday-keeray*, describes it as a herbaceous perennial, the leaflets of which are used as greens. It springs up spontaneously in the Burmah rice-fields, especially in the Tharawaddy district, and affords an excellent hemp.—*Madras Exh. Jur. Report of* 1855. *O'Shaughnessy, page* 295. *Roxb. McClelland.* See Carving : Vegetables.

ÆTHER. See Osiris. Sati.

ÆTHIOPIA. "the country or land of the sun ;" from *Aët*, contraction of *Aditya*. Ægypt may have the same etymology, *Aëtia*. See Semitic races. Aditya. India.

ÆTILES. Stones worshipped as sacred objects. See Salagrama. Aerolites.

AFA, also **AFI.** ARAB. A poisonous serpent.

AFGHAN. A name applied in Europe to the various peoples in Afghanistan. They are mahomedans, having been converted to this creed within half a century from the first promulgation of that religion, but they are not one people and they have scarcely ever, for any lengthened period, rendered a common obedience to one ruler. In the territories known as Afghanistan are four principal towns, Kabul, Ghizni, Kandahar and Herat, and the prevailing language is Pushtu or Pukhtu ; but the routes of the great race migrations and of the large armies under Alexander and his successors, under Timour, Baber and Nadir Shah, were through these countries, and these races and conquerors all left remnants and colonies behind them, who have never up to the present day amalgamated, and parts of whose languages remain distinct. Though no mention is made of Kabul, Alexander in his advance to the Indus must have passed close to the site of the present city. Even in his time, the countries through which, after crossing the Indus at Attock, he passed southward to the delta of the Indus, were inhabited by numerous small nations and tribes. We read of the Malli, the people of the Multan of to-day ;—the Oxydracæ, the people of Outch ; the Cathei, the Katheri of Diodorus Siculus,—the present Khetri tribe. As soon as he had crossed over to Taxilas, on the east side, Ambisacies, king of the Indian mountaineers, whom Rennell supposes to be ancestors of the Ghickers, sent ambassadors with presents to him. From the conflux of the Ascesines with the Indus, Alexander passed through the countries of the Sogdi, Musicani, Oxycani, Sindomanni and Patalans, and seems to have encountered the nomade races in Baluchistan. This variety of tribes and nations has been a feature of those regions from the most ancient time. Several of their races are alluded to in the Mudra Rakshasa, or Signet of the Minister, an ancient political drama in sancrit by Visakhadatta, perhaps of the 12th century, in which the events relate to the history of Chandragupta, the Sandracottus of the Greeks. In the tale, Rakshasa was the minister of Nanda and afterwards of Chandragupta. And in the scene, where Viradha Gupta visits Rakshasa he is asked,

Rak.—What news from Pashpapur.
Vir.—I have not much to tell Sir :
Where shall I commence.
Rak.—With Chandragupta's entry in the city.
Whatever my agents since have done, inform me.
Vir.—You will remember, Sir, when in close league
United by Chanakya, Parvateswara
And Chandragupta in alliance, led
Their force against the city,—a wild multitude
Of Sakas, Yavanas and mountaineers
The fierce Kambojas, with the tribes who dwell
Beyond the western streams and Persian hosts
Poured on us like a deluge.

These Sakas of the hindus cannot be other than the Sacæ or Sakai of classical geography. They are frequently named in various works and seem to have been known on the borders of India or in its western districts in the first century preceding Christianity. Vikramaditya, King of Ougein, being known as the Sakari or enemy of the Sacæ, his era dates B. C. 56, and it would appear that about this date, some northern tribes had settled themselves along the Indus, constituting the Indo-Scythi of Arrian. Their attempt to penetrate further to the east, by way of Kandesh and Malwa, was not improbably arrested by Vikramaditya, whence the epithet Sakari. The Sacæ are supposed by Professor Lassen to be the Szu Tartars who were expelled about 150 B. C. from the Ili valley by the Yuetchi or White Huns whom he supposes to be the Tochari. After occupying Tahia or Sogdiana for a time, they are further stated by the Chinese to have been driven thence also by the Yengars some years afterwards, and to have established themselves in Kipen, in which name Lassen recognises the Kophen valley in Kohistan. The term Yavanas, in the same poem, is in modern times applied by hindus of Northern India to mahomedans of every description, but in the above quotation and in works prior to the mahomedan era, some other people must have been intended. The interpretation of the word by Sir W. Jones, is Ionians or Asiatic Greeks, and there are some considerations in its favour, although the chief argument in its behalf is the difficulty of attaching it to any other people. The mountaineers, or Kiratas of the quotation may have come from any part of India. They are known in classical geography as the Cirrhadæ or the Cirrodes, the latter in Sogdiana, near the Oxus. The Kambojas are the people of the Arachosia, or north eastern province of Persia. The site of the Bahikas, as they are termed in the text, is explained in the Mahabarat, and the Parasikas speak for themselves.

The name Afghan by which the tribes are at present known does not however give any aid in tracing their origin. Its meaning and derivation, are both quite undetermined. According to one supposition it is the Arabic plural of the word *feghan*, which is said to have been applied to them about the time of Sultan Abu Said of the race of Jengis Khan, because of their constantly disunited state among themselves; and there is in Hyderabad a great body of these people's descendants, who usually recognise this as the derivation of the word. The primitive tribe of the Afghans, was called a Taifah, a word which corresponds with that of nation. The first division of this primitive tribe are called Farqah, tribe; and the sub-divisions of this, tirah or branches.—Some of the Afghans have asserted that they are remnants of one of the Hebrew tribes, and in this view, they do not object to the designation of Ban-i-Israil, which of course does not include the Yahudi or Jew, and Count Bjornsterna (p. 233-234) states, that they affirm that Nebuchadnezzar after the destruction of the temple of Jerusalem, removed them to Bamean, and that their present name came from their leader Afghana, who was son of the uncle of Asaf (Solomon's wazir,) who was the son of Berkin. Mr. Masson, however, (Journeys, Vol. I. p. xii-xv.) explains that the introduction of the mahomedan faith, with the legends and traditions of that religion, has induced all the Afghans to pretend to a descent from the Jewish patriarchs and kings,—a pedigree, however, which Mr. Masson regards as only due to their vanity, and which does not require to be too seriously examined. In another sense, they affirm that they are all Ban-i-Israel, or children of Israel, which merely means that they are not heathens; for they affirm Christians, although not acknowledging their prophet, and Shias, whom they revile as heretics, to be, equally with themselves, Ban-i-Israel, although they exclude Hindus, Chinese, and all idolaters.—He says at another place, that the term Afghan is acknowledged by a multitude of tribes speaking the same dialect, —the Pushtoo or Afghani, but that the term itself has no known signification, and is manifestly borne by many people of very different origin, though the people are said to call themselves Pushtoon. General Kennedy observes that all arguments on the claim of the Afghans to Hebrew descent may be dispensed with in consideration of their real history. Our most eminent modern oriental, Mountstuart Elphinstone and the late Mr. T. M. Dickinson (Journal of the Asiatic Society, Vol. IV. p. 246.) reject it; and in Lieutenant Leech's valuable vocabulary of the languages west of the Indus (Proceedings of the Bombay Geographical Society for 1838), he states that the Afghans were "originally a Turkish or Moghul nation, but that, at present, they are a mixed race, consisting of the inhabitants of Ghaur, the Turkish tribe of Khilji, and the Perso-Indian tribes dwelling between the eastern branches of the Hindu Kush and the upper parts of the Indus." Respecting the tribe of Joseph, the Eusufzye, noticed among them, we are expressly informed that they have been settled only about 300 years on the upper parts of the Indus, having been originally emigrants from the country of the Baluches, about Kelat-i-Nassir. (Kennedy's Ethnological Essays, p. 7.) In India, these people and their descendants have always been known as Pathan (Butan ?) and they themselves invariably assume the honorific designation of Khan. Some of them are known also in India, as Rohilla. Recent travellers, Burnes, Masson, and Ferrier, met with tribes who claim a Grecian descent. According to Burnes, the Mir of Badakhshan, the chief of Darwaz in the valley of the Oxus, and the chiefs eastward of Darwaz who occupy the provinces of Kulab, Shughnan, and Wakhan, north of the Oxus; also the hill states of Chitral, Gilgit and Iskardo, are all held by chiefs who claim a Grecian descent. The whole of the princes who claim descent from Alexander are Tajiks;

who inhabited the country before it was overrun by Turki or Tartar tribes. The Tajiks, now Mahomedans, regard Alexander as a prophet. The Badakshan family are fair but present nothing in form or feature resembling the Greek. They are not unlike the modern Persian, and there is a decided contrast between them and the Turk and Uzbek.

On this point however General Ferrier (*Journey, p. p.* 162-3) mentions that on reaching Gazergah he was much surprised to find there a small encampment of persons in the dress of Uzbeks, but whose configuration of features clearly indicated quite another origin. In conversations with them they stated that they were the descendants of the Yunanes (Greeks) whom Alexander the Great, Iskander Roomi, had left in these countries; and when he heard this he recollected that Marco Polo, and after him Burnes, as well as other writers on oriental history, mentioned the existence of Macedonian tribes which had settled on the north-west frontier of Chinese Tartary. He wished to convince myself that they had not been led into error on this subject; and, from the replies he received to the numerous questions he put to these people, he was convinced of the existence of the real descendants of the ancient Greeks in those countries. These Yunanes are not isolated and dispersed here and there but are united in tribes, occupying a considerable tract of country; nothing, however, either in their language or their habits, betrays their origin. They are mussulmans, and have the reputation of being somewhat fanatical, and are not held in much consideration by the Tartars, amongst whom they are settled, but they are respected, for, like their ancestors, they are brave, and the consequences of their hatred are terrible to those who are the object of it. Burnes, while admitting the existence of the descendants of these Greeks in Central Asia, appears to doubt whether some of their chiefs are, as they affirm, the descendants of Alexander, for the historians of the son of Philip assure us that he left no heir to reap the fruits of his immense conquests.

Alexander built a city in his route eastwards towards the Indus to which he gave his own name, but the name it now bears and its particular site have been lost. It was called Alexandria near the Caucasus, and Rennel points to Bamian as the quarter in which he would place it. General Ferrier, however, mentions that the fortified town of Herat, is supposed to have been founded by Alexander the Great, but he does not quote his authority. This city, he tells us, is a quadrangle of 3½ miles long on the north and south sides, and rather more on the east and west. Its extent would be immense if all the suburbs were included, particularly those stretching to the west of the town beyond the Darwazah-i-Irak. After the death of Alexander the Great, Persia as well as Syria, fell to the lot of Seleucus Nicator, who established the dynasty of the Seleucidæ. Antiochus Soter succeeded Seleucus Nicator, and in the reign of his successor, Antiochus Theos, Arsaces, a Scythian, who came from the north of the Sea of Azoff, induced the Persians to throw off the Greek yoke, founded the Parthian empire, and made Rhages his capital. This was likewise the period of the foundation of the Bactrian kingdom by Theodotus, the governor of it, who finding himself cut off from Syria by the Persian revolution, declared his independence. Arsaces is called Aateh by Eastern writers, and is said to have been a descendant of the ancient Persian kings. When he gained the kingdom, it is said he promised to exact no tribute and merely to consider himself as the head of a confederacy of princes, united for the double object of maintaining their independence and freeing Persia from a foreign yoke. This is the commencement of that era of Persian history called by Eastern writers, Malook-ul-Tuaif, or common-wealth of tribes. In A. D. 906, Rhages was taken by Ismail, founder of the Samanee dynasty. It ceased now to be a seat of empire, and in A. D. 967, became the capital of the house of Shemgur, a race of petty princes who maintained a kind of independence, while the dynasties of Saman and Dilemee divided the empire of Persia. In A. D. 1027, Rhages was the last conquest of Mahmood of Ghuzni. (*Smith's Dic. Malcolm's Hist. of Persia, quoted in Ferriers Journeys, p.* 55.) The history of the lands adjacent to Kabul during the centuries immediately preceding and following the present era, is but little indicated in books, but has been, to a considerable extent, traced out by several learned men, Mr. James Prinsep, Mr. H. T. Prinsep, Professors Wilson and Lassen from coins of Greek, Arian, Bactrian, Scythian, Partho-Scythian, Ario-Parthian & Indo-Scythian kings and dynasties, which the researches of Sir Alexander Burnes, Mr. Masson, Generals Court and Ventura had brought to light, as also from the engravings on rocks and on relics found in topes in all the regions around Kabul. The characters in which these legends are engraved are Arian or Bactrian, Greek, and Sanscrit. On coins, these are sometimes single, but many dynasties adopted bi-lingual legends, Arian and Greek, or Greek and Sanscrit, the Greek becoming gradually more barbarous towards the present era, until at length, it became unintelligible. Mr. Prinsep considers it as established that the Arian or Bactrian language was long the vernacular of the Paropamisan range, of Kabul, and perhaps of Herat and Kandahar, up to the Indus, for it has been found in the topes of Manikhyala in the Panjab and on the rock at Bamian. Unlike the Greek and Sanscrit, it is written like the Semitic tongues from right to left but the letters being always separate, they could at pleasure be written from right to left, and the customs of ancient races, on this point, were various. The earliest Greek was written alternately, as a plough is drawn, and tombs of Tuscan kings opened some years since, contain inscriptions in Greek characters, written from right to left. The Mongolians who adopted the Syrian characters write it in lines downwards like the Chinese. The Arian character was adopted first on the coins of the Greek kings from Eucratides down to Hermæus. It was then taken up by the Scythians, who crossed the Paropamisus, Imaus or Hindu Kush, and also by Parthians who asserted their independence in Afghanistan. The Arian alphabet character, in the course of years, seems to have undergone a change, and the same forms are not to be recognised in later coins, nor the same epithets and titles, and the inscriptions discovered in topes are all in the less simple though later character. Mr. James Prinsep, Mr. H. T. Prinsep and Professor Wilson have considered this Arian language to have a close affinity with Sanscrit, but Dr. Moore has recently put forth that it is Hebrew. It seems to have superseded the ancient Sanscrit of the days of Asoka, which was adopted by Agathocles and Pantaleon, the first of whom we know, from the pure Greek style of his other coins, to have been one of the earliest of the Grecian kings. After them, however, Sanscrit characters were entirely disused. Menander, the known Indian conqueror, never seems to have coined with the language of Asoka, from which circumstance Mr. H. T. Prinsep infers that the characters on the coins of Agathocles and Pantaleon were not vernacular, but had been introduced by the Indian sovereigns, who, following the first Chandra Gupta, retained dominion over the provinces ceded by the first Seleucus, until they were restored by Asoka to the Great Antiochus. At Manikbyala, where there is a tope solidly built of quarried stones and lime cement,—a great cupola, 80 feet high and 310 to 320 feet in circumference was opened by General Ventura, but there are fifteen other and smaller cupolas there, which were opened by General Court. Monuments of the same kind are met with at Rawal pindi (in the Panjab) in the Hazara country west of Kabul, at Jelalabad, Lagman, Kabul, Bamean and in the Khyber Pass. Many of those west of Kabul were opened by Mr. Masson. In one, N. N. E. of the village which was opened by General Court, a sculptured stone was found, in Arian characters, along with Roman coins and coins of Kadphises and Kanerkes, a fact alone sufficient to indicate that the territories around had been under the sway of rulers of varied races. Among the earliest of these were the successors of Alexander the Great. Alexander's death occurred in the spring of the year 323 B. C. His empire, though only of ten years growth, was not transient. His colonies and their institutions, manners and language had a lasting action in central Asia, the effects of which were felt for at least five hundred years after his decease. Though he left his brother Aridæus and the posthumous child of Rashana or Roxana, called Alexander, neither of these succeeded him, for his military commandants assumed sovereign power, and in B. C. 315, Antigonus assumed the regal title of king of Asia.

In B. C. 305, Seleucus gained a great victory over Nicanor, a lieutenant of Antigonus, and followed it up by seizing and adding to his own government, the whole of Media, Hyrcania, Parthia, Bactria, and Aria, and all the countries as far as the Indus. In 303, he crossed that river to make war on Chandra Gupta, who, during these contentions, had expelled the Grecian garrisons from the Panjab, and so had recovered that country for the native sovereigns of India. Seleucus being called to a final struggle with Antigonus, made a hasty peace with Chandra Gupta, ceding the Panjab as far as the Indus. According to Strabo, Arachotia was also ceded, but this seems doubtful. Kuchchee to the Bolan Pass with the valley of the Indus may have been the region ceded. Seleucus drove Antigonus into Phrygia, where he was defeated and slain in 301 B. C. Seleucus Nicator was assassinated in 280 B. C. by Ptolemy Ceraunus, from which date the whole of Asia to the Indus and Jaxartes was under the Syrian king Antiochus Soter, who from 280 to 261 B. C. reigned undisturbed over the same territory, and left it to his son Antiochus Theos.

In 256 or 255 B. C., Bactria declared for independance under Theodotus or Deodotus. Parthia followed about the year 250 B. C. under the rule of Arsaces, who is variously described as a native of Soghd, as a Bactrian, and by Moses of Chorene, as of Balkh, this last author adding that the dynasty was known as Balkhavenses or Pahlavian. He used Greek only on his coins and in his public letters and correspondence. His coinage is ordinarily with the head of the sovereign on one side and only one coin has a lingual inscription. Great king of kings was a title first adopted by Mithridates II.

Arsaces I, B. C. 254-250, the first of the Arsacidan kings, a native of Balkh, revolted under Antiochus Theos, is supposed to have been killed in action with Ariarathes of Cappidocia, but the date and circumstances not known.

Arsaces II, (Artabanus ?) son of Arsaces I, about B. C. 220, at first extended the Parthian empire but was afterwards driven into Hyrcania by Antiochus Magnus in B. C. 212; allying himself with the Scythians he recovered Parthia.

Arsaces III, B. C. 196, called Priapatius or Phriadavius, son of Arsaces II reigned 15 years, left three sons, Phrahates, Mithridates and Artabanus.

Arsaces Mithridates I, B. C. 177, made Balkh his capital, subdued Media and Persia and captured Babylon, brought under his dominion Western Bactria, Aria, Seestan, and Arachosia and made a successful expedition into India.

Arsaces Phrahates II, B. C. 139. In his reign Bactria seems to have been subjugated entirely by Scythians. He was defeated and slain in B. C. 130, when restraining the Parthians from ravaging the country.

Arsaces Artabanes, B. C. 126, uncle of Phrahates and youngest son of Priapatius, died of a wound received in action from the Tochari Scythians.

After many kings, the Greco-Parthian or Arsacian dynasty in Central Asia ended with Arsaces Artabanus in A. D. 215, who was involved in a war with Rome, but ultimately slain in battle at Balkh by one of his Parthian officers, Ardeshir Babakan or Artaxerxes, who established his own, that of the Sassanians, in A. D. 235. It lasted nearly 500 years. The capital in the time of the Cæsars was at Selucia on the Tigris. The system of Government was Asiatic, by Satraps, or rulers possessing full power over the persons and properties of all the subjects of the State.

The history of the country of the Kophones river, *i. e.* Bactria, Aria and Kabul, is different.

Many of the coins have bilingual inscriptions the one Greek, on the obverse, some of excellent workmanship often of very barbarous forms, the other, on the reverse, in that called Arian, Arianian, Bactrian and Kabulian. According to the prevalent authority, of Lassen, James Prinsep, Professor Wilson and others, this language is said to be Sanscrit, but Doctor Moore asserts it as Hebrew. It is written from right to left.

The first Theodotus or Diodotus B. C. 256, reigned about the same time as Arsaces I.

Theodotus II, B. C. 240, is said to have reigned in the Kabul valley.

Euthydemus, B. C. 220, reigned in the time of the expedition of Antiochus the Great, and was defeated in battle near Merv by the united Syrian and Parthian armies. He then urged Antiochus to receive him in alliance and so extend the Greek influence to the Indus. A peace was concluded, and Euthydemus led the Syrian Army through Bactria, *i. e.* by the route N. of the mountains to the Kabul valley and across the Indus in B. C. 206. There, Antiochus made peace with Sophagasenus (Asoka), which that sovereign recorded by edicts on rocks and pillars in various parts of India, in characters exactly resembling those on the coins of Agathocles. In B. C. 205, Antiochus returned by way of Arachotia. The translation of the edicts of Asoka, is in the Asiatic Society's Journal for 1838, and that on the Girnar rock names Antiochus (Antiochia Yona Raja).

Eukratides, B. C. 178; (Prinsep B. C. 181, Bayer, Wilson B. C. 165, Visconti: B. C., Lassen 175). He seems to have made an expedition to India in 165 B. C., and on his return from it, to have been murdered by his son. Numerous of his coins have been found in Bactria and Afghanistan and Mr. H. T. Prinsep considers that he ruled originally in Bactria, subsequently made conquests in and south of Parapamisus in Kabul and, first of all the Greeks, coined in the bilingual Arian inscription. The first use of two languages however, is also ascribed to Agathocles, who used Greek and Sanscrit while Eukratides used Greek and Arian. Eukratides was certainly, amongst the earliest of the Greek kings of Bactria, Kabul and Aria, who adopted bilingual inscriptions on his coins, and his so doing is supposed consequent on his conquest of the Parapamisus, after assumption of the title of Great King. On his death, his wide dominion is supposed to have been broken into several independent kingdoms.

Heliocles, B. C. 155, the parricide of Eukratides, used bilingual inscriptions on coins in pure Greek and Arian. His rule though short, extended over Bactria and the Paropamisus.

Antimachus, B. C. 150 coined with Greek and Arian.

Agathocles, B. C. 190, coined with Greek and Sanscrit, is supposed by Lassen to have ruled Kabulistan to the Indus, and Mr. H. T. Prinsep supposes him to have been the Governor left by Antiochus in Kabul, after his treaty with Asoka.

Pantaleon, B. C. 195, coined in Greek and Sanscrit.

Professor Lassen supposes four Greek kingdoms, viz., that of Bactria. One eastern, under Menander and Apollodotus, comprehending the Punjab and valley of the Indus, with Kabul, and Arachotia or Kandahar added in times of its prosperity. Another western, at Herat and in Seestan. A fourth central of the Paropamisus, which latter region, Mr. Prinsep is inclined to give to Bactria, because of the bilingual as well as the pure Greek coins of Heliocles and Antimachus, Kings of Bactria.

Of all the kings who followed Eukratides, Menander and Apollodotus alone are mentioned by classical authorities.

The Scythian kings, followed the Greek kings, in adopting their forms of money. They coined similar pieces with superscriptions similar, and in the same languages, but inscribed on them their own names and titles, and varied the emblems and devices.

Maues, B. C. 135, is supposed to have been a Scythian, the head of one of the tribes that broke into Bactria between 150 to 140 B C, and he seems to have held communication with Azes. On the obverse, his coin contains the king with a trident, a Tartar war weapon, setting his foot on a prostrate enemy.

Azes, B. C. 130. The greatest of Scythian kings, on whose coins are bilingual inscriptions, with plain, distinct Greek characters ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΥ ΑΖΟΥ. In Arian, Maharajasa Raja Rajasa Madatasa Ayasa. The figures on the coins are various. Professor Wilson thinks he was an Indian Buddhist king, about 50 B. C. Professor Lassen regards him as a Sacian Scythian, who conquered the Kabul valley in the time of the second Mithridates, and finally destroyed the kingdom of Menander and Hermæus in about 120 B. C. He considers he was succeeded by Azilises.

Azilises, B. C. 115, reigned with the same titles as Azes. On one coin, the name of Azes is on the Greek obverse, and that of Azilises on the Bactrian reverse.

Vonones, B. C. 100, called Balahara, supposed to have been a Parthian Satrap who asserted independence, and created a kingdom for himself out of the dominions of Azilises.

Spalirisus, B. C. 85, sometimes read Ipalirisus, supposed a Parthian king.

Spalypius, B. C. 75, had many coins in two languages, he was a vice regent, son of Vonones and perhaps brother of Spalirisus. About this time, as indicated by his coins, was a ruler, whose name is not known,—

Soter Megas, B. C. 70, the nameless Great Soter King, had coins with an Arian legend which James Prinsep and Professor Lassen ascribed to Azes. On all is a peculiar monogram with three prongs. The same monogram was continued in coins of Kadphises and of the Hercules type derived from Hermæus. Mr. H. T. Prinsep considers him to have been contemporary, but not identified, with Vikramaditya and that he assumed the title of Soter Megas, which was continued down by the Kadphises kings. He considers that the nameless kings, with titles on whose coins are the words Kodes or Hyrkodes, although mere local chiefs such as now rule at Kulm, Kunduz, and Balkh, preceded the conquest of the Panjab by Vikramaditya, B. C. 56.

Vikramaditya. About this great king, India affords nothing but fables, but a passage of the Periplus mentions that his capital was Ozene (Ujein) and it is known that he extended his empire to Kabul about B. C. 56. This dominion in the Kabul valley must have been temporary; his empire fell to pieces after his death, and nearly a century elapsed before Chandra Sena restored the sovereignty of Hindustan in its unity.

The Kadaphes or Kadphises dynasty consisted of three rulers, who ruled in Kabul, from the downfall of the kingdom of Vikramaditya. Kadphises' name is on the Arian reverse of the Hermæus coins of Hercules type. There is no indication of a settled worship. The Hercules worship was readily borrowed from the Greeks by the wild Scythians, as a mere reverence of physical strength. The Kohistan is supposed to be the district of the first rise of Kadphises, while Kabul and its valley were subject to Indian rule; and while there, the chief seems to have retained his Scythian title and rude worship of Hercules. Afterwards, overpowering the Indian governors who had followed Vikramaditya into the Kabul valley and Panjab, he or his descendants seem to have adopted the Hindu religion, coining with Greek, and dropped their Scythian title. In a gold coinage by Kadphises king, Siva occurs in the mixed male and female character, and very general accompanied by the bull Nandi. Professor Lassen discovered in Chinese history, that Khi-out-chiu-hi Kui-tsi-kio, a Yuchi or Yeutchi or white Hun, conquered the Szus or Azes Scythians in about 40 B. C. and dying at the advanced age of 84 years, his son Yen-kao-Ching prosecuted his career of victory and reduced the Indus valley and Panjab to subjection in about 20 B. C. The names are scarcely recognizable, but the facts and period correspond to the career and supposed era of the Kadphises kings.

Korosoko Kosoulo Kadphises, B. C. 50 in Arian Dhama + + rata Kujula kasa Sabashakha Kadaphasa. His coins are of the Hercules and Hermæus type.

Zathos Kadaphes Khoranos, B. C. 20. On the reverse of the coins is a sitting figure, with the arm extended, and wearing a loose flowing Indian dress. They have monograms the same as the Azes coins. The Siva worship had not yet been established as the State religion.

Vohemo Kadphises, B. C. 5. His copper coins have the king standing in a Tartar dress, with coat, boots and cap, his right hand pointing downwards to an altar or pile of loaves, and having a trident separate on one side and a club on the other. The reverse has the Siva Nandi bull.

The readings of the Arian inscriptions on coins of the Kadphises kings, by Lassen, James

Prinsep and Wilson, are somewhat different, and it is suggested that the words Koroso Kosoulo, Koranos and Zathos, were titles short of royalty. Professors Lassen and Wilson carry the dynasty of Kadphises through the whole of the first century of the present era, and consider it to have been then overpowered by a fresh swarm of Scythians under the Kanerki kings. Mr. H. T. Prinsep supposes that during the ascendency of the Kadphises kings, the Græco-Parthian party still held out in cities and communities, abiding their time to re-assert their independence and rose again about the middle of the first century of our era; amongst these, coins show

Undopherres, A. D. 40, calling himself King of Kings in Greek, and in Arian, Maharajasa Raja Rajasa, Tradatasa, Mahatasa Pharahitasa.

Gondopherres or Gondophares, B. C. 55, who took the same Arian name of Pharahitasa.

Abagasus, King of Kings. A. D. 70, in Arian Abakhafasa. Professor Lassen supposes this name to be identical with Vologeses. Mr. H T. Prinsep supposes these coins to be of Parthians, who established for themselves a separate and independent sovereignty in Kabul and the Parapamisus

Abalgasius, A. D. 80, Captain Cunningham ascribed the Arian legend on the coins to be of "the Saviour king Abagasus, younger son of Undopherres."

Kanerki dynasty. At the close of the first century of our era, when the above Ario-Parthian supposed dynasty ceased to reign in Kabul and the Panjab, a new race of Scythian kings appeared, who issued gold and copper money of quite a different device and style from anything before current. These bear a title of Kanerkes, at first with the title of Basileus Basileon, but afterwards with the Indian title of Rao Nano Rao. The number and variety of the Kanerki coins indicate a long dominion for kings of the race. The only characters on their coins are Greek, but these become at last so corrupt as to be quite illegible. On their obverse is the king standing, or in bust to the waist, in a Tartar or Indian dress, with the name and titles in a Greek legend round: while on the reverse are Mithraic representations of the sun or moon with ΗΛΙΟΣ, ΝΑΝΑΙΑ, ΟΚΡΟ, ΜΙΟΡΟ, ΜΑΟ, ΑΘΡΟ, or some other mystical name of these luminaries, also in Greek letters. And on all the Kanerki coins, is the same monogram as the Kadphises dynasty used, and which was borrowed apparently from the nameless Soter Megas. This would seem to indicate that the Kanerki dynasty, though interrupted as Mr. Prinsep supposes by the intervention of Ario-Parthians, was yet a continuation of the same tribe and nation as its predecessors of the name of Kadphises.

The state religion seems to have been Mithraic, whence derived, not known; but on their coins, the Siva bull device is also found on the reverse, the bull's head being to the left, —in the coins of the Kadphises being to the right. A list of their kings cannot be framed, but their power seems to have lasted for more than two centuries. The style and device, of the Greek, of the gold coins especially, of the coins both of Kadphises and the Kanerkis, was carried on till it grew more and more corrupt, and was at last, entirely lost, through the deterioration of art, under the princes of Hindu race, who succeeded to the more energetic Greeks and Scythians.—*(On the Historical results deducible from recent Discoveries in Afghanistan by H. T. Prinsep, Esq.)*

Of all these conquerors, only the routes of Alexander, Timur and Nadir Shah, have their particulars on record.

After the death of Alexander, his Lieutenant, Seleucus, succeeded to the sovereignty of Afghanistan and the other Asiatic conquests. Under his grandson, Afghanistan was taken from the Seleucidæ, by the aboriginal chiefs, and soon after, formed with Bactria an independent State which existed during 150 years. Subsequently, the Tartars made themselves masters of Afghanistan and appear to have held possession of it up to the death of Mansoor, when one of his officers, Sabaqtagin, established an independent dominion over all the southern parts of Afghanistan, making Ghizni his capital His son Mahmood, who died A D. 1028. enriched Afghanistan, with the spoils of India. In the reign of the cruel Bahram, one of the Tartar's descendants, the Sabaqtagin dynasty were deprived of all but the Punjab, and this too, in A. D 1160, they lost.

Timur in his route from Kabul towards Hindoostan, according to Sherif-ud-din, went by way of Irjal, Shenuzan, Nughz, Banou, (or Bunnoo), and thence to the Indus, at the very place where Jelal-ud-din, king of Kharazm fought with Jengis Khan and so heroically swam the river after his defeat in 1221. It must not be omitted, that Timur crossed an extensive desert in his way to Batnir. In his return from the banks of the Ganges, he proceeded to the north-west, along the foot of the Sewalik mountains, by Meliapur, Jallindhar, and Jummoo, to the Indus, which he crossed at the same place as before, and in the same manner; and returned to Samarcand by way of Bunnoo, or Banou, Nughz or Nagaz, Kabul, Bacalan, and Termed.—*(Rennell's Memoir, pages* 112 *to* 121.*)*

Afghanistan, at the death of Timoor comprehended the principalities of Cashmir, Lahore, Peshwur, Kabul, Bulkh, Khulm, Kandahar, Multan, and Herat; those of Kelat and Beluchistan as well as Persian Khorassan, acknowledged her as suzerain. Sind also, though not having paid for five years the tribute agreed upon by Mir Fathah Khan, chief of the Talpoora, was nevertheless classed as amongst the number of her dependencies.

Nadir Shah's route into India was the ordinary one, by Attock and Lahore, and he returned, as appears by Abdul Karim and M. Otter, by nearly the same route; save that instead of crossing the Indus at Attock, he went higher up, and passed the borders of Sewad, in his way to Jalalabad and Kabul.

"The boundaries of Afghanistan have fluctuated with the vicissitudes of war from the middle of the tenth century. At the date of the recent invasion of the country by the British, the kingdom consisted of four subdivisions, Cabul, the Huzara country, Candahar, and Herat. Taken in this extent, Afghanistan is bordered on the north by Bokhara, Kunduz, and Kaferistan; on the east by the British province of Peshawur and the Soliman range of mountains; on the south by Beloochistan; and on the west by Persia. Its greatest length from north to south is about six hundred miles; its breadth measures about the same distance. (*Townsend's Outram and Havelock's*, p. 85.)

The British frontier line commences from the top of the Kaghan glen (a dependency of Huzara) near Chelas on the north-west corner of the Maharajah of Jummoo's territory, and then passes round the north-west boundary of Huzara, on the east side the Indus to Torbeila; then crossing that river, it winds round the north and north-west boundary of the Peshawur Valley to the Khyber Pass, then round the Afreedee Hills to Kohat; then round the western boundary of the Kohat District, along the Meeranzye Valley and touching the confines of the Cabul dominions; then round the Wuzeeree Hills to the Bunnoo one and to the head of the Sulimani range; and then, lastly, right down the base of the Sulimani range to its terminate on the upper confines of Sind and of the Khelat kingdom. The extent of this frontier is very vast, and its length is full 800 miles. It is also as arduous in its nature as it is extensive. Along the outer side of this frontier line, and therefore beyond British jurisdiction, there dwell a series of independent tribes. On the inner side of this frontier, up to the right bank of the Indus, there also dwell various tribes, in many respects resembling the first-named tribes, but who are British subjects. These latter will be adverted to, though with less prominency than the former. The topographical position of each tribe, both without and within the frontier, may be enumerated in their local order as follows:—

INDEPENDENT TRIBES.—Dwelling along the outer face of the north-west Punjab frontier and inhabiting hills, adjoining frontier of Huzara District,—Hussunzyes.

Adjoining Frontier of Peshawur District.—Judoons, Bunoorwalls, Swatees, Baneezyes, Osmankheylees, Upper Momunds.

Adjoining Frontier of Peshawur and Kohat Districts — Afreedees.

Adjoining Frontier of Kohat District.—Buzotees, Sepahs, Orukzyes, Zymoosht Affghans, Toorees.

Adjoining Frontier of Kohat and Dehra Ishmael Khan Districts.—Wuzeerees.

Adjoining Frontier of Dehra Ishmael Khan District —Shcoranees, Oshteranees, Kusranees, Bozdars.

Adjoining Frontier of Dehra Ghazee Khan District.—Khutrans, Kosahs, Lugharees, Goorchaniees, Murrees.—Boogtees.

British Tribes,—Tribes within the frontier, and British subjects, inhabiting partly hills and partly plains.

Huzara District.—Turnoulees, Gukkars, Doonds and Suttees, Kaghan Syuds and other tribes of Huzara.

Peshawar District.—Eusufzyes, Khaleels, Momunds of the plains.

Peshawar and Kohat Districts.—Khuttuks.

Kohat District.—Bungushes.

Dehra Ishmael Khan District.—Bunnoochees, Murwutees, Butanees, Chiefs of Tank, Chiefs of Kolachee, Chiefs of Dehra Ishmael Khan, Nootkanees, Loonds

Dehra Ghazee Khan District.—Dreshuks, Muzarees.

General Ferrier gives the following approximately as the amount of the population in Afghanistan.

In the Provinces of		
Herat. . .	300,000	Afghans.
"	600,000	Parsivans or Eimaks.
Kandahar..	600,000	Afghans.
"	300,000	Parsivans and Baluchi.
Kabul.	1,600,000	Afghans.
"	800,000	Parsivans and Kuzzulbashes.

Total 2,500,000 Afghans, and 1,700,000 Parsivans, Eimaks, Baluchi and Kazzilbash making a General Total of 4,200,000 inhabitants.

Though the population of the Affghan States is not numerous they are all above the English standard in height, and are brave to recklessness. The races in Affghanistan, the Affghans properly so called, are at present the dominant race, and in Kandahar, Kabul and Herat, hold the Tajiks in subjection. The Tajiks are the descendants of the ancient conquerors of the country, and may be subdivided into the Parsivans or inhabitants of towns, speaking Persian, and the Eimaks or Nomades. The Uzbeks are in numbers; the Hazaras, of Tartar, perhaps a Turkoman origin, and the Eimaks who graze their flocks in the Parapamisus, are brave and relentless, and Affghans when travelling whether proceeding from Balkh, Kabul, Kandahar or Herat, never enter into the mountain districts of these intrepid nomadic tribes. One of the Eimak tribes is known as the Feroz Kohi after the city of that name about 63 miles from Teheran. Timur exasperated at the depredations which they committed, transported the whole of them into the mountains lying between Persia and India. The races occupying Affghanistan are distinguished by marked characteristics, moral as well as physical. General Ferrier tells us that the Affghans of Kabul consider themselves as Indian Affghans, whereas those of the Herat say they are Khorassani; one tribe repudiates another, and denies its Affghan origin, and there is not the least sympathy between them. The names of Patan, Rohilla, Affghan, which serve at the present time to designate the Affghan nation, are really those of so many distinct races now confounded in one. (*General Ferrier, p.* 5.

Military strength of the States of Afghanistan.

Nations.	Principalities and Khanats.	Cavalry of each State.	Total Cavalry of each Nation.	Infantry of each State.	Total Infantry of each Nation.	General Total.
Afghan ..	Herat	8,000	41,500	10,000	31,000	72,500
	Kandahar	12,000		6,000		
	Kabul	21,000		10,000		
	Laush-Jowaine ...	500		5,000		
Uzbek ...	Khulm	8,000	18,000	3,000	8,100	26,100
	Balkh	2,500		1,000		
	Siripool	2,000		2,000		
	Akkchu	200		...		
	Andkhoo	1,800		600		
	Shibbergan	2,000		500		
	Meimana	1,500		1,300		
Thian Hazarah ...	Zeidnat	4,000	10,900	...	5,300	16,200
	Poosht-koosh ...	5,000		3,000		
	Yekenbolung	1,000		300		
	Deh Zingey	400		1,200		
	Sir-Jungel	500		800		
Eimak ...	Firoz-Kohi	3,750	4,950	6,400	16,800	21,750
	Kipchak	...		400		
	Taymooni	1,200		10,000		
		75,350	75,350	61,200	61,200	136,550

The Balooches of Seistan are not included in this statement, because they are not in Afghanistan. General Ferrier tells us that an enterprising and clever chief could in Afghanistan obtain from fifteen to eighteen thousand excellent Balooch infantry; but it would be difficult to keep so large a force under the same flag for any length of time, so long as Seistan is in their possession. In General Ferrier's time the whole of the Afghan army consisted of the three divisions of Kabul, Kandahar, and Herat; of these, the troops called Daftari, presented the following effective force :—

(*a.*) Kabul.........	15,000	Afghan Horse.
	6,000	Parsivan or Kuzilbash Horse.
	6,000	Afghan Mountaineers, Infantry.
	4,000	Parsivan, Hazarah or Usbek Infantry.
(*b.*) In Kandahar there were......	12,000	Afghan Horse.
	3,000	Afghan Infantry.
	3,000	Balooch Infantry.
(*c.*) In Herat the army consisted of............	8,000	Afghan Horse.
	4,000	Hazarah Horse.
	10,000	Parsivan Infantry.

That officer says that the reason of their success against the other Asiatic hordes up to this day has been their élan in the attack, their courage, but not any clever disposition or a knowledge of military operations. He mentions that for the theatre of combat between their armies the Afghans always select large plains, in order that their numerous cavalry, on which they place a blind reliance, may be able to deploy freely. Though they are entirely ignorant of the art of attack and defence of towns and fortresses, the Afghans are remarkable for the obstinacy of their resistance and the correctness of their aim when they are behind walls. The arms of the Afghans are the firelock, the carbine, the swivel-gun, or a pair of lead pistols; sometimes a bow, or a lance with a bamboo handle.

The languages spoken in the western border of India, between it and Afghanistan, of India adjoining Afghanistan, are dialects of Hindi, but sufficiently distinct to be called Sindi, Panjabi and Kashmiri. The late Lieut. Leech indeed has given vocabularies of seven languages spoken on the west of the Indus. The western border tribes are still mostly under patriarchal governments. In the south are the various Baluch tribes in the territories to which they give their name and whose language is said by Captain Raverty to be a mixture of Persian, Sindi, Punjabi, Hindi and Sanscrit. The Brahui tribes in Saharawan and Jholawan, whose great chief is the Khan of Kelat, ethnologists consider to be of the same Scythic stock as the Dravidian races in the south, and infer from this that the passage of Dravidian tribes from Turan was along the valley of the Indus.

Further north, in the Derajat, are warlike Baluch and Afghan tribes, the most unyielding of whom are the Waziri, who long continued to resist the efforts made by the English to restrain their inroads on the plains. Still further north and west are the numerous tribes of Afghanistan, of whom may be mentioned the powerful Durani race and the Tajik tribes. The Mongols of Kabul, Persia and Herat, called Kalmuks in Herat and Afghanistan and Eimak and Charmak in the Hazara, dwell north of Kabul and Herat. In the Bunnu valley, there are mixed races, and we may notice the Durdu in Giljit and Chulas.

According to Captain Raverty, the people who dwell about Kabul and Kandahar, Shorawak and Pishin are designated B'r-Pushtun or Upper Afghans; and those occupying the district of Rob, which is near India, are called L'r-Pukhtun or Lower Afghans. Persian is the official language of Afghanistan, but colloquially the Pushto is alike the common tongue of the uneducated people, of the families of the Sadozye Kings, and of the dwellings of the Amir. There are however two divisions of the Afghans, termed Pushtun and Pukhtun, who speak Pushto and Pukhto respectively. The Pushto being the western dialect with affinity to Persian, and the Pukhto the eastern with many Sanscrit and Hindi words. The Pushto is spoken, with slight variation in orthography and pronunciation, from the valley of Pishin, south of Kandahar, to Kafiristan on the north; and from the banks of the Helmand on the west, to the Attok, Sindhu or Indus river, on the east;—throughout the Sama or plain of the Yuzufzye's,—the mountainous districts of Bajawar, Banjhkora, Suwatt and Buner to Astor, on the borders of Little Tibet,—a tract of country equal in extent to the entire Spanish peninsula. Also, throughout the British districts of the Derajat, Banu Tak, Kohat, Peshawar and the Samah or Plain of the Yuzufzye's, with the exception of Dera Ghazikhan, nine-tenths of the people speak the Afghan language. Since the invasions of Mahmud of Ghazni, in the twelfth century, there has been a constant influx into India of Afghans, as conquerors and settlers and this has been so great from particular districts that some tribes have altogether disappeared from Afghanistan. In some localities in India, the Afghan settlers have preserved the Pushto, almost in its purity, up to the present day, having from the outset married amongst themselves. In some parts of Bandalkand and in the territory of the Nawab of Rampur, whole towns and villages may be found in which the Afghan language is still almost exclusively spoken and is the medium of general communication. Captain Raverty considers that although, on numerous points the Pushto bears a great similarity to the Semitic and Iranian languages, it is totally different in construction and idiom also from any of the Indu—Sanscrit dialects.—(*Capt. H. G. Raverty's Grammar and Dictionary to the Pushto, Pukhto, or Afghan language.*)

The Afghans, General Ferrier tells us, are tall, robust, active, and well formed; their olive and sometimes sallow complexions and strongly marked hard features give their countenances a savage expression; the lids of their black eyes, which are full of fire, are tinged with antimony, for this, in their opinion, gives force and adds beauty and a dazzling brilliancy to them; their black beard is worn short, and their hair, of the same colour, is shaved off from the front to the top of the head, the remainder at the sides being allowed to fall in large curls over the shoulders. Their step is full of resolution, their bearing proud, but rough. They are brave even to rashness, excited by the smallest trifle, enterprising without the least regard to prudence, energetic, and born for war. They are sober, abstemious, and apparently of an open disposition, great gossips, and curious to excess. Courage is with them the first of virtues, and usurps the place of all the others: "Their principle is Give or I take." Force is their only argument, and it justifies everything; an individual who is merely plundered considers himself extremely fortunate, as, generally speaking, life is also taken. There is no nation in the world more turbulent and less under subjection, and the difficulties in rendering them submissive to a code of just laws would be almost insurmountable. Afghans are as incapable of a continuous course of action as of ideas; they do every thing on the spur of the moment from a love of disorder or for no reason at all: it matters little to them who give them laws; they obey the first comer directly they find it is to their advantage to do so. Their cupidity and avarice is extreme; there is no tie they would not desert, to gratify their avidity for wealth. This surpasses all that can be imagined; it is insatiable, and to satisfy it they are capable of committing the greatest crimes. For it they will sacrifice all their native and independent pride, even prostitute the honor of their wives and daughters whom they frequently put to death after they have received the price of their dishonor. Gold in Afghanistan is, more than anywhere else, the god of the human race; it stifles the still small cry of every man's conscience, if, indeed, it can be admitted that an Afghan has a conscience at all; it is impossible to rely on their promises, their friendship, or their fidelity. They enter into engagements, and bind themselves by the most solemn oaths to respect them, only to depart from them if they see advantage in so doing.

Capt. Burton, on this point, says that the Afghans and Persians are, probably, more formidable liars than the Sindhis, both on account of superior intellect, more stubborn obstinacy, and greater daring in supporting the falsehood.—(*Richard T. Burton's Sindh, p.* 404.

Excitement, says General Ferrier the clash of arms, and the tumult of the combat are to the Afghan life; repose is for an Afghan only a transitory state of being, during which he leads a monotonous existence; the sweets of domestic life, mental quietude, the endearments of his family, have no charms for him, and a life without commotion and agitation loses all its poetry. He is only really a man when he is fighting and plundering; then his eye is full of fire. There is no shade of difference between the character of the citizen or the nomade; a town life does not soften their habits; they live there as they live in a tent, always armed to the teeth, and ready for the onslaught, devoid of a right-minded feeling, and always animated by the most ferocious instincts. Though they are full of duplicity, their greatest anxiety, is to ascertain how they can get their daily bread without having to pay for it.

This habit of living at the expense of other people forces the Afghans to practise sobriety and frugality. They throw away the lean, as they say it produces diarrhœa. The principal food of the villagers and nomades is kooroot, a kind of pudding made of boiled Indian corn, bruised between two stones: or simply bread, on which they pour rancid grease, mixed with a substance which in the East is known under the name of keehk, the settlement in whey.

They will not eat meat unless it is halal (lawful), that is, the animal must have its face turned towards Mecca, and its throat cut in a particular part of the neck, the following sacrificial words being pronounced during the operation, in accordance with their law and rule of faith—Bismillah-ur-rahman-ur rahim (In the name of the most merciful God). In eating, they mix one dish with another, knead them together with their fingers, and then place the morsel into their mouths. They make two meals, one at noon, the other at nine o'clock at night; they frequently smoke the chalam, a kind of water pipe, but very inferior to the narghilah of the Turks, or the kalian of the Persians.

The Persian language is met with all over Afghanistan; the great families speak it, and other correspondence is carried on in that tongue: the people are acquainted with it, but they prefer speaking the Pushtoo, the language of their nation, which is a mixture of ancient Persian, Arabic, and Hindostani. They have a few works in this language, but they read Persian authors by preference, and have through them formed imperfect ideas of geography, astronomy, medicine, and history; but these works, full of fictions and deficiencies, have not materially assisted in developing their faculties.

Some young chiefs have their robes ornamented with gold lace or embroidered with gold thread. This is done in the harems by the women, who excel in this kind of work, particularly in Kandahar. The ordinary people never change their garments, not even the shirt, until they are completely worn out; and as they very rarely wash themselves, they are constantly covered with vermin, great and small.

The Afghans are Sunni mahomedans with the exception of the tribe of Beritchi, who are Shiahs. The Parsivans and Eimaks, who are subject to the Afghans, profess mahomedanism. Besides the two sects just mentioned some of them are of the Ali-illahi sect.

The nomades are generally of a sickly complexion, this is to be attributed to the pernicious quality of the water, which is almost all alkaline. The diseases to which they are most subject are fevers, cutaneous and nervous disorders, and especially blindness.

They have a great dread of the Evil Eye, and they cover themselves and their domestic animals with amulets.

The munificence of the Persian, Tartar, and Indian monarchs has enriched Afghanistan with many fine buildings and works of public utility, as mosques, caravanserais, reservoirs of water.

But a person may travel whole months in their country without finding any other shelter than the tent of the nomade.

The rich use plaster; and the Kandahar people especially decorate their rooms with great taste and talent. Their houses are generally low, rarely consisting of more than one floor, and they take no precautions against the cold, which is, however, never severe at Herat or Kandahar —*Ferrier's His of* the *Afghans, p. p.* 288-296.

Nala. Masson's Journeys in Afghanistan. Kennedy's Ethnological Essays H. T. Prinsep's Historical Results on the Discoveries in Afghanistan. Townsend's Outram and Havelock. Records of the Government of India. Captain H. G. Raverty's Grammar and Dictionary. Burnes' Travels. Burtons' Scinde Burnes' Cabul. Latham's Ethnology. Bunsen's Egypt. Elphinstone's Cabul. Chesney's Euphrates Cunningham's History of the Sikhs. Vignes Personal Narrative. Par. Pap. East India Cabul and Afghanistan.

See the words, Durani · Ghar Gour. Hindu : India : Inscriptions : Iran : Jews. Kabul. Kaffir. Kalmuk. Kandahar · Karez Kattywar. Kazzlbash : Kelat : Khalsa : Khaha · Khalil : Koran · Khyber · Kirman : Koh. Kufelzye : Kurut : Mongol : Sikh : Somnath Tajik · Tope : Yuchi ·

AFI. See Afa : Serpent.

AFIAT. PERSIAN Health. In salutation, the Persians say, "*Afiyat* bashad"—"may it be health to you?" or "Nosh i jan"—"may it be a drink of life." The Arabs say "Hania, may it be good to you" the person addressed bows and returns. "May Allah be your preserver." —*Burton's Scinde, Vol. II. p. p.* 20 and 21.

AFIM. HIND. افيم Opium.

AFIS. ARAB. عفص Galls.

AFIUN. ARAB. افيون Opium.

AFRICA. Ethnologists are of opinion that Africa has had an important influence in the colonization of India and the islands in times prior to authentic history or tradition, and that the numerous races of an Africo-Turanian type found in India, the marked African features of the people in the extreme south of the Peninsula of India, the negro and negrito races of the Andamans, Nicobar, the Jakuns of the Malay Peninsula of India, and the Negrito and Negro races of the islands of the Indian Archipelago, Australia and Polynesia. Much of this needs further inquiry, but it is a subject which will reward investigators During the past four thousand years, also, historical research has shown how frequent were emigrations and conquests between Media, Arabia, Persia, Palestine and Africa. See.
India. Inscriptions. Kush. Magar. Palms. Rain Semitic races. Sidi. Somal Beer-el-Somal, Somali

AFRICAN B'DELLIUM TREE. ENG. Hedelotia Africana.

AFLATUN. ARAB. افلاطون B'dellium also Commiphora Madascarensis.

AFRASIAB, See Persian Kings.

AFREDI. Of the Khybar tribes proper there are three great divisions, the Afredi, the Shinwari, and the Orak Zye. Of these, the Afredi, in their present locality, are the most numerous; the Shinwari, more disposed to the arts of traffic and the Orak Zye, the more orderly, if amongst such people any can be so pronounced. The Afredi occupy the eastern parts of the hills, nearest Peshawar; and the Shinwari the western parts, looking upon the valley of Jelalabad. The Orak Zye reside in Tirah, intermingled with the Afredi, and some of them are found in the hills south-west of Peshawar. *It was a malek or chief of this tribe who* conducted *Nadir Shah and a force of* cavalry by the route of Chura and Tirah, to Peshawar when the principal road through the hills was defended against him. The Shinwari, besides their portion of the hills, have the lands immediately west of them, and some of the valleys of the Safed Koh range. More westerly still, under the same hill range, they are found south of Jelalabad, and are there neighbours of the Khogani. These are in the condition of unruly subjects. There are also some of them in Ghor-band, and they dwell in great numbers bordering on Bajor to the north-west, where they are indenendent, and engaged in constant hostilities with the tribes of Bajor and of Kafristan.

Tirah and Chura are said to be fertile and well peopled valleys, enjoying a cool climate, in comparison with that of Peshawar; and it was not unusual for the sirdars, and others, who had an understanding with the inhabitants, to pass the warm weather in the former of these places; which also frequently became a place of refuge to the distressed. [illegible] Chura resided Khan Bahadar Khan, [illegible] who attained eminence amongst his tribe from the circumstance of his attendance at Court during the sway of the Sadoz Zye. Shah Sujah married one of his daughters to, and on more than one occasion, found an asylum with him. The Khybari, like other rude Afghan tribes, have their maleks, or chiefs, but the authority of these is very limited; and as every individual has a voice on public affairs, it is impossible to describe the confusion that exists amongst them. Of course, unanimity is out of the question, and it generally happens that a nanawati, or deliberation on any business, terminates not by bringing it to a conclusion, but in strife amongst themselves. The portions of the Afredi and Shinwari tribes who inhabit the defiles of Khybar, through which the road leads from Peshawar to the Jelalabad valley, are but inconsiderable as to numbers, but they are extremely infamous on account of their ferocity, and their long-indulged habits of rapine. Under the Sidoz Zye princes, they received an annual allowance of twelve thousand rupees on condition of keeping the road through their country open, and abstaining from plunder. They called themselves, therefore, the servants of the king. It would appear, from every statement, that they were in those days *little scrupulous. Still, kafilas followed* their road,—so manifestly the better and nearer one,—submitting to their exactions and annoyances, and satisfied with being not wholly rifled. Their stipend being discontinued by the Barak Zye Sirdars,—to whom the attachment they evinced to Shah Sujah had rendered them very suspicious,—they threw off all restraint, and the consequence was that the Khybar road was closed to the traders of Peshawar and Kabul.

"They are, in the mass, very numerous. [illegible] is boasted that the Afredi tribe [illegible] muster forty thousand fighting men,—of course an [illegible],—or one which might be improbable to include every man, woman, and [illegible] amongst them. On various occasions, when their strength has been exhibited, from two to five thousand men have assembled.—(*Masson's Journeys, Vol. I. p. from* 162 *to* 165.)

The Afredi tribe is, doubtless, the most important of all on the Panjab frontier. Their territory, commencing in the hills between the Kabul river and the Khyber pass, forms the western boundary of the Peshawar valley; then it stretches round the south-western corner and skirts a portion of the southern boundary of the Peshawar District till it approaches the Kuttuk lands. It thus projects abruptly into the British frontier, separates the Peshawar [illegible] from that of Kohat, and forms the nor[illegible] boundary of the latter district. The [illegible] hills, intervening between the Kohat [illegible] Peshawar districts, are crossed by two principal passes, communicating from one district to the other, the best of which is the well-known Kohat pass or Gullee and the other the Jewakee pass. The frontage of the Afredi hills towards British jurisdiction extends over a total length of 80 miles, and their territory stretches far back in a westerly direction towards Cabul. Thus the Afredi hold a large geographical area and have a long border conterminous with the British. The Afredi are entirely independent. Their hills are lofty, steep and rugged, most arduous for military operations. The villages are strongly posted and difficult of access. The Afredi are fierce by nature. They are not destitute of rude virtues, but they are notoriously faithless to public engagements. They are split up into factions. The sub-divisions of this tribe are numerous. They can muster 15,000 or 20,000 fighting men. As soldiers, they are among the best on the frontier. They are good shots. Their tactics resemble those of the other tribes. They retreat before the foe as he advances and press upon him as he retires. From the size of their country, and the strength of their numbers, the Afredi, if united, might prove formidable opponents; but they rarely or never combine. If their independence were threatened, or if some peculiar opportunity offered, they might act together, otherwise they will usually be found at war with each other. And India would have to deal with one or two sections only at a time. If one be hostile, another will be friendly and *vice versâ*, consequently the tribe is not so formidable as it might at first appear.

The Afredi of the Khyber Pass, among faithless tribes, [illegible] considered the most faithless. A [illegible] of these, named the Kookee-kheyl, manifested symptoms of a friendly spirit towards the British. The Afredi on the south-western corner of the Peshawur border have not signalized themselves.

The British Government was concerned chiefly with the Afredi of the two passes (*i. e.*, the Kohat Pass or Gullee and the Jewakee Pass.) For the guardianship of these passes the Afredi received some kind of consideration from successive dynasties, Ghiznivide, Mogol, Doorance, Barukzye, Sikh and British; and broke faith with each and all. These mountaineers are great traders and carriers. They convey salt from mines in the Kohat district to the Peshawar market. They also cut and sell the firewood of their hills. By these means they procure a comfortable subsistence, which cultivation on their rugged hillsides would not alone suffice to afford. The British authorities can, by blockading the mouths of the passes, stop the trade and reduce the Afredi to sore straits. The Gullee or Kohat Pass is the direct and best route from Kohat to Peshawur. The government post between these two important stations runs usually by this route.

The Afreedees of the Jewakee Pass, even among the Afreedee clans were considered particularly daring and ferocious. Their mountains are very strong. When the Afreedees of the Kohat Pass misbehaved, the Jewakee Afreedees offered to engage for that Pass, or to conduct the communication through their own Pass The Jewakee Pass was actually used for a short time, but the Jewakee Afreedees soon proved themselves to be worse even than their neighbours. They committed numerous raids and murders in the Peshawar and Kohat districts, and even robbed boats on the Indus. They also murdered a British officer, named Dr. Healy, who was travelling towards Kohat, for no other reason than that he was a defenceless Christian, with a little property about him —*Records of the Government of India.* See Khyber.

AFSANTIN. Arab. أفسنتين Artemisia Indica. Wormwood.

AFSHANI KAGHAZ. Paper sprinkled or studded with gold leaf, used in India when writing to persons of distinction.

AFSHAR a Turki tribe who supported Shah Ismael. See Kazzilbash. Kajar. Khorasan.

AFTAB-GIRI. Pers. آفتاب گيري lit. Sunbolder,—a sun-shade and emblem of rank, used in eastern countries; it is held by a servant to protect his master from the rays of the sun.

AFYUN. Malay. Opium.

AGAATA It. See Carnelian.

AGA DAMA. See Inscriptions.

AGA KARA Tel. అగాకర. Mimordica dioica, Roxb. and Willd.

AGA KHAN a Persian noble residing in Bombay the Pir or religious head of the Khajahs. See Khajah.

AGALLAS. Sp. Galls.

AGALLOCHA WOOD.

A[illegible] au ...	.. Burm.
[illegible]s ...	...Eng.
[illegible]o wood	... „
[illegible]od aloes	... „
[illegible]gle wood	... „
[illegible]gn aloes	... „
Aquila of commerce	
Bois d' Aigle ...	Fr.
Garo de Malacca...	„
Agar ...	Hind.
Kalambah...	Jav. Mal.
Kayu Gahru...	Jav. Mal.
Karambak	„ „
Agila ...	... „
Lignum aloes	.. Lat.
Agallochum	... „
Ud-i-Kimari	. Pers.
Ud-i-Hindi	.. „
Agarha ...	... Sans.
Agur ...	... „
Aglay maram	.. Tam.

This wood is much prized throughout the east, as a perfume. The best specimens appear to be a mass of resin in decayed wood, and melt away under heat giving forth a very fragrant odour. The tree is said to be void of it, when in a healthy state, and only to exude this résinous substance when in decay, or even after it has died. There appear to be at least three kinds of Agallocha or wood aloes, the trees producing which are not fully identified. Dr. Roxburgh, followed by Dr. Royle, admits doubtfully the existence of two, viz., the Aquillaria agallocha of Roxburgh, and Aquillaria ovata, Cor, the Garo de Malacca of Lamarck; and an inferior sort is said to be derived from Excœcaria agallocha which need not be taken into account. But Loureiro maintains that the best Lign-aloes or Calambac, which appears to be the Ud-i-kamari of the Indian bazaars, is derived from a tree which he calls Aloexylon agallochum. Roxburgh and Dr. Royle consider the Malayan *agila*, the Aquila and eagle wood of commerce, and the ud-i-hindi of the bazaars, to be the produce of Aquillaria agallocha which grows plentifully to the N. E. of Bengal and that it is probably identical with A. ovata of Royle. The Aloexylon agallochum of Loureiro, yields a scented wood used by the Chinese in medicine and perfumery, and is said to bring £30 the cwt. in Sumatra. The lign aloes brought to Burmah is the produce of a tree that grows on the Mergui Islands, and imported into Mergui by the Selungs. Specimens of Amboyna wood, of the odoriferous sandal-wood from Timor, clove wood and other choice woods, from the Moluccas and Prince of Wales' Island, were sent to the Great Exhibition of 1851. The Hakims of India administer it in their electuaries in combination with spices, ambergris, &c.—*Honigberger. Mason. Simmonds. O'Shaughnessy. Elliot's Flor. Andhrica. Exhibition of* 1851. *Balfour, Madras Museum.*

AGALLOCHEE. Greek. Eagle-Wood.

AGALLOCHUM. Lat. Eagle-Wood.

AGALLOCHUM PRIMARIUM. Rumph. Syn. of Aloexylum agallochum Lour.

AGALLOCHUM OFFICINARUM. Lat. Eagle-Wood.

AGALLOCHUM SPURIUM. Rumph. Syn. of Eagle-Wood.

AGALMATOLITE, or figure stone of Jameson; Phillips called it Pagodalite from its being imported from China in figures, pagodas, &c.; also Sammy or Swamy, *i. e.* deity stone: it is found in quantities near Chota Nagpoor —*Col. Ouseley, in Bl. As. Trans.* 1843, *p.* 923, *Reports* 63, *quoted by Dr. Buist.* See Sami stone.

AGAMA, a genus of reptiles of the Malay Peninsula and the Molucca Islands. See Reptilia.

AGAMA VAGEESHA, Sans. From agămŭ, one of the Tantras; vak, a word, and eesha, lord; the god of speech, a name of Vrihaspati.

AGAMA SASTRA. A name of the Tantras.

AGAMA TUBERCULATA. Syn. of Laudakia melanura.

AGANOSMA ACUMINATA. *G. Don.* Kyetboung-pho. Burm.

AGAO, Hind: Agavu, Tel: Peshgi, Pers: اگاز

Achagaram. ... Tam. | Acha waram. Tel

An advance of money.—*Wilson.*

AGAPANTHUS UMBELLATUS. A beautiful blue lily, brought from the Cape, propagated by dividing the roots, requires a light peat, sandy soil, mixed with old vegetable manure.—*Riddell.*

AGAR. Hind. Sans. اگر Eagle-Wood. Wood Aloes.

AGAR-AGAR, the Malay name for the tenacious jelly or glue, made from the Plocaria (Gigartina) tenax, a marine fucus. It is imported into China from the Eastern Archipelago, though the Chinese likewise manufacture it for themselves, and apply it as size to many useful purposes and use it as food. The bamboo lattice work of lanterns is covered with papersaturated with this gum, which, when dried, is semi-transparent : it is also used in paper and silk manufactures. It is incomparable as a paste, and is not liable to be eaten by insects. When boiled with sugar, it forms a sweet glutinous jelly, called, in Canton, Wong-leung-fan, which is used as a sweetmeat, and sold on stalls in the streets. It is brought from New Holland and New Guinea and other adjacent islands : between 400 and 500 peculs are imported annually by the Chinese at a prime cost of from 1 to 2 dollars per pecul. Its cheapness and admirable qualities as a paste render it worthy the attention of other countries; when cooked with sugar, it resembles calf's foot jelly. Of the three kinds of Agar-Agar, sent to the Exhibition of 1862, from Malacca, the first quality was from a sort of Tripe de Roche an edible sea weed which grows on the rocks that are covered by the tide. It is much used for making a kind of jelly which is highly esteemed both by Europeans, and Natives for the delicacy of its flavour. Exported to China, at 19s. per 133⅓ lbs. The Agar-Agar of the 2nd quality from Macassar and the Celebes is an edible seaweed collected on the submerged banks in the neighbourhood of Macassar by the Baju Laut or Sea Gypsies, for exportation to China. 12s. 6d. per 133⅓ lbs. The Agar-Agar of Singapore is collected on the reefs and rocky submerged ledges in the neighbourhood of Singapore, and constitutes the bulk of the cargoes of the Chinese Junks on their return voyages. It is much used as a size for stiffening silks, and for making jellies. The quantity shipped from Singapore is about 10,000 peculs annually.—Though deserving of being better known, it does not appear to be an article of Indian import, or, if so, it is brought in under some other name. The whole thallus of the Ceylon Moss is sometimes imported from Ceylon, and used in Britain for dressing silk goods.—*Hon'ble A. Morrison. Exhib. Jur. Reports and Catalogue. Simmonds. Tomlinson. T. William's Middle Kingdom.* See Euchemia Spinosa : Gigartina tenax. Gracillaria tenax. Fucus tenax. Plocaria candida. Edible seaweed.

AGARAH. Duk. اگرا Achyranthes aspera.

AGARIIU. Sans. Agallocha : Eagle-Wood.

AGARIC. Hind. اغاريقون

Agaricun ...	...Arab.	Agarikun ...	... Hind.
H'mo, ...	. Burm.	Amadou ...	... Fren.
Fungus, ...	... Eng.	German Tinder ...	Eng.
Mushroom, ...	„		

This is found in all the bazaars of India. where it is still employed in native medicine.—*Mason. Faulkner. Honigberger.* See Fungus.

AGARICUS, the generic name for the mushrooms, many of which grow in India during the rains but are little used by Europeans from the difficulty in distinguishing the poisonous from the edible kinds.—*Voigt.* 745.

AGARTOLLAH. See India.

AGARU CHETTU, అగరుచెట్టు. Tel, Aquilaria Agallocha, *R.* ii. 422.—Eagle-wood.

AGASA-TAMARE. Tam. ஆகாச தாமரை Pistia stratiotes. *Linn.*

AGASSIUM. Tel. Atmospheric air.

AGASTI. Sans. Æschynomene grandiflora.

AGASTYA, a native of Thibet, a Maha Muni, of great celebrity in the legends and literature of Southern India. He methodized the Tamil language, and is the chief Tamil medical authority. He is estimated to have lived in the sixth century B.C., but the Tamulians suppose him to have lived long anterior to this. According to Hindu legend, Agastya was the son of Mitra and Varuna conjointly, and born in a water-jar along with Vasisht'ha. Having commanded the Vindhya mountain to lie prostrate till his return, he repaired to the South of India, to Kolapur, where he continued to reside, and appears to have been mainly instrumental in introducing the Hindu religion into the Peninsula.—*Wilson's Hind. Theat. Vol.* 1. *p.* 313. *Rev. W. Taylor. Dr. Caldwell. As. Soc. Trans. Vol. III. p.* 213. See Hindu.

AGASTYA, Sansc. The Star Canopus.

AGAT. Rus. Carnelian.

AGATE. Eng. and Fr. *αχατης* Gr. One of the inferior gems, and classed amongst the earthy minerals by Phillips, is found in great variety and abundance in many parts of India. Some of the agates and other silicious minerals in the amygdaloid rocks on the banks of the Seena river, between Sholapoor and Ahmednuggur, are of great size and in profusion; but the most beautiful are brought from Cambay.

AGATHÆA SPATULATA. A blue flowering plant cultivated by Europeans in India. *Riddell.*

AGATHIS AUSTRALIS. *Hort.*

Dammara Australis.

The Kawrie or New Zealand Pine, one of the Coniferæ, in its native forests, attains a considerable height, with a straight clean stem, which, from its lightness and toughness, has been found well calculated for the masts of ships. It was introduced into the Bombay Horticultural Society's Gardens. It yields a hard brittle resin, like mastich, which is chewed by the natives. Its soot is used in tattooing. —*Dr. Riddell. Eng. Cyc. Hog. p.* 711.

AGATHIS LORANTHIFOLIA. *Salisb.*

Dammara loranthifolia, *Linn.*
Pinus dammara *Linn.*

Theet men...	...Burm.	Dammar Pine	...Eng.

A large tree, found on the very summits of the mountains of Amboyna, Ternate, and in many of the Molucca Islands. Griffith mentions a tree under that name as a member of the Tenasserim flora, and Dr. Mason has seen the young plants of the tree, to which Griffith referred, and which the Burmese call Theet-men or tree governor. The leaf is precisely that of the dammar pine, but the Tenasserim tree is not known to yield any dammar. The timber of the Archipelago tree is represented to be light and of inferior quality, wholly unfit for any situation exposed to wet, but answering tolerably well for in-door purposes. The wood of the Tenasserim tree on the contrary is white, rather light, and bears a considerable resemblance to some kinds of pine. It is used by Burmese carpenters for various purposes, and the Burmese have a superstition that the beams of balances of their scales, ought to be formed of this wood. *Drs. Griffith ; Mason and Riddell. Eng. Cyc.*

AGATHOCLES, one of the greek successors of Alexander who reigned in Bactria B. C. 247. See Afghan. Inscriptions. Kabul.

AGATHOTES CHIRAYTA. *G. Don.*

Ophelia chirayta. *Griesbach.*
Gentiana cheraita. *Flem. As. Rs.*
Swertia cheyrate. *Buch. M.S.S.*
„ racemosa. *Wall.*

Chiraita......	......Beng.		
Charaita..	...Duk.	Kiriyatha ..	...Maleal.
Chirayit Gentian.	Eng.	Chirataka...	.. Sans.
Chiraita...... ...	...Duk.	Shayrait....	...Tam.
Chiraita, also *Kiriat*......	......Hind.	Silassattu..	...Tel.

This plant has smallish bright yellow flowers. It grows in Nepaul, the north of India, the Morung Hills. And is a common and abundant plant in the bazaar, supplied chiefly by the lower ranges of the Himalayas. All parts of the plant are extremely bitter and are identical in composition with the common gentian. It is highly esteemed as a tonic and febrifuge all over India and is a perfect substitute for gentian. The whole plant is pulled up at the time that the flowers begin to decay, and is dried for use. The root is considered the bitterest part, and it is best administered in the form of an infusion or tincture ; the nuts of Guilandina bonduc are sometimes pounded and given with it.—*Cleghorn. Voigt. Cat. Ex.* 62.

AGATI, also Agisi, also Avisi. Tam. Tel. అవిశ Agati grandiflora.

AGATI GRANDIFLORA. *Desv. W. & A.*

Agati grandiflorum. *Desv.*
„ „ var. albiflorum. *Desv.*
„ „ „ coccineum. „
Æschynomene coccinea. *Rox.*
„ grandiflora. *Linn. Rox.* 331.
Corouilla „ *Willd.*
Sesbania „ *Pers. Rheed.*

Pauk-Ban ...	...Burm.	Avitta	Tam.
Baka, also Buko...	Beng.	Agasi also Avisi also Bakepus...	„
Augasta	„	Red var. Erra Agisi on Avisi... ...	„
Agati tree ...	Eng.	White var. Tella Agisi or Avisi ...	„
Auguste wood tree	„		
Agate ...	...Maleal.		
Baka, also Baka-pushpam... ...	Sans.		

Of this plant there are two varieties, the one variety called A. albiflora, and the other A. coccinea. It grows all over India and Burmah is seen in every town and village of the Tenasserim Provinces, and in the betel gardens of peninsular India, where it is cultivated for shade, and as a trellis for the support and shelter of the piper betel, and is easily recognized by its large white and bright scarlet flowers. Its wood, is soft, only fit for fuel, and of no use in carpentry or cabinet work, but the tree grows with great rapidity, and could be usefully planted to shelter young trees of slower growth. There are varieties of the Agati, some with variegated and some with red flowers, and the leaves and flowers of a white variety, known in Tamul as the Agati-kire-pu, are used by the natives in soups, curries and as greens. On the Madras Coast, the legumes which are 12 to 18 inches long are not frequently eaten, but they are a favourite vegetable with the natives of Burmah. Medicinally, the bark is a powerful bitter tonic : and the leaves are used in infusion in catarrh, as an aperient. There are few trees in such common request.—*Mr. Jaffrey. Useful Plants. Mr. Elliot, Drs. Riddell, Mason, and O'Shaughnessy. Voigt.* 216 *Roxb.* 331 ; *R. Brown. Rhode. M.S.S.*

AGAVE AMERICANA. *Linn.*

Agave cantula. *Roxb. II.*, 167.
Aloe Americana. *Rumph.*

Bilate Ananas ...	BENG.	Kalabantha ...	TAM.
Bakkul.	„	Pita	„
American Aloe ...	ENG.	Anai Kattaley... ...	„
Rakus.	HIND.	Sagi Matta ...	TEL.
Kala Kantala ...	SANS.	Yenuga Kala manda	„

Common all over India, useful as a hedge plant. Its leaves yield a useful fibre suitable for cordage and the "pita" thread is obtained from it. Its juice, obtained in Mexico, by incisions on the stem, when distilled yields a spirit called *pulque*. Its dried leaves, cut, serve as good razor and knife strops —*Roxb. II.* 167. *Simmond's Veg. Prod. Mad. Ex. Jur. Reports. Useful Plants. Royle. Fib. Plants. Dr. Wight*

AGAVE VIVIPARA *Linn.*

Bastard Aloe, ...	ENG.	Pithakalabanda...	TAM
Kathalay	TAM.	K'lamanda	„

Dr. Royle considers the A. vivipera to be closely allied to this species, which he describes as common in the Bengal Presidency, and growing freely in Malwa, yielding fibres from twenty to thirty inches in length, and on testing their strength Captain Thompson found them quite equal to the best Russian hemp.—*Royle, p.* 8. See Kathalay.

AGAVE YUCCÆFOLIA. A plant naturalised in India, capable of yielding fibres.—*Royle, p.* 43.

AGHA, ARAB. PERS. A title in use in Persia. The North Eastern tribes write it as Aka, but in familiar conversation the gh or k are dropped and the word sounded A'a, as a in almond—*Archer, Ouseley's Trav.* 11.59.

AGHASTIA. SANS. Agati grandiflora. Aghati-kal TAM.; phalli HIND, its pods; kire TAM. bhaji HIND. greens of Agati grandiflora.

AGEL HOUT. DUT. Eagle wood.

AGELLA. A wood of this name was exhibited at the Madras Exhibition of 1857, and was supposed by some to be the Indian Cedar wood "Aquilaria agallocha." It was a light coloured wood with a fine even grain, appeared admirably adapted for furniture and many domestic purposes. It is said to be abundant in Malabar and has been already used for a variety of purposes by the railway engineers.—*M. E. of* 1857.

AGERATUM CŒRULIUM and A. Mexicanum, exotic flowering plants, cultivated for their pretty flowers in sandy soil; must not be too much shaded if cultivated in pots. A. conyzoides is a native of India.—*Voigt. Riddell. Jaffrey.*

AGGANA SUTTAN. a discourse of Buddha. See Wijao.

AGGUR, HIND. Probably from Agara, SANS. Eagle Wood.

AGHARI or **AGHORAPANTHI,** a hindu religious Saiva sect, who originally made Devi the object of their worship in some of her terrific forms, said to have required even human victims for its performance. The Aghora wand and waterpot were a staff set with bones and the upper half of a skull: the practices were of a similar nature, and flesh and spirituous liquors constituted at will the diet of the adept. The sect had died out, by the beginning of the nineteenth century, only a few disgusting wretches, universally feared and detested, being then met with, whose odious habits and practices rendered them objects of aversion. They are now unheard of.—*Wilson.* Colonel Todd says that he had heard that such wretches did exist, not only in the sacred Aboo, but amidst the impenetrable recesses of the other mounts dedicated to the Jain faith, in the peninsula of the Sauras. He mentions that D'Anville speaks of them as "*une espece de monstre,*" whose existence he doubted, though he quotes from Thevenot, who remarks "Les habitans de ce bourg, (Debca), estoient autrefois de ceux qu'on nommoit *Merdi-Coura,* ou Antropofages, mangeurs d'hommes; et il n'y a pas grand nombreed'annees qu'on y vendoit encore de la chair humaine dans le marche."—(*Voyages de M. de Thevenot*; Paris, 1684. D'Anville adds, that this "*espere de bete,*" this *Merdi-cour,* or properly Mardi khor, from the Persian mard man and khor eater, should have been noticed by Pliny, Aristotle, and Ctesias, under nearly the same name, *Martichora,* showing that this brutalized sect is of ancient date; secondly, that the Persians must have had an intimate intercourse with these regions in early times; and thirdly, that the western historians must have had more recourse to Persian authorities than we at present are aware of. Colonel Tod adds that he passed the gopha or cave of the most celebrated of these monsters of the present age, who was long the object of terror and loathing to Aboo and its neighbourhood. One of the Deora chiefs told him that a very short time previously when conveying the body of his brother to be burnt, one of these monsters crossed the path of the funeral procession, and begged to have the corpse, saying that it "would make excellent chatni," or condiment. He added, that they were not actually accused of killing people. The head quarters of the caste are at Burputra (Baroda), and in Colonel Tod's time, there still existed on the old site a temple dedicated to the patroness of the order, Aghor-eswar-Mata, represented as "Lean Famine," devouring all. Her votaries are brought into the compendious class of ascetics, of whom they are the most degraded, beyond all controversy; they eat whatever falls in their way, raw or dressed, flesh or vegetables, and drink whatever is at hand, spirits, or their own urine. Marco Polo (Marsden, Marco Polo, p. 252) speaks of a class of magicians who are akin to the Indian Aghori "The Astrologers, who practise the diabolical art of magic, are natives of Cashmere and Thibet. They exhibit themselves in a filthy and indecent character ; they suffer their faces to remain uncleaned by washing, their hair uncombed, being in a squalid style. Moreover, they are addicted to this horrible and beastly practice, when any culprit is condemned to death, they carry off the body, dress it with fire and devour it." The word Aghora, Panthi is SANS. from Aghora, a name of Shiva, and pant'ha, a way. —*Tod's Travels, pp.* 84 *and* 85. *Wilson's Hindoos.* See Aghori. Hindoo ; Kattyawar, Kerari.

AGHRI DAGH. A name of Mount Ararat.

AGHVAN or AVGHAN, a name of the Afghans. See Afghanistan.

AGIAH or AUGIAH grass, described by Hamilton, vol. 1, p. 2 as growing about the thickness of the wrist and to a height of thirty feet in the belt of low land running from Africa along the whole Northern frontier.

AGILA also AGILA-GAHRU, MALAY. Eagle-wood.

AJMIR, a Rajput state among rugged mountains, and close valleyss ; which long preserved independence, and in a great measure, down to the present time is in respect of Hindoostan, what the country of Switzerland, is to Europe, but much more extensive, and populous. From Mahmud to Aurungzebe, the Indian conquerors were contented with the nominal subjection of the hardy Rajpoot tribes of Rajpootana among whom military enthusiasm, grafted on religious principles, is added to strength and agility of body ; and this race is disseminated over a tract equal to half the extent of France.—*Rennel's Memoir. p.* xlvi, xlvii.

AGISI, (*V. Avisi*) TEL అగిశి-(అవిశి.) Agati grandiflora. *Desv.*

AGLAIA MIDNAPORENSIS. *Carey.*

A. grata. *Wall.*

This tree grows in the forest of Midnapore : wood not known.—*Voigt.*

AGLAIA ODORATA, *Lour.*

Cammunium Sinense, *Rumph.*

This grows in Cochin-China and China. It is a flowering shrub with ternate and pinnate leaves, and very small yellow flowers in axillary racemes with a very agreeable perfume. Both the *Aglaia odorata*, and *Murraya exotica* are very sweet scented and much cultivated by the Chinese.—*Fortune's Tea Districts, p.* 7 *Riddell. Voigt.* 136. *Hog.* 171.

AGLAIA SPECTABILIS.

Kayan Kayo. BURM.

A large tree met with in Tenasserim and along the banks of rivers in the Pegu and Tounghoo districts. It affords a light serviceable timber somewhat stronger than the American pine, and capable of being wrought with little labour. Wood, red coloured, strong and adapted for house building.—*Mc. Clelland. Mason.*

AGLAIA ROHITOC. *Mc. Clell.* Khayan Kayoe. BURM. Of this no information.

AGLEMARAM. TAM Chickrassia tabularis.

AGNI, (IGNIS) the hindoo god of fire. About a fifth of all the hymns in the Rig Veda refer to this god, exclusively, and most of the ten books open with hymns addressed to him. In Vedic mythology, Agni is the personification of fire, and the regent of the south-east division of the earth. He is variously described : sometimes with two faces, three legs, and seven arms, of a red or flame colour, and riding on a ram, his *vahan* or vehicle. Before him is a swallow-tailed banner, on which is also painted a ram. He is by others, represented as a corpulent man of a red complexion, with eyes, eyebrows, head, and heir of a tawny colour, riding on a goat. From his body issue seven streams of glory, and in his right hand he holds a spear. Agni is the son of Kasyapa and Aditi. His consort or *sacti* is Swaha, a daughter of Kasyapa. Swaha, the *sacti* of Agni, resembles the younger Vesta, or goddess of fire, of the Romans, who had no images in their temples to represent her. Thus Ovid has said.

> "No image Vesta's semblance can express,
> Fire is too subtle to admit of dress."

Neither do we meet with an image of Swaha. Those of Agni are usually seen in pictures—*Cole. Myth. Hind. p.* 115 *and* 117.—See Vedas. Agnihotra Brahmans. Brahminicide. *Indra.* Hindu : Vahan : Vedas. Yavana Zonar or Zennaar.

AGNICULA. A general term for four tribes of hindus, supposed of Parthian descent, the Chohans, the Purihars, the Solanki and Pramara, who are fabled have been produced by a convocation of the gods on Mount Abu—*Tod. Vol.* II. *page* 451, *quoted in Prinsep's Antiquities by Thomas, p.* 247. See Khutri, Rajpoot. Chohan.

AGNIDHRA. See Hindu.

AGNIHOTRA BRAHMANS, the remnant of the worshippers of Agni, who still preserve the family fire, but in other respects conforms to some mode of popular Hindu devotion. According to prescribed rule, where a perpetual flame is maintained, it is used to light the fire round which the bride and bridegroom step at the marriage ceremony, and the funeral pile of either ; but the household fire is preserved only by this particular sect, the Agnihotras, and the great body of the people have nothing of the kind. In this case they distinguish between the sources whence they obtain the kindling flame according to the purposes of its application, and the fire of the marriage rite is taken from the hearth of a respectable person, or from a fire lighted on some auspicious occasion, whilst for the funeral pile, "any unpolluted fire may be used. It is only necessary to avoid taking it from another pile, or from the abode of an out-cast, of a man belonging to the tribe of executioners of a woman who has lately borne a child, or of any person who is unclean." Notwithstanding these exceptions, it is at present the common practice of the hindus of ordinary rank in the western provinces to procure fire from an out-cast to light the funeral pile.—*Wilson's Hindu Theatre, The Toy Cart. Art* 112. *Colebrooke on the Religious Ceremonies of the Hindus. Asiatic Res.* XXI. 241, See India. Inscriptions. Tripandra.

AGNIHOTRI. SANS. from agnis, fire, and hotre, a sacrificial priest, always of the brahminical order. See Tripandra.

AGNI MATA, SANS. (*v.* Chitra mulum, అగ్నిమాత-(చిత్రమూలం) Plumbago Zeylanica, *L.*

AGNIMUNDA.—SANS. Physalis angulata formed of fire,—an ethereal voice heard from the sky proceeding from a meteor or flame.

AGNIPURI. See Acasanavi.

AGNI SIKHA, S. అగ్నిశిఖా. I. Gloriosa superba, *L.* also Carthamus tinctorius. *L.*

AGNI VENDRAPAKU అగ్నివేంద్రపాకు. Ammania vesicatoria, R. i. 426.—*W.* & *A.* 939.

AGNYASTRA, the first shaft invented by Viswakarma in the war between the gods and the daityas or Titans. See Viswakarma.

AGOU, a Semitic nation in Africa. See Semitic races.

AGRA in 27° 10' 2"; 78° 1' 7", is a large city on the right bank of the Jumna. It was the seat of government from the time of Akbar the greatest of the Mogul emperors, whose sway extended far beyond the limits of British India. It remained the seat of government of part of Hindustan under the shorter lived dominion of the Mahrattas; it was retained as the seat of government after the conquest by the British during some of the brightest periods of British rule, and continued so till the removal of the seat of government to an unhealthy spot in the confluence of two rivers whose yearly deposits of alluvial soil keep up a perpetually renewed supply of fever and malarious disease. Its abandonment seems to be recognized as a grave political error, while, for strategical purposes a few more soldiers would have sufficed to ensure its supremacy. As one of the finest cities of upper India, from which in past times the edicts of imperial dominion were issued to the furthest limit of Hindustan—and which even in its changed and ruined state still retains throughout Rajputana and Central India the prestige of an imperial city, there can be but one feeling, that of unfeigned regret that the imperial city, which held the palace and the throne of the Indian Cæsars, should have been deprived of its fame and title as the political if not the commercial capital of Upper India with the historical associations of centuries. When the two viceroys, Lord Canning and Lord Elgin, met the assembled princes and chiefs of Upper India, it was to Agra they were summoned. And fifty years hence whatever changes may come over India, in spite of the influence of railways and metalled roads, when a future viceroy shall summon the future chiefs of India to his durbar, it will be either at Agra or Delhi that they will flock with all their retinue and barbaric pomp. Independent chiefs and princes covet to possess land and houses at Agra and Scindia and Jeypore have eagerly availed themselves of the opportunity to purchase valuable estates, the one close to, and other actually within, the limits of a British cantonment. The Ram Bagh garden merits attention and the magnificent tomb of Itimad-ud-Dowlah, the vizier of the emperor Jehangir, and father of the famous empress Nurjehan, who built the tomb.—*Mundy's Sketches in India, Vol. I. p.* 53. *Thurlow's Company and the Crown. Delhi Gazette. Robert Schlagentweit.* See Inscriptions: India. Kama: Sakya muni. Oojein. Rama. Saud.

AGRADANA or AGRIHARIKA in Bengal, a brahmin of an inferior order who conducts funeral obsequies or sraddhas for hire, called Mahápátra and Mahábráhmana ironically.—*Wilson.*

AGRAHAYANA, a hindu month falling in November and December. See Brahma, Hiranyagharbah.

AGRAZ, SP. Verjuice.

AGREST, GER. Verjuice.

AGRESTO, IT. Verjuice.

AGRICULTURE.

KhetKaru	.... HINDU	Zarayat	.. ..PERS.
Kheti Bari	... .. HIND.	Pairoodagaradoo	TAM.

Agriculture, in all countries the chief branch of industry for the millions, is, in South Eastern Asia, almost the exclusive occupation of the people and the great source of revenue to the respective governments, who are usually regarded as the proprietors of the soil, and sublet the lands to tenants or fewers in perpetuity so long as the holder pays the established ground rent or tax or few-duty. The holder can sell or otherwise dispose of his holding, and cannot be dispossessed, provided his tax be duly paid, so long as the land is cultivated. In reality, in many parts of India, the sparse population and rack renting are such as to leave the lands of little marketable value, the property in it consisting of the labour bestowed on it from year to year. Nevertheless, the craving of all eastern races for their patrimonial inheritance is as intense as when Naboth said to Ahab, I. Kings xxi. 3. 'The Lord forbid it me, that I should give the inheritance of my fathers unto thee :' and the hindoos are as strongly attached to their homesteads as ever the Jews were ; as Mr. Ward observes, though the heads of the family may be employed in a distant part of the country, and though the homestead may be almost in ruins, they cling still to the family inheritance, with a fondness bordering on superstition, and it is the use and wont in India, for governments to allow proprietors or their descendants to re-occupy lands long left waste. Amongst the earliest notices of agriculture are those in the Old Testament. How Adam lived is not mentioned, but of his two sons, Abel was a shepherd and Cain had become a tiller of the ground. In Noah's time the vine was cultivated and its juice fermented and Noah's descendants in the line of Shem appear to have followed the shepherd life and to have been nomades wandering over extensive countries, to winter and summer quarters, to the available grazing grounds. These do not seem ever to have cultivated any of the grasses for food to their cattle; and to the present day throughout South-Eastern Asia, the natural herbage is exclusively relied on. The Gaoli races of the towns purchase some food materials, but the Dhangar who pasture horned cattle and the Kurambar who rear sheep roam over great tracts, living with their herds for months, apart from cities or towns, and even where they may have formed villages on which advancing civilization with its agriculture has encroached, their homesteads are abandoned for less inhabited tracts. But in Noah's time agriculture seems to have made great progress. There is no reason to doubt that the Aryan tribes who moved southwards from near the Pamir steppe were both cattle-breeders and cultivators, and their Menu is considered by many to be Noah. The remains of the races who in some unknown time came down the valley of the Indus through the valleys of Baluchistan attest the prevalence there in pre-historic times of water tillage in the usual form of the wet cultivation of India where the grounds are carefully levelled and put into small plats or compartments into each of which the water courses are led in the manner noticed in Proverbs xxi. 1. where it is said 'The king's heart is in the hand of the Lord : as the rivers of water [rather, as a 'water-course'] he turneth it whithersoever he will' an allusion to the practice of the eastern farmer in irrigating his field, when he conveys the water in channels along the fields, turning it with his foot or hand in all directions, so that every part of the field may be watered, and a good crop insured. Noah's descendants in the line of Ham, who took possession of Egypt, applied themselves to the tilling of the ground, and with so much ingenuity, industry and success, that, owing to the inundations of the Nile, and the consequent fertility of the soil, Egypt was enabled in the time of Abraham, and still more so in the time of Joseph, to supply its neighbours with corn during a period of famine. Nor were the inhabitants backward in assisting the liberality of nature : they busied themselves in embanking, irrigation, and draining, in order to derive all the benefits which the benignant river was capable of affording them. These works are said to have been carried on with particular spirit under the auspices of Sesostris, 1800 years before the Christian era. So sensible were the Egyptians of the blessings which agriculture afforded, that in the blindness of their zeal, they ascribed the invention of the art to their god Osiris, and the culture of barley and wheat to their goddess Isis. The Pelasgi who occupied Greece, were great agriculturists, and the Romans had but two avocations, war and husbandry.

The Jews, whilst in Egypt, seem to have been shepherds. But after occupying Canaan, in their respective allotments, cattle-grazing, agriculture and horticulture alike engaged their attention, of which the Scriptures contain many notices, and the modes of tillage still in operation in eastern countries illustrate various texts of the Bible. As in describing Canaan, it is mentioned that the land whither thou goest in to possess it, is not as the land of Egypt from whence you came out. (Deuteronomy xi. 10.) Where thou sowedst thy seed, and wateredst it with thy foot as a garden of herbs, which is still everywhere seen, as the mode of watering the lands in garden cultivation.

After ploughing, the farmers of India in their wet cultivation, form the ground with a hoe into small squares with ledges on either side, along which the water is conducted. Besides preventing its spreading, these embankments also serve to retain the moisture on the surface for a longer period. When one of the hollows is filled, the peasant stops the supply by turning up the earth with his foot, and thus opens a channel into another. An allusion to this custom, of the gardener changing *with his foot* the channel of a stream of water, furnishes the king of Assyria, in his threatening message, with a very appropriate image. " With the *sole of my foot,*" says he, " I have dried up the rivers of besieged places." The practice of Arabia is also familiar to the modern Portuguese husbandman.—(*Wellsted's*

Travels, Vol. I. *p.* 282) and Deuteronomy, xxv. 4. 'thou shalt not muzzle the ox when he treadeth out the corn' is a method of separating the cereal grains from the ear common throughout India though some farmers do muzzle the ox on that occasion, and others do not. The wild beasts are still as troublesome as in Psalm lxxx. 13. where 'the boar out of the wood doth waste it, and the wild beast of the field doth devour it' for the wild hogs, elephants, buffaloes and the deer tribe make sad havock in fields and orchards. The buddhist races in Burmah and China use manure largely, not old manure as in Europe but fresh refuse of every kind, only vastly diluted. The farmer races in India, except such gardeners as are near towns rarely use manure of any kind, but trust exclusively to the water of tanks in wet cultivation, or to the natural rains in dry cultivation. The latter is analogous to the tillage of England, with this marked difference that in temperate England the farming operations can be carried on all through the year and the crops are long on the ground, but in India, the rain being periodical, may last for two, three or four months, and the whole work of the Indian farm must be carried on with grains and plants that come rapidly to maturity so as to be completed before the inclement dry hot season re-commence. In this respect, there is a similarity to the range of the cropping seasons of inclement northern countries, where everything has to be suited to the shortlived though hot summer and where the grains in use, are of a kind that rapidly mature—the two elements,* inclement heat and inclement cold, compelling the same procedure. The instruments in use in India are of very simple manufacture, though in their objects of great value. The poverty of the people and the necessity of simplicity in articles for countries with few artizans and the fact that old and young, man, woman and child of the households are all employed in the m-work, necessitate the retention of imements of the simplest forms, and the dinary agricultural implements, used in mple tillage, are often of the very rudest scription. But the climate does not permit ep sowing, for the seeds must either soon rout up or rot, and the influence of the abunnt rains and vast electric forces, on the soils India are of a very different character to hose of England and do not require either the same amount or kind of mechanical treatment in order to produce the requisite effect. The implements used in Dharwar agriculture may be given to illustrate this part of the subject. A large plough is used on ground being brought into cultivation for the first time and ploughed with this, lengthways and crossways. If the land is heavy, eight, ten or twelve bullocks are used, if light, four are sufficient. It is used in cotton and also in grain cultivation.

A small plough is used in black soil at intervals of from six to ten years, and worked with two or four bullocks according to the depth of ploughing and stiffness of the soil. It is used in cotton and also in grain cultivation, and in red soils it is used every year.

The 'Kooloo' is a heavy harrow, used with two bullocks after ploughing for further breaking up the soil, and also used without previous ploughing in the years when the black cotton soil is not ploughed. After the seed, whether cotton or grain, is sown with the drill, the iron and wooden supports are removed from this implement, and the soil smoothed over the seed with the upper wood alone, drawn by two bullocks, and kept steady by the foot of the driver.

The 'Tephun' or drill is used for sowing cotton, it is drawn by two bullocks. It has two seed tubes each fed by a woman.

'The Koolpee' is drawn by two bullocks between the rows of cotton, to eradicate weeds; by this means, also, the soil about the roots of the cotton plants is loosened and piled up—a rough substitute for hoeing.

The Kooric, or drill is used in sowing grain, worked with two bullocks, which one man drives, and this man feeds the receptacle for the seed communicating to the four tubes, and a third man works the extra tubes at the side, with which another description of seed or oil seed is very commonly sown in every fifth row.

The Kolpa is drawn by two bullocks, and used for rooting up the weeds between the rows of grain; the row of grain is left untouched in the interval in the middle; the earth is also by the same operation loosened around the roots of the grain. Two of these are frequently worked together with one pair of bullocks and two men.

'Hullee Bandee' or cart is not seen much of large size in the Deccan, but is very common in the Southern Mahratta country drawn by eight bullocks. The tires are commonly six inches deep. A pair of wheels costs up to 120 Rupees; they last 50 or even 100 years, and are handed down as heir looms in families.

'Nangur' or plough is used for rice cultivation. Worked with two bullocks. Rice land is ploughed with this two or three times every year.

'The Don' or clod-crusher is drawn with two bullocks; the driver stands on the implement when working it.

The 'Kooloo' is used after the clod-crusher for levelling the ground. With the scarifier removed, it is used for covering in the seed after it is drilled in.

The 'Koree,' or drill used in rice cultivation, is similar to the drill used for the other grain, except that there are six tubes, and no extra tube for other grain is used, rice being sown alone: worked by two bullocks.

'Khorpee,' or weeder is for cleaning away any weeds which may have escaped the koolpa or weeder drawn by bullocks.

There are other implements in use in other parts of the country, or similar articles with different names. Thus in Assam the plough is called *'Negalu.'* The harrow, *'Halaway.'* The Sowing-machine *'Koorigay.'* Weeding-machine, 'Koontey,' Levelling-machine 'Halabey' Harrow Hegguntey 'Rumtee.' Kodali or mattock.

These will show that the people of India are well advanced in agricultural skill: and that they are doing as much as their humble circumstances; the climate, the soil and the required crops will admit. Their aids,—the buffalo and the bullock are chiefly employed for draft and for pack carriage, are sledges, carts with wooden or stone wheels, or wheels of solid blocks of wood as the nature of the country and the state of the roads demand. In India nearly all the cultivators are hindus and each village has a small number of hereditary out-caste labourers. The following receipt for a bait for rats, so often troublesome to agriculturists, will be found useful. Powdered Assafœtida 2 grains. Essential oil of Rhodium 3 drachms. Essential oil of Lavender 1 scruple Essential oil of Aniseed 1 drachm. Mix the assafœtida with the aniseed, then add the oil of rhodium, and still mix the assafœtida in a mortar, after which add the lavender, cork the mixture close, and put a little in a saucer into the middle of a large iron trap: taking care that a rat once caught does not escape.—*Ward's Hindus. Tropical Agriculture. Exhibition of* 1862.

AGRIMONIA NEPALENSIS. Don. A plant of Nepaul, with small yellow flowers. It is very closely allied to A. Eupatoria of Europe. —*O'Shaughnessy, p.* 325 *Honigberger. Voigt.* 196.

AGRO DE LIMONE. It. Lemon juice.

AGROSTIS, a genus of grasses of the natural order Graminaceæ of Lindley, several species of which are met with in pastures and barren-land.

AGROSTIS LINEARIS. Retz. Syn. of Cynodon dactylon. Pers.

AGUARDENTE. Port. Brandy.

AGUARDIENTE. Sp. Brandy.

AGUARRAS. Sp. Turpentine oil.

AGUBA or ABUBA అగూబ.-(అబూ.బ).—Capparis Roxburghii, D. C.

AGUILA BRAVA. Willd. Eagle-wood.

AGUMUKI. Beng. Bristly bryony. Mukia scabrella.

AGUR. Tam. Hugonia mystax. *Linn.*

AGURI. Beng. a low caste, mostly cultivators.

AGYNEIA COCCINEA.

H'ta h'men. *Burm.* H'soke gyee. *Burm.*

The roots of this curious flowered plant are used medicinally by the Karens.—*Mason.* Wight gives a figure of A. bacciformis, and Voigt. names A. puber of the Molluccas.

AHALOTH. Heb. Eagle-wood.

AHAK. Arab. Quick Lime.

AHALYA BAI. A Mahratta princess, of the Holkar family who ruled in the middle of the 18th century. See Benares. Holkar. India. Mahratta Governments of India.

AHAN RUBA. Pers. Loadstone.

AHARWARRAH. A territory on the north-east frontier of Malwa which contains many districts. The Ahar tribe or caste from whom the territory derives its names of Aharwarah and the Aharat are spread through Rohilcund and other districts in the N. W. Provinces, following pastoral pursuits. They claim to be descended from the Yadu race of Rajputs.—*Malcolm Centc. Ind. Vol. I. p* 325. See Rajpoot. These seem to be the Ahir, q. v.

AHEL? Eagle-wood.

AHETA or NEGRITO, a Papuan race, the second name, meaning little Negro, being given to them by the Spaniards; but that of Itas or Ahetas, written Ajetas, is their usual appellation among the planters and villagers of the plains. The woolly haired tribes are more numerous in the Philippines than in any other group of the Indian Archipelago, they were estimated, by M. Mallat, in 1842 to amount to 25,000. The islands Samar, Leyle, and Zebu, have not any of them; but they are found in Negros, Mindanao, Mindoro, and Luzon. In the early accounts of them by the Spaniards, they are described as being smaller, more slightly built and less dark in colour, than the negros of Africa, and as having features less marked by the negro characteristics, but as having woolly instead of lank hair; and their social condition could not then have been much better than now, since they are described as living on roots and the produce of the chase; and as sleeping in the branches of the trees, or among the ashes of the fires at which they had cooked their food. They are all well formed and sprightly, but very low in stature, as they rarely exceed four feet and a half in height. The character of the Negrito is untameable, and it is impossible to surmount their tendency to idleness. Prompted by an irresistible instinct to return to the place of their birth, they prefer a savage life to all the charms of civilization. The Ajetas or Negritos are ebony-black like negroes of Africa. Their hair is woolly, and as they take no pains in clearing it, and do not know how to arrange it, it forms a sort of crown round the head, which gives them an exceedingly fantastic aspect, and when seen from a distance, makes the head appear as if surrounded with a sort of aureole.—*Earl's Papuan's, p.* 121 *to* 131.

AHILEKA also **AHILEKUM.** Sans. Bryonia scabra.

AHILLA. Singh. Cathartocarpus fistula.

AHIMATA ROGA, name of a mysterious disease.—*Hyder's East : Monachism, p.* 433.

AHINSA in buddhism, the non-injury of animal life.

AHIR. Pers. Connessi seed, Wrightia antidysenterica.

AHIR, a pastoral tribe numerous in the N.W. of India, but who are spread through the Central Doab, in the Upper Doab, on the west of the Jumna and in the Lower Doab and province of Benares. Some of them have been converted to mahomedanism, but the bulk are hindus. They have three races, the Nand bansa, Jad-Yadu, and Gomala Bansa, who intermarry and marry the widow of an elder brother.—*Wilson's Glossary.* See Aharwarah; India, Kol : Kutch.

AHLADA MARA. Can. Ficus Indica.

AHLIM? Eagle-wood.

AHMEDI-JAMI. A celebrated poet and sage, native of Jam, known generally as Jami. He is the author of many works of high estimation. His romance of Yusuf and Zuleika, so much admired in the East, is taken from the story of Joseph and Potiphar's wife. He flourished in the fifteenth century, and died about the year 1486; he was contemporary with sultan Hussain Baicara, a prince of the descendants of Timur, who reigned in Khorasan, and whose capital was the city of Herat.—*Fraser's Journey into Khorasan p.* 39.

AHMED KHAN SADOZYE, on the assassination of Nadir Shah in 1747, declared himself king of Kabul, and laid the foundation of the Durani kingdom. He greatly added to the wealth and fame of his own family and his kingdom by six successive invasions of India, in all of which he was successful, but in one he obtained the highest renown among mahomedans by the memorable defeat that he gave to the Mahratta army at Paniput, a few miles to the northward of Delhi. The famous action was fought in January A. D. 1761. It was a contest between the mahomedans and hindus for the sovereignty of India. The mahomedan army amounted to sixty thousand men, of whom not one half were Affghans : but his own troops were those upon which Ahmed Shah most depended. The Mahrattas were computed between seventy and eighty thousand. They were defeated with great slaughter. In November 1763 he again appeared on the Indus, irritated against the Sikh sect for the trouble they had given him, not less than from bigoted zeal against all non religionists. He signalized his march through Amritsar by the demolition of the Sikh temple of Harmandur and of the sacred talao, or tank. The first was blown up with gunpowder, and the reservoir, besides being defaced and filled up, as far as materials and time permitted, was polluted with the blood and entrails of cows and bullocks, a sacrilege even greater in the eyes of the schismatic disciple of guru Govind than of the orthodox braminical hindu. Pyramids were erected of the heads of slaughtered Sikhs, and Forster (Travels, Vol. I. p. 279) relates that Ahmed Shah caused the walls of those mosques, which had been polluted by the Sikhs, to be washed with their blood, to remove the contamination and expiate the insult.—*Malcolm's History of Persia, Vol. II. p.* 235. *History of the Punjab, Vol. I. p.* 219. *Burnes Kabul* : See India : Kandahar, Karez : Paniput ; Khyber ; Kazzlbash.

AHMEDNUGGUR, a city and fortress in the province of Aurungabad, ceded to the British in 1803 : it is the principal artillery station of the Bombay Army. It is on the right bank of the Seenah river. Its fortress, in the centre of a great plain, consists of a curtain with bastions, and was surrendered to Colonel Wellesley, a few days after the storm and capture of the Pettah, which also is surrounded by a curtain and bastions. The population in 1828 was 21,208, and in 1835, 23,774.

It is in lat. 19° 5' N. and L. 74° 55' E. It was the capital of the territories of the Nizam Shahi dynasty, and their many extensive palaces, the Farrah bagh and Rashk-i-Irm are now in ruins A pretty little mosque, the Damri Masjid is to the S. of the fort. The Nizam Shahi dynasty and its servants built several valuable Karez.

AHMEDZYE, an Afghan tribe. See Afghanistan. Kelat. Wazira.

AHOM, also **EHOM**, a branch of the Tai family.

AHOM in Burmah, the name of the people of Assam, their religion was the worship of a god called Chang. In 1665, the reigning Rajah Chu Kum, adopted hinduism. See India.

AHOO, a soft, though fine, but not very close-grained light Ceylon wood.

AHRIMAN, also known as Ahrimanes and Ingromaniyus. The ancient Persians held, and modern Parsees hold, a dualistic belief in Ormuzd the good and Ahriman, the deadly principle from whom all evils spring. See Aryans. India. Parsees.

AHSHTAR, a plain on the borders of Assyria. See Luristan.

AHVI. Tam. ஆவி Atmospheric Air.

AHVI MARAM, Tamul; or "steam-wood," from its emitting steam when the root is cut; is a Malabar tree, growing to about ten inches in diameter, and fifteen feet long: it is of little value, and not very durable; but at times it is used for inferior purposes in the frames of native vessels, in repairs, &c.—*Edye, Malabar and Canara.*

AHWAZ, a town in Khuzistan or Arabistan. This once celebrated city is ninety-two miles North-East of Bussorah, on the banks of the river Karoon, in the province of Khuzistan, the ancient Susiana. It became extensively known after certain districts had been combined under the name Al Ahwaz, and their capital was designated Suq-ul-Ahwaz, the mart or emporium of Al Ahwaz —*Mignan's Travels*, 294.

AIGAREET MYIT. MALAY? This root is said to deprive spirituous liquor of all its strength, and a decoction given to an intoxicated person is said to render him immediately sober.—*Cat. Ex.* 1862.

ARGHA-NATHA, a title of Iswara, the lord of the boat shaped vessel. See Yavana.

AI, an island of the Moluccas, the Pulo Ai of the Malays, Pulo Way of the British, situated about ten miles to the westward of Banda Lenthor or Great Banda. It is about 8 miles in circumference, and moderately elevated, its entire surface consisting of nutmeg plantations, this spice being its sole exportable product.—*Jour. Ind. Arch.*

AIKAMENIL. TIMOR. Sandal-wood.

AIL. FR. Garlic.

AIDUMA, an island on the S. W. Coast of New Guinea, near the entrance of Triton's Bay or Warangari in Lat. 3. 58' S. Long. 134. 15' E. Modera. It is 7 miles long and 2½ to 3 miles wide, and is separated from the mainland of New Guinea by a narrow but unfathomable strait, through which the tides run with great rapidity. The chief exportable products are wild nutmegs, several kinds of odoriferous bark, ebony, and kayu-buka; which, with tortoise-shell and small quantities of trepang, form the return cargoes of the Ceram and, sometimes, Macassar prahus, that visit the port annually for purposes of trade.—*Jour. Ind. Arch.*

AILANTHUS EXCELSA. *Willd. Roxb. II. Vol.* 450. *Voigt.*

Ailantus excelsus.

Indian Ailantus...	ENG.	Peru Maram ...	TAM.
Maruk	MAHR.	Pedda Manu ...	TEL.
Peru Mara...	MALEAL.	Peyyapa Pedda-manu	"
Arala...	SANS.		

This tree grows in Coromandel, Surat, Baroach, Baroda, and the Dekhan. It resembles the ash in its general appearance and attains a large size, flowering in January and February. It is common about old buildings and in raviny ground of the Dekhan and of Guzerat, about Baroach and Baroda. It is seldom found as a tree in the Bombay forests. It is common in the Northern Circars, and in the Godavery forests, and is met with in Coimbatore. Doubts seem to exist as to the value of the wood. Dr. Wight says it had been described as hard, close-grained and heavy, and fit for gun stocks, and he had been told that it is much used in Bombay, in cabinet-making, but he greatly doubted the correctness of the information, in which Dr. Gibson concurs. Dr. Cleghorn in the Madras Exhibition Jury Reports, describes the wood as light and white and he and Graham say it is used for making sword handles, &c. It is also employed to make sheaths for spears, and catamarans, but is not durable. On the Godavery, the natives never use it.—*Roxb. II.* 450. *Drs. Wight, Cleghorn, Riddell, Gibson, Useful Plants, Mr. Elliot, Mr. Jaffrey, M. E. Jurics' Reports, Captain Beddome. Voigt. p.* 186.

AILANTHUS MALABARICUS.

Madde Doop ..	CAN	Peru Mara ...	TAM.
Perri Maram ..	MALEAL		

A large tree of the Anamallai forests, Travancore, Malabar, and in Canara and Sunda, above the ghauts. Its rough, very thick bark is studded with grains of a bright coloured resin, and it yields, on incision, the mattipal resin. The bark, resin and fruit are used in native medicine.—*Ainslie. Wight. Gibson. Useful Plants.*

AILANTHUS GLANDULOSA. DESF. [illegible] tree of China and the Moluccas.

AIMAK, a Mongolian, Mantchu and Tu[illegible] word meaning a tribe. Of these, there are [illegible] Kabul and Persia four tribes, the Char Aim[illegible] They dwell to the north of Herat and Ka[illegible] in the range of the undulating country which in some places assumes a mountainous in others a hilly character, and in some parts is well watered, in others bleak and rough, forming a water-shed of two natural divisions from the western of which flows the Murghab, the Tejend and the Farrah-rud, and from the eastern, the Helmund, the south-eastern feeders of the Oxus and the N. Western feeders of the Kabul river. It is said that Timur, exasperated at the depredations committed by the people inhabiting Mazanderan, south of the Caspian, transported the whole of them into the mountains situated between India and Persia. The descendants of that people form a small tribe of Eimaks known under the appellation of Firoz Kohi, after the city of that name (situated about sixty-three miles from Teheran), where they were defeated and taken capture by Timur. According to Latham, the Aimak are of the Sunni sect of mahomedans, and are in number four, viz, the Timuni, the Huzara, the Zuri and the Timuri. The Timuri and the Hazara lie beyond the boundaries of Kabul and are subject to Persia. Vambery says that the four tribes are the Timuri, Teimeni, Feroz, Kohi and Jamshidi, and that the whole are of Iranian origin and speak Persian. The Timuri dwell about Gorian and Kah'san, the

Teimeni from Karrukh to Sabzwar: the Feroz Kohi near Kale No, and the Jamshidi have the shores of the Murghab. In their reverence for fire, their respect to the east to which their tent doors look, they retain many of the fire-worshipping views. The Aimak tents are Turk, those of the Timuri are Afghan. They live in well fortified castles but in tents rather than houses, prefer a despotic government, eat horse flesh, and mix the flour of a nut called Khundzik (chesnut ?) with that of their wheat. The Aimak settled in the 13th century and their number is estimated at 400,000.—*Latham's Descriptive Ethnology, Ferrier's Hist. of Afghans, p.* 3. *Vambery's. Sketches of Central Asia.*

AIMANT. FR. Loadstone.

A'IN-I-AKBARI. PERS. From A'in, a law, and Akbar, the name of the Emperor who framed this code of regulations. See Akbar. See Suhogum.

AIN. MAR. also Arjun MAR. Syn. of Pentaptera arjuna. P. tomentosa and P. glabra *p.* 18-9.

AINDRA-JALIKA. HIND. Conjuring is so called from Indra 'the Hindu deity;' and Jala 'a net.'—*Hind. Theat. Vol. II. p.* 306.

AINDRI, the Sacti of Indra. See Sacti.

AING. BURM. Dipterocarpus alatus.

AINKUDI KUMMALAR. The five artizan [illegible]tes of Malabar. See Kummalar.

AINO. The aboriginal races of Yezo, whose severe treatment by the Japanese, has led them to other countries, and they also occupy the southern part of the island of Seghalin, which is in possession of the Japanese. They are despised in Japan. Their number does not today exceed 80,000; they are strong and muscular, but they are despised as Jews are by the Arabs. The women are handsome, have a profusion of black flowing hair, but their appearance is not cleanly, their lips are tattooed beautifully blue. They do not speak Japanese; and servants from Hakodate connot converse with them.—*Hodgson's Nagasaki, p.* 52. See Amoor, India: Kurilians.

AINSLIE, DR. Sir Whitelaw, a Madras medical officer, who wrote observations on Cholera Morbus. 1 Vol. 8vo.;—On atmospherical influence. Lond. As. Trans. Vol. I. p. 378;—On the climate of Seringapatam, As. Jl. 1835, Vol. XIX. pp. 25—34;—Materia Medica Indica, Madras, 1 Vol. 4to.; 2nd Ed. Lond. 2 Vols.;—Remarks on climate and diseases of Eastern Regions, Lon. As. Trans. Vols. II. p. 13; III. p. 55.—*Dr. Buist's Catalogue.*

AIOU or YOWL, a group of 16 low circular islands on the W. Coast of New Guinea, and 30 miles N. E. from the island of Waygiou in the Gillolo Passage. The largest lies in about lat. 0° 25' N. long. 131° 0' E. The group is surrounded by a coral reef, nearly a degree in circumference, the south-western portion of which is separated from the main reef by a narrow but deep channel. Aiou Baba, the largest of the group, and of chief resort lies on this detached portion of the reef, and is about 7 miles round and 500 feet in elevation: The north-eastern or larger reef, contains the islands of Abdon and Konibar, with several coral islets, and is said to have an opening on the N. W. side which admits large vessels within the reef. The inhabitants are Papuans, few in number and occupied almost exclusively in fishing and in catching turtle, with which the lagoons within the reef abound. The chief exports are tortoise—shell of good quality, which is obtained here in large quantities, and trepang. These are purchased by Chinese and sometimes European traders from Ternate, in Moluccas, the king of which place assumes supreme authority over all those parts of the coast of New Guinea which his subjects have been in the habit of visiting for purposes of trade. The traders to Aiou all employ small vessels, which alone are adapted for going within the reef of Aiou-Baba, their chief resort. They bring red and white calicoes, thick brass wire, old clothes, glass beads, and all sorts of ornamental finery in which the negroes of New Guinea delight, as much as those of Africa. The natives, are tolerably friendly to strangers, but are inclined to be treacherous and revengeful, which is the character indeed, of all the Papuan tribes. A vessel visiting these islands for purposes of trade should always be provided with a native of Ternate or Tidore to act as pilot and interpreter.—*Journal Ind. Arch. Horsb.*

AINO-JAPANESIA. A name proposed by Mr. Logan to designate all the Japanese and Aino Islands from Formosa to Kamtos-chatka. See India.

AIR	ENG.	Air Atmospherique..	FR.
Lay	BURM.	Howa	HIND. PERS.

AIR. Amongst the mahomedan races of India the air and the water together, Ab-o-howa, are reckoned to constitute climate. Amongst hindus, the water alone is regarded as the agent acting on the climate.

AIRAPADAM, in hindu mythology, the name of one of the elephants who support the earth, his image is placed in the temples of Vishnu, of a white color, having four tusks, his body loaded with trinkets and magnificently dressed.—*Sonnerat's Voyage, p.* 189.

AIRAVATI, the elephant vahan of Indra.

AIR BLADDER of certain fish is in much request as an article of diet and in the arts. It is a white membrane close against the spine, known also as the sound or swim. Russian Isinglass is prepared from the sounds of the sturgeon, *Accipenser sturio,* found in the Caspian and

Black Seas and their tributary rivers. In America, from the *Labrus squeteague*, the intestines of the cod, *Morrhua vulgaris*: in Calcutta, from the sounds of the Polynemus sela, the *Salea* of Bengal and the sounds of two Madras fish, the *Korwa*, and *Katali*, Tam., are so employed, and they are largely exported to China.—*O'Shaughnessy p.* 68.

AIRUN, a temple in Bhopal built in the first year of the reign of raja Tarapain, by Dyanya Vishnu, the confidential minister and brother of raja Matri Vishnu. The inscription is the first in honour of the boar incarnation of Vishnu and the boar coins probably belonged to this family of princes, who worshipped Vishnu as the Boar. In the inscription, the minister Dyanya or Dhanya obtained his office by public election, and through the grace of God! Dhanya is called a Rishi amongst the Brahmans and the devoted worshipper of Bhagavan; but there is not any preposterous eulogy of Brahmans. The language of the inscriptions is Sanscrit but with words written corruptly, and probably about the 8th century of the Christian Era. The character used in the inscriptions is that subsequent to Kanouj Nagari, or Allahabad, but before the Gaur or Harsha character. Another inscription is on a pillar in front of the temple, the King mentioned is Budha Gupta, who governed the country between the Jumna and the Narmada. The pillar was raised, at the expense of Dhanya Vishnu, before the temple of the preceding inscription, by Vaidala Vishnu, who had been elected to the regency. The notice of a new Gupta, and a date of the dynasty, 165, is of great interest, as Buddha Gupta necessarily followed those mentioned on the Allahabad and Bhitari columns, and up to Buddha Gupta's time, if he belonged to the Kanouj dynasty, its duration had been only 165 years. In the early part of the fifth century, A. D., FaHian found a buddhist king at Kanouj; and in the early part of the seventh century Huian Thsang found a hindu king reigning. The dynasties, therefore, had been changed between the fifth and seventh centuries, and the Gupta family had sprung up in the interval—*Ben. As. Soc. Vol.* VII, *p.* 634.

AJAIB-UL-MAKHLUKAT, a book on natural history.

AJAM, Arab. This word literally means foreign; but, in the southern part of Arabia, Al Ajam is applied to the opposite part of the coast of Africa. Ajam by the Turks means Turkish Arabia. Persia is Bald-ul-Ajam, and the north-eastern coast of Africa, is Bar-el-Ajam. The Arabs divide the world into two great bodies, first themselves, and, secondly, "Ajami," *i. e.* all that are not Arabs. Similar bi-partitions are the hindus and mhlechas, the Jews and Gentiles, the Greeks and Barbarians, &c., &c., *Playfair's Aden.—Burton's Pilgrimage to Mecca, Vol. II. p.* 26.

AJAMODA. Sans. Parsley.

AJATA SATRA, king of Magadha who collected the remains of SakyaMuni and deposited them in one large stupa at Raja Griha. He reigned for 32 years and died B. C 526. His race were Bhattiya brahmans. See Buddha: Chinese.

AJATASWARA. A king of Magadha, in the eighth year of whose reign Sakya became eminent. See Chinese.

AJETAS. A Papuan or a Negrito race in the Phillippines, Negros, Mindanao, Mindoro and Luzon. See Ahetas.

AJGARA. Sans. A. python.

AJI A river of Iran.

AJIPALA, one of the Chohan dynasty who founded Ajmir. A. D. 145.

AJIT SINGH. A celebrated king of Kanouj who was murdered, A. D. 1680. See Rahtor.

AJMOD. اجمود Sans. Apium involucratum also Petroselinum sativum, parsley.

AJOOWAN. Beng. Lovage, Ligusticum ajowan.

AJO SATIVO. Sp. Garlic.

AJUGA DEALSINGHI (perhaps A. reptans; A. fruticosa, or A. chamœpytes) from the lower ranges of the Himalayas where it is given in quartain ague.—*Honigberger.* See Anisomeles.

AJUGA DECUMBENS, Don. Hills of Cashmere, where, from its manifold virtues, it is called jan-i-adm, *i. e.* the life of man. Given in tormina and inflammation of the gums.—*Honigberger.*

AJUGA FRUTICOSA. *Roxb.* Syn. of Anisomeles Malabarica.

AJMA. Hind. Perhaps, Ptychotis ajwain.

AJMIR, the capital town of a small territory in Rajputanah ruled by Chouhan Rajputs. Ajipala of this race founded it in A. D. 145, and it was lost to the Mahomedans by Dola Rai in A. D. 1024 to Mahmud of Ghazni. The territory is also styled Rajasthan. There is an artificial lake near L. 74° 52' E. See Chohan; India; Inscriptions; Kattyawar. Khetri Lakes; Rajputs.

AJUNTA in the province of Arungabad, is celebrated for its Buddhist and Jaina Vihara or monastery and caves. The Chaitya cave is supposed to be the oldest in India. One of the Chaitya caves there has the dagopa perfect, with the tee with the three umbrellas in stone. The great structural dagopas are generally shorn of this appendage, which is the origin of the three and nine storied towers of China. One of the Viharas at Ajunta looks more like the brahmanical caves at Ellora than a Buddhist Vihara. Its pillars have similar cushion capitals to those in Elephanta and at Ellora. The Ajunta, are the most complete series of Buddhist caves in India, without any mixture of Bramanism and contain types of all the rest. some are elaborately carved.

The Ajunta caves are in the northern face of a ravine, which has a westerly direction parallel to the face of the ghauts, as they overlook Kandesh. There are many ravines or koras near; one of these commences at the town of Ajunta and winds to the south and west for about 3 miles opening there into Kandesh. Near its mouth is another ravine taking a westerly direction, for two miles with several windings, at one of which, on the northern face of the rock these caves have been excavated. This ravine, no where exceeds 400 yards from brink to brink, above five hundred yards at its bottom. Ajunta is the only town of any size near, but it too is quite a small place, walled, with gates, and a bridge.

Major R. Gill, of the Madras Army continued drawing and photographing these caves for nearly 30 years, sometimes residing in a cave for days. He built a house at Fardapoor, now the travellers bungalow, but latterly he resides at Ajunta. The natives call the caves verrula, the same name as they give to those which Europeans call Ellora. The hindus call them also Lena, and both terms mean drawings.

The caves are about 25 in number, several of them have fallen in, many have been injured by the percolating water, and all have a noisome damp smell, with the nauseous odour of bats, which in the larger caves are multitudinous.

The ordinary form is a central hall, with a walk around the wall, separated from the hall by pillars. A single door-way leads to the interior and opposite it is a recess, in which Buddha is seated preaching. In that are numerous figures seated in almost similar attitudes. The walls also have sculptured figures and arabesques, as have also the lintels of the doors, and the tops of the pillars. There are innumerable figures of men and women standing upright, and sitting, and those on the tops of the pillars seem to be soaring. In the ghat of the Taptee at Baug, on the north side of the valley of the Taptee, are three ancient Buddhist caves. See Adjunta ; Cave Temples.

AJWAIN SEED.

Amoss	...Ar.	Ajwain ...	..Hind.
Asma	...Guz.	Ajma... ...	...Mahr.
Juvani	...Beng.	Nan-khoah...	...Pers.
Amus	...Arab.		

In Hindustan, ajwain is the seed of Ligusticum ajowain, *Roxb*. The Plychotis ajwan D. C. In the Dekhan it is used as the name of Anethum sowa or Bishops' Weed. The Korassani ajwain is wholly different, being the seeds of the henbane and poisonous. The small fruit or seed possesses an aromatic smell and rather warm pungent taste. The plant is known everywhere in India, and P. sylvestris, Royle, is the Arab ajwain called by the Persians Nan-khoah, largely used as a carminative and in flatulent colic, and, Honigberger states, in stoppage of urine. It is propagated by seed and grown in square beds; in the Dekhan, the seed is sown in September and October, and sold at five pice the seer, the plant is grown by the Native gardeners for the seed only, which is used in curries. Care must be taken not to confound, under the native names, the seed of the Ptychotis ajwain with those of the poisonous Khorasanee Ajwain which are the seeds of the hyosciamus or henbane. The Ptychotis ajwain seeds are very small, stalked, conical, pointed, streaked with yellow stripes, and stalks of the seeds of a bright-yellow. Henbane seed is grey, not ribbed or streaked, shape obscurely triangular, and flattened, surface rough and dotted. Other seeds, especially of umbelliferous plants, are sold under both these names.—*O'Shaughnessy. Fleming. Faulkner. Honigberger. Riddell. O'Shaughnessy.*

AK also AKH. اک also AL. ال Duk. Hind. Calotropis gigantea; also Morinda citrifolia, *Linn.* See Madar.

AKA, tribes occupying the western extremity of the hills which form the northern boundary of Assam. See India.

AKA. Turk. a chief, an Agha.

AKABA, a gulf at the N. E. part of the Red Sea : also, the town there.

AKAD, a city of Assyria. See Babel.

AKAJU-NUSSE. Ger. also Westindische anakarden. Ger. Cashew nut.

AKAKALIS. Greek. Cassia absus, also an inspissated cold extract of the leaves of the Acacia vera.

AKAKIYA. Hind. A red stone brought to Ajmire from Delhi containing iron; used as a tonic, in the dose of one tola: one seer for two rupees.—*Genl. Med. Top. p.* 125.

AKAKIAH. Arab. اقاقيه It is spoken of both by Hippocrates and Dioscorides. It is an extract from the fruit of the Acacia vera, or from its leaves, which are pounded and the juice inspissated. The inspissated juice of the sloe, Prunus spinosa, is substituted for the ancient Akakia. The Akakia is not now used in medicine of Europe.

AKAL, Sansc. from "a" privative and "kal," death, meaning immortal.

AKALI, armed Sikhs; religious devotees and fanatics, violent, and ignorant. They were first established by the guru Govinda, the founder of the Sikh faith, and they zealously supported him against the innovations of the ascetic Banda, the byragi. Their Boonga or temple, on the side of the holy reservoir at Amratsir, at Lahore, is a fine building, but others are met with all over the Punjab, though chiefly in the Manja territory, between Lahore and the Gharra, where Tarantara is their chief town. A considerable number are settled at Nandair on the banks of the Godavery but are quiet and peaceable. In reality wealthy, they affect poverty and beg; but, in the time of the Sikh rule, their begging was an insolent demanding, and as they were a bold united body who made common cause, and did not scruple to expose their own lives or to make false accusations of crimes, these wild looking men enforced their demands with an insolent independence, which those only could understand who have witnessed a band of drunken Akali, almost in a state of nudity, brandishing their naked swords, and bawling out abusive and obscene language: their power to enforce their demands therefore was very great. They particularly showered their angry words on Europeans; but, until Ranjit Singh mastered them, even his life was several times in da[illegible] Under the British rule, and with power [illegible] oleration, they are never heard of. [illegible] extort alms from chiefs and others, by interdicting them from the performance of religious rights, and a chief unpopular with the Akalis, who made common cause with each other, risked his authority. Their name is derived from Akalipurusha, 'Worshippers of the Eternal,' the word Akal being a compound of kal, 'death,' and the privative 'a' meaning 'never-dying,' or 'immortal.' It is one of the epithets of the Deity, and is given to this class from their frequently exclaiming "Akal, Akal," in their devotions. They wear blue chequered dresses, and bracelets of steel round their wrists, which all Sikhs do not wear; though it is indispensable for a Sikh to have steel about the person, and it is generally in the shape of a knife or dagger. They formerly initiated converts, and had almost the sole direction of the religious ceremonies at Amritsur. The Akalis had a great interest in maintaining the religion and government of the Sikhs, as established by guru Govind, upon which their influence depended. They often went profusely armed, with half a dozen swords; perhaps also a matchlock, and several steel discs on their turbans.—*Masson's Journeys, Vol. I. p.* 451. *Mohun Lals Journeys p.* 9. *History of the Punjab, Vol. I. p.* 130, 131. *Steinbach's Panjab p.* 8-9. *Malcolm's Sikhs, p.* 116. *Ward's View of the Hindus, Vol. II. p.* 273-4. *As. Res. Vol. XI. McGregor's History of the Sikhs, Vol. I. p.* 81, *p.* 236-237. See Amratsur; Banda; Boonga; Discs; Manja; Sikhs; Tarantara.

AKA-PODWAL, a caste in Malabar and Canara who follow the rule of Marumakatayam, or descent from mothers, the descensus ab utero of the Locrians, who drove the Sicilians out of a part of Italy. See Polyandry.

AKAR-CHIRIT-MURAI. Malay. A plant yielding an elastic gum.

AKAR-KANTA. Hind. Alangium decapetalum.

AKARKARA. Hind. Pers. The roots of two species of Anacyclus, A. pyrethrum and A. officinarum.

AKARKOUF, the ground around the ruined pile called by the Arabs Tall Namrud, and by the Turks Namrud Tapassi. Both these terms mean the hill, not the tower, of Nimrod and the term Akarkouff or Agargouf given by the Arabs, is intended to signify the ground, only, around it. It is about 9 miles from Baghdad.—*Porter's Travels, Vol. II. p.* 281. *Mignan's Travels, p.* 102. See Namrud.

AKAS. Arab. عقاس A hoop of a black colour, worn by the Hodelyah Arabs, to retain the dark colored square of cloth on the head. The outer rim is inlaid with pieces of delicately engraved mother-of-pearl, rather larger than a shilling.—*Hamilton's Sanai.*

AKASA GARUDA GADDA, also Muru donda ఆకాశగరుడగడ్డ. Bryonia epigœa. *Rottl.* B. glabra, *R.* iii. 725. This name is more used in the S. Telugu districts.

AKASALINGA. Kar. Goldsmith.

AKASAM. See Acasanavi; Hindoo.

AKASANANCHYAYATANA, in Buddhism, the lowest of the incorporeal Brahma-lokas.—*Hyder's Eastern Monachism, p.* 433.

AKASA TAMARA, also (Antara tamara.) ఆకాశతామర, also (అంతరతామర.) Pistia stratiotes, *L.*—*R. iii.* 131.

AKASH BULLI. Beng. Cassyta filiformis. *Linn.*

AKAS KUKHI. See Hindoo.

AKAS-MUKHI. Sans. from akas, the sky and mukha the face, religious, ascetic mendicants, among the Saiva hindoos, who hold up their faces to the sky, till the muscles of the back of the neck become contracted and retain that position. See Urdha bahu.

AKATS-JA BULLI. Maleal. Cass[illegible]liformis.—*Linn.*

AKBAR, Jalal-ud-din Mah[illegible], reigned in India from A. D[illegible]e was grandson of the emperor [illegible]venth in descent from Timur. H[illegible]e eldest son of the emperor Hamayun [illegible] was born at Amirkot, in the valley of the Indus, on the 14th October 1542, while his father was in exile. Hamayun re-gained the throne in 1555 and died a few months later. Akbar in the course of his reign extended his sway over Rajputanah, and from Afghanistan to Ahmednuggur in the Dekhan and from the Suliman mountains on the west to Bengal and Assam in the east. He was an enlightened monarch who introduced religious tolerations, equal justice, encouraged literature, arts and science, and the Ain-i-Akbari or institutes of Akbar, a revenue work, was compiled under his orders. Akbar was succeeded by Jehangeer, Shah Jahan, and Aurungzib. Prior to this sovereign, of all the dynasties that had yet ruled in India, that of the house of Timur was the weakest and most insecure in its foundations. The houses of Ghazni and Ghor depended on their native kingdoms which were contiguous to their Indian conquest: and the slave dynasties were supported by the national influx of their countrymen: but though Baber had been in some measure naturalized in Cabul, the separation of that country under Kamran had broken its connection with India, and the rival of an Affghan dynasty turned the most warlike part of its inhabitants as well as of the Indian mahomedans into enemies. Colonel Tod remarks (Rajasthan Vol. I. p. 522) that it affords an example of the hindu doctrine of the metempsychosis, as well as of the regard which Akbar's toleration had obtained him, that they held his body to be animated by the soul of a celebrated hindu gymnosophist: in support of which they say, he (Akbar) went to his accustomed spot of penance (*tapasya*) at the confluence of the Yamuna and Ganges, and excavated the implements, viz., the tongs, gourd, and deer-skin, of his anchorite existence. Assuredly says Elliot a more extraordinary man never sat on the throne of India. Brought up as a mahomedan, he was a rationalist and deist, and never believed anything, as he himself declared, that he could not understand. The religion which he founded, the so-called Ilahi religion, was pure deism mixed up with the worship of the sun as the purest and highest emblem of the deity. Though Akbar himself could neither read nor write, his court was the home of literary men of all persuasions. Whatever book, in any language, promised to throw light on the problems nearest to the Emperor's heart, he ordered to be translated into Persian. Leedes, the adventurous English merchant, vi[illegible] Akbar's court and one of his four c[illegible]s entered the Emperor's service. [illegible]hed all arbitrary land taxes and [illegible] according to the values of the [illegible]s, fallow, out of cultivation, in rotati[illegible], middling and bad lands and over-flooded [illegible]nds. It was in his reign that his physician, Budyn, introduced the rhinoplastic operation for restoring the nose, and he bestowed on Budyn, a jaghire at Kangra. The Fasli or harvest era of Northern India has been traced to the year of Akbar's succession to the throne, the 2nd of Rabbi-us-sani, A. H. 963, A. D. 14th February 1556. The first mention of thugs, occurs in his time, for 500 were executed at Etawah. In his invasion of Kashmir, he was opposed by the warrior pastoral race of Gulu-wan.—*Elliot, Historians of India*, p. 248. *Tod*. See Fasli; Guluban; Kangra Khiraj; Leedes; Thugs.

AKCHEE. Pers. See Andkho.

AKEEK. Guz. Hind. عقیق Pers-Cornelian; Calcedony.

AKESINES, the Greek term for the river Chenab. See Chenab.

AKH-KA-JHAR, MADAR. Hind. آک کا جهاڑ Calotropis gigantea.

AKHARWAI a division of the Kurmi tribe.

A-KHASSA a region described by Ptolemy, the snowy land of Ladak. See *Kha*-changul.

AKHBAR. Ar. Pl. News Akhbar-kaghaz, newspaper. Khalassat-al-akhbar, the summary of news, a work by Khond Amir. See Khond Amir.

AKHIRI-CHAR SHAMBAH, A feast held amongst mahomedans on the last Wednesday of their second month Saffur.

AKHOOND, the high priest of the Swat tribe. See Khyber.

AKHOZYE, an Afghan tribe in the valley of Kabul. See Afghan.

AKHROT. Maleal. Sans. fruit of Aleurites triloba also Hind. the walnut or Juglans regia.

AKI, the Lignum vitæ of New Zealand, it is the Metrosideros buxifolia, and is a rambling shrub climbing by means of its lateral roots to the highest trees. See Metrosideros.

AKINCHANYAYATANA in Buddhism, the third of the incorporeal Brahma-lokas.—*Hyder's Easter Monachism*, *p*. 433.

"AKINDO," the Japanese name for merchant. In Japan the "akindo" are not permitted to ride on horseback, and with astonishment the officials see British merchants galloping about.—*Hodgson's Nagasaki*, *p*. 12.

AKIT, it is a drink in use by the Arabs but has different names in all parts of Arabia; even in the Hejaz it is known by the name of Mazir, as well as "Iqt," (a corruption of Akit). When very sour, it is called "Saribah," and when dried, without boiling, "Jamidah." The Arabs make it by evaporating the serous part of the milk, the remainder is then formed into cakes or lumps with the hand, and spread upon hair cloth to dry. They eat it with clarified butter, and drink it dissolved in water. It is considered by the Arab a cooling and refreshing beverage, but boasts few attractions to the stranger. The Beluchi and wild Sindhian tribes call this preparation of milk "krut" or kurut and make it in the same way as the Bedouins. It is perhaps the source of the English word curds. *Burton's Pilgrimage to Meccah, Vol. I. p.* 362.

AKKARAKARAM. Tam. அக்காரகாரம் Pellitory. Anthemis pyrethrum.

AKKARAPUTTA. Sing. Pellitory; Anthemis pyrethrum.

AKKUSH. Beng. Rottlera laccifera.

AKKYE, or Ryot Laut, the subjects of the sea, a litoral race in Quedah who dwell on the shores and islets of the Peninsula. See Kedah or Quedah.

AKO, a hill tribe in Assam. See India.

AKOLA. HIND. SANS. اکولا Alangium decapetalum : also A. hexapetalum.

AKOLA, L.24° 42N, & L 77°1'E. in Berar is built on an open plain near the Murna, the mean height of the plain according to Cullen being 808 ft. The tower of Akolah is built on a hill of green-stone amygdaloid overlooking the Murna river and presents the appearance of a citadel, indeed there is a small curtain at the top, and the whole town is surrounded by a curtain with bastions, which have been recommended to be removed. Akolah has the railway within two miles of it, and is now the chief Civil station of West Berar, in the Hyderabad Assigned Territories.—*Balfour.*

AKOMANO, a name of Ahraman. See Ahraman ; Zoroaster.

AKOND. SANS. Calotropis gigantea.

AKORA, a Hindu monastery. See Asthol, also Math.—*Balfour.*

AKROT. ARAB. اکروت | GUZ. اخروت | PERS. HIND. MAL. and BENG. Walnut, Juglans regia ; also the seed of Aleurites triloba.

AKSU, a river near Kifri in Kurdustan. See Kifri.

AKU. TEL. a leaf. Akulu. pl. leaves.

AKU JEMUDU or CHEMUDU ఆకు-జెముడు : చెముడు. Euphorbiănivulia. *Buch.* E. nereifolia. *L.*—*R.* ii. 467.

AKUILA-SEMUN-I-RUMI. ARAB Opobalsam.

AKULKURRA, GUZ. HIND. Pellitory ; Anthemis pyrethrum. See Akarkara.

AKULMUHT. HIND. Cæsalpinia bonducella.

AKULU. TEL. Elle. TAM. The leaves used by hindus as platters. They are made of the plantain leaf, Walăelle. TAM. Ariti aku. TEL. and leaves of the Banyan tree, Mari aku, TEL. Alielle. TAM. also of Butea frondosa.—*Balfour.*

AKUND. BENG. Calotropis gigantea. *Brown.* Calotropis liliacea.

AKU PATRIKAM, TEL. ఆకుపత్రికం, leaves of Cinnamomum eucalyptoides, *Nees*—C. Malabathrum. *R.* ii. 297.—*O'Sh.* 539. The leaves are used as a spice and medicinally.

AKUSALA, in buddhism demerit, constituent of "a" privative and Karma.—*Hyder's Eastern Monachism, p.* 438.

AKUT CHUNI. Small rubies or garnets, brought via Pali to Ajmere and used as an aphrodisiac : one tola for two rupees.—*Genl. Med. Top. p.* 125. See Yakut.

AKYAB. The chief town in Arracan, on the right bank of a rapid river. It is the seat of a Commissioner. The European part is beautifully laid out.—*Balfour.*

AK-YAU. BURM. Wood aloes.

AL OR AACH. BENG. آل HIND. MAR. Morinda citrifolia.—*Linn.*

AL, in Kabul, a fabulous, præternatural being, resembling a woman of twenty years of age, named the Ghoul in Persia and Turkey. The Persian women attribute the disasters of parturient women to her malevolence.—*Richard F. Burton's Sindh, p.* 399.

ALABANDIC CARBUNCLES of Pliny, a kind of garnet, q. v.

ALABASTER, the αλαβαστρος of the Greeks, from Alabastron, a village in Egypt. It is a hydrous sulphate of lime in a peculiar crystalline state, sometimes quite pure, sometimes containing small quantities of carbon or iron. It is very abundant in nature, and when pure is of spotless white and in texture and colour is almost unrivalled amongst minerals. It is found to a large extent in lower Egypt, and perhaps this is alluded to in 2nd Kings xxi and 13. It is said to occur in the Boogtee Hills near Jacobabad. It is not known to occur in India proper, the images of the Burmese being from a stalagtitic carbonate or granular carbonate of lime, though commonly called alabaster.

It is of two kinds, a carbonate and a sulphate of lime. The finest alabasters are from near Volterra in Tuscany : between Cecina and Leghorn. An inferior kind occurs near Derby in England, at Mont Martre near Paris and in the Tyrolese, Swiss and Italian Alps.—*Mason. Tomlin. Balfour.* See Gypsum.

AL' ABBAS. This race reigned as khalifs, in Baghdad from A. D. 749-50 to A. D. 1258-9, when Baghdad was besieged and taken by the Ali-Khan, grandson of Jenghis Khan and its reigning Khalif, Mustasem, put to death. Ali Khan is the Hulagu of western authors.—*T. Prinsep, p.* 304.

ALABU. BENG. Bottle-gourd, Lagenaria vulgaris.

ALABUVU, S. or Anapa kaya. అలాబువు-అనపకాయ. Lagenaria vulgaris, *Ser.*

ALACA, in hindu mythology, the splendid palace of Kuvera, the god of wealth.

ALACHANDALU also Bobbarlu, అలచందలు-బొబ్బర్లు. Dolichos sinensis—*L. W. & A.* 771, *R.* iii. 302, and D. catjang 303.

ALACHATA also Talantu tige, అలచాట-తలంటుతీగె. Ipomæa dentata. *Willd.*—*R.* i. 477. I. chrysoides.—*W. Ic.* 157.

ALACNUNDA, a stream near Kedarnath, which joins the Bhagaratti near Ruder-prague.—*Fraser's Him. Mount, p.* 381.

ALAGILI-GHITSA. TEL. [illegible] Crotalaria verrucosa. *Linn.*

ALAKH, the cry or call of the Gudara beggars. See Gudara. Alakh nami.

ALAKHNAMI, a class of Saiva mendicants; Professor Wilson says the Alakh-nami mendicant is a worshipper of the Alakshya, the indefinable god, and Nama a name. See Sanyasi.

ALALI MARA. CAN. Terminalia chebula.

ALAM. AR. a flag, a flag-staff; a standard, a prop.

ALA MARAM. TAM. ஆலமரம். Ficus Indica.

ALAMO. SP. Poplar.

ALAMPRA, a Burmese monarch, who in 1755 founded or re-built Rangoon.

ALAN (liang) a Chinese weight, containing about 8¼ zolotnicks.

ALANDADI? a class of slaves in Tamil countries.

ALANGI. TAM. அலங்கி. Alangium decapetalum. Vahl.

ALANGIUM DECAPETALUM. *Lam.*

A. Lamarckii. *Thw.*
Alangium hexapetalum. *Roxb Fl. p.* ii. 502.
Alangium tomentosum. *Lam. D. C*

Bagh-ankra	..	BENG.	Ankolamu	...	SANS
Anisaruli mara..		CAN.	Ankola	...	,,
Sage leaved alangium ..	...	ENG	Nieo-chaka	...	,,
			Eepaatta	...	SINGH.
Akola ..	...	HIND.	Ankolamu	...	TEL.
Ankulo	...	MAHR.	Uduga	..	,,
Ankul...	..	,,	Udugu	..	,,
Angolam	..	[illegible]	Ankola	...	SANS.
Akarkanta	...	[illegible]	[illegible]param...		TAM.
Kara Angolam	[illegible]				

This is a small [illegible] rocky places in the hotter and dryer p[illegible]eylon, in Coimbatore, in Cochin and M[illegible] and throughout the Peninsula of India. It grows in Guzerat, is common, on the Bombay side, both in the open country and in some of the jungles towards the coast, but, there, it is less a jungle tree than one found in hedges and village lanes. It grows in the Khassia hills, and in Assam up to the base of the Himalaya, and is found in the Malay Peninsula and in Cochin-China. The wood is said by Dr. Roxburgh to be beautiful, and in Dr. Wight's experiments, he found it sustain a weight of [illegible]lbs., but neither Dr. Wight nor Dr. Gibson had ever seen a ten inch plank, and Mr. Rohde says it wants size; Captain Beddome, however, describes it as an ornamental, beautiful wood, attaining a fair size in the forests of the Godavery and Circars. The astringent fruit is eaten by the Natives, its roots are aromatic and used in Native medicine in snake bites. —*Mr. Jaffrey, Roxb.* ii. 502. *Drs. Wight and Gibson. Mr. Elliot. Voigt. p.* 40. *M. E. J. Rep. Mr. Rohde. Useful Plants. Captain Beddome. Thwaites, En. Pl. Zeyl.* ii. *p.* 133.

ALANGIUM GLANDULOSUM, *Thw.*; A small tree of the central province of Ceylon, grows at an elevation of 2,000 to 4,000 feet.—*Thw. En. Pl. Zeyl.* ii. *p.* 133.

ALANGIUM HEXAPETALUM. *L.*

Akarkanta?	...	BENG.	Unkotha	...	SANS.
Akola	...	HIND.	Niesechaka	...	,,
Ankulo	...	MAHR.	Wuduga	..	TEL.
Kara-Angolam		MALEAL.	Uduga	...	,,

This tree is said to grow in Burmah, Coromandel, Malabar, Gumsoor, Ganjam, Bengal and Allahabad. According to Captain Macdonald it attains an extreme height of 30 feet, with a circumference of 2¼ feet, the height from the ground to the intersection of the first branch being 12 feet. In Ganjam and Gumsoor the leading bull in a herd of buffaloes, has a wooden bell called "Lodoko" attached to its neck which is heard at a great distance in the jungle, and it is always made of this peculiarly sonorous wood.—*Rohde. Mss. Captain Macdonald in M. E. Proceedings. Useful Plants.*

ALANGIUM TOMENTOSUM. D. C. Syn. of Alangium decapetalum.

ALANTWURZEL. GER. Elecampane.

ALAOS river, a tributary of the Ganges, and the ancient Palabroth[illegible] built at the junction. The Alaos was also called the Erranboas.

ALA PALA. ఆలపాల. TEL. Pergularia pallida, *W. & A. contr* 42; *Ic.* 585 —Asclep. pal. *R.* ii. 48.

AL ARAB AL ARABA, pure Arabs, the descendents of Kahtan or Joktan, the son of Heber

AL-ARAF. ARAB. The Mahomedan purgatory.

ALARANJI. TEL. అలరంజి. Convolvulus parviflorus, *Vahl.—R.* i. 471.

ALARANTU. TEL. అలరంటు. Rostellaria diffusa, *Nees.*

ALASALE. (V. Koriti chettu,) అలసాలె. (కొరితిచెట్టు.) Plecospermum spinosum. *Tric.*

ALASENDI. MAL. Dolichos catiany.

ALAT-CHANDUL. BENG. Methonica superba.

ALAUDA LEIOPUS. Hodgson. This absolutely resembles the British skylark (A. arvensis vel du[illegible]hi and wildgson), except in being smaller. [illegible] of milk "[illegible] wing 3½ to 3¾ inch, and of ta[illegible]way as t This species was long ago sent to the [illegible] Asiatic Society's museum by [illegible]*Meccagson* from Nepal; *A. gulgula* is the com[illegible] of the plains of India and of Bengal. [illegible] the latter A. leiopus may be distinguished, b[illegible] its smaller bill and longer tail. The A. [illegible]arida, Scopoli, (A. dewa, Sykes,) appears to be [illegible] A. gulgula in much abraded plumage.—*As. Soc. Jour. p.* 216, *No.* 2 *of* 1854. See [illegible]

ALA-UD-DIN, MAHOMED SHAH, son of Shaikh Shah. The latter conquered Malwa; his son, Ala-ud-din was the leader of the first mahomedan invaders of the Dekhan, and took the road of the Vindhya mountains somewhere near Chikaldah, and in A. D. 1309 he annexed Guzerat to Delhi. See Guzerat. Malwa. Sanitoria.

ALAUN. GER. Alum.

ALBA ARBOR Cajaputi tree.

AL-BAIDAWI, the chief commentator of the Koran, q. v.

ALBANIA, a country to the east of Kartelania, q v. The Albanians of Asia are supposed by M. Ruffin to have formed the basis of the present Afghans. He says that they were a warlike people, known as Aghvan or Avghan, that Afghan is a Greek word, but in consequence of their numerous revolts, they were transferred from one extremity of Persia to another and driven into Khorasan. The Albanians, says Burton are at most half Asiatic as regards manners. As in the east, generally, the host drinks of the cup, and dips his hand into the dish before his guest, for the same reason that the master of the house precedes his visitor over the threshold. Both actions denote that no treachery is possible, and to reverse them, as amongst Europeans, would be a gross breach of custom, likely to excite the liveliest suspicions.—*Chev. Bunsen. Chesney. Latham.—Burton's Pilgrimage to Meccah, Vol. I. p.* 199.

ALBANY ISLANDS, in Torres Strait, are situated a few miles to the south-east of Cape York, the N. E. extremity of Australia. They lie close to the mainland, are moderately elevated, and slightly wooded with gum trees, but covered with grass. They have long been known, and their eastern side was examined by Captain King, the celebrated Australian Hydrographer, but the strait which separates them from the main-land was surveyed by the Bramble, tender to the surveying ship "Fly," and found to be clear of dangers, with an average depth of 14 fathoms. It is suited for a harbour of refuge, and a depôt for carrying on trade with New Guinea. An opinion had long been entertained that the natives of the north eastern parts of Australia are less friendly to strangers than the other tribes of this continent, which was confirmed by the massacre of Mr. Kennedy, and the greater portion of his party, when exploring the country between Rockingham Bay and Cape York.—*Jour. Ind. Arch.*

ALBARICOQUE. SP. Armeniaca vulgaris.

ALBATROSS. Several birds with this name are familiar to all travellers in the southern seas —the common Albatross, the Diomedea exulans of Linnæus, being very common. D. fuliginosa of Latham is also to be seen, and D. chlororynchus Lath. also met with. Mariners distinguish them by other names. Diomedea exulans, *Linn.* is the wandering Albatross. The D. spadicea, is the green-bill or Nelly of sailors. D. chlororynchus, their mollymaux or yellow-bill, and D. fuliginosa, the sooty albatross.

ALBICORE, the Scomber thynnus, *Linn.* an inhabitant of the southern seas, the back is bright purple with a golden tint; eyes large and silvery, belly silvery, with a play of iridescent colours, is in length from 3 to 6 feet. —*Ben. p.* 22.

ALBINO. This variation from natural colours is met with frequently in all Asiatic countries, in Southern Asia, in Hindustan, Peninsular India, Siam, the Malay States and Eastern Archipelago, and when occurring in man it is more noticed than amongst the fairer races of Europe, because of the contrast with those around them and because of the scant apparel in use. Albino men or women are not regarded with any peculiar feelings, being familiar to all, and it is not men and women only, but in Asia, elephants, buffaloes, monkeys and crows are also met with. White crows with pink eyes, also white deer, occur in Tipperah, albino crows are not uncommon in Malabar and albino monkeys in Ceylon, but a kind of white monkey of Ceylon has been said not to be albino, though doubtless so, and one of the titles of the king of Burmah is lord of the White Elephant.—*Balfour.* See Kyans; Yule's Embassy; Madras Museum Records.

ALBIZZIA, a genus of plants into which some of the Acacias have been placed, (See Acacia elata. Ac. stipulata), an undefined species of the genus may here be noticed.

ALBIZZIA. SP. Kokoh. BURM. A tree of the northern district of Pegu, on and near the hills. The wood is valued by the natives as much as the Padouk, Pterocarpus dalbergioides, or even more so. It is used for cart-wheels, oil-presses, and canoes. In the Prome district a special tax was levied on the felling of "Kokoh" and "Padouk," under the Burmese rule. Large trees are becoming very scarce in the Irrawaddy valley, but are not uncommon in the Toungoo district.—*Cal. Cat. Ex.* 1862.

AL-BORDSH, the Haro-berzeaiti of the ancients is supposed to be on the western slope of Belur Tagh, on the high land of Pamir. See Arian.

ALBUMEN occurs abundantly in nature both amongst plants and animals, as in the white of egg; the saps and juices of vegetables and is used largely as food, and in the arts its chief value in these being its facile solidification under a moderate heat.

ALBUQUERQUE. Don Alphonzo de Albuquerque, an officer in the service of the king of Portugal, was sent to the Indies, in 1506; he took Muscat, and the Curia Muria islands and other important places on both sides of the Arabian Gulph. On the 18th February 1513, he started from India on an expedition consisting of 20 ships, manned by 1,700 Portuguese and 800 Indians, and failed in an attempt to take Aden by escalade, he afterwards wintered at the island of Kamaran, and returned from the Red Sea. He landed on Perim island, in 1513, on his return from the Red Sea, erected a high cross and called it Vera Cruz. De Barras, the historian was his companion.—*Playfair's Aden.* See De Barras; Perim.

ALBYROUNI, a cotemporary of Avicenna who served under Mahmud of Ghazni in the 11th century. He mentioned the disappearance from Ceylon, of the pearl oyster and their appearance at Sofala, in the country of the Zends. —*Tennant's Ceylon.* See Pearls.

ALCANFOR. Port. Sp. Camphor.

ALCAPPARRIS. Sp. Capers.

ALCEDO. A genus of king fishers, several of which occur in India.

AL-CEMERICUM. Eagle-wood.

ALCESTE ISLAND, is in the gulph of Pe-che-lee, near the Shan Tung promontory in lat. 37° 25' N. lon. 122° 15' E.—*Horsburgh.*

ALCIPPE NIGRIFRONS, Blyth, J. A. S XVIII. 815.

ALCIPPE NIPALENSIS, (v. Siva Nipalensis,) Hodgson, is common in the Himalaya, but local, in hilly jungles up to 4,000 feet.

ALDROVANDA VESICULOSA. *Linn.*

A. verticillata. *Roxb.* ii. 112.

Malika jhanji . . . ...Beng.

A herbaceous plant of Europe and Bengal with small white flowers.—*Wight.*

ALE. The bitter ales manufactured at Burton-upon-Trent, have for many years, been most extensively imported into India. Burton brewers have long been celebrated for their beer, and their success is generally supposed to be dependent on the quality of the well water used: but it is more probable that their fame has been acquired by the use of the best materials and employing great care in the process. On analysis, the water is found to contain a large quantity of sulphate of lime, a good deal of the sulphates of potash and magnesia, and a considerable amount of carbonate of lime; the lime and magnesia in the state of carbonate, being held in solution by carbonic acid, the excess of which is so great as to redden litmus paper. The Burton well water, therefore, is a *hard* water, and might be regarded as but ill-adapted for the purposes of brewing, but the boiling expels the excess of carbonic acid in the water, which kept the carbonates of lime and magnesia in solution: and these salts are precipitated. Again, the alkaline phosphates present in malt have the power of decomposing and precipitating sulphate of lime, phosphate of lime and a soluble alkaline sulphate being formed, and the greater part of the phosphate of lime so formed is redissolved in the acid formed during fermentation. The water, from being at first hard, thus becomes comparatively soft, and in this state is well suited for the extraction of the active properties of the malt and hops used in the manufacture of bitter beer. The water used is remarkable from its complete freedom from organic matter. The Burton ales speedily become bright and clear, never require finings to be employed; and are fit for use almost as soon as brewed. This is no doubt owing to the depurating power of lime, to the presence of which in the Burton water and its precipitation during the boiling, the transparency and brightness of the beer are attributable. An analysis shows the following results as the contents of an imperial gallon:—

	Messrs. Allsop & Sons, Brewed,		Messrs. Bass and Co. Brewed.	
	March 1854.	20th March 1851.	For Home consumption 3rd March 1852.	For Home consumption 25th Nov 1851.
	Grains.	Grains.	Grains.	Grains.
Sugar, ...	200	320	390	420
Gum, ...	2,080	2,110	3,930	2,660
Bitter Extract, ...	810	750	760	800
Total Solid, ...	3,090	3,180	5,080	3,880
Alcohol of spc. gr: 794.	3,540	3,820	3,988	3,744
Water, ...	63,370	63,600	60,937	62,376
Per centage of Alcohol ..	70·000	70 000	70·000	70 000

The above general analysis shows that the bitter beers of Messrs. Allsop and Sons, and of Messrs. Bass and Co, contain only a moderate amount of alcohol, and an unusually large quantity of bitter extract, consisting of the extract of hops. The specific gravity of their beers of various ages, was found to vary: the former from 1007 to 1020, and the latter 1008 to 1024; as a rule the solid contents and extractive matter of beer is greatest in the newest and strongest beers, and these are, to a considerable extent, indicated by the specific gravity. Dr. Hassal reports, that, after the most scrutinizing examination, microscopical, chemical and physiological, the examiners failed to detect any other ingredients than the products of malt and hops, and the constituents of pure spring water. From the pure and wholesome nature of the ingredients employed, the moderate proportion of alcohol present, and the very considerable quantity of aromatic anodyne bitter, derived from hops, contained in these beers, they tend to preserve the tone and vigour of the stomach, and conduce to the restoration of the health of that organ when in a state of weakness or debility. These bitter beers differ from all other preparations of malt, in containing a smaller amount of extractive matter, thus being less viscid and saccharine, and consequently more easy of digestion ; they resemble, indeed, from their lightness, a wine of malt rather than any ordinary fermented infusion, and they are strongly recommended by the medical profession. The various firms, under whose names beers appear in the market in India are merely agents for Messrs. Allsop and Bass. In the year 1853, there was exported from Great Britain, to Aden, British India, China, and Hongkong, 103,130 barrels of beer and ale, the declared value of which was £295,481, and the four years 1852-53 to 1855-56 inclusive, Madras imported it to the value of Rupees 16,26,009.—*Hassal*, 448. *Trade Statement. Balf. Commercial Products.*

ALECTORIA JUBATA, Kek Kieo, Ramree. This lichen is gelatinous and eaten by the natives with rice.

ALEEVEREE. TAM. Linseed. Beng. Common cress.

ALEPI, a town on the coast of Malabar, in lat. 9° 30' N. and 27 miles from Cochin, it is situated in the territories of Travancore and is a depôt for the timber from the territories of the rajah of Travancore.—*Horsburgh. Bmst.*

ALEPPO, the ancient Berrœa, is styled by the natives Haleb-us-Shabha It is 76 miles inland, from Iskanderoon in L. 36. 11. 215 N. & L. 37. 9. E. and from Antioch by the road 90 miles. It probably first rose in to importance on the destruction of Palmyra, to which it succeeded and like Palmyra it was admirably situated for the purposes of trade, so long as the communication with the east, by the desert, was the only one known and the productions of Persia and India were brought hither by caravans from Bagdad and Bassora. Aleppo stands in an open plain, encompassed at the distance of a few miles by low hills and the city is about three miles and a half in circumference surrounded by walls of hewn stone, about thirty feet high, and twenty broad. The population is estimated at about 100,000 ; Turks and Arabs, 70,000 ; Christians of all denominations, 15,000 ; Jews, 10,000 ; but this is probably three times the true census. The warlike Rhinds in Beluchistan are said to have been brought from Aleppo.—*Taylor's Saracen*, p. 213. *Robinson's Travels*, *Vol. II.* p. 353. See Kelat, p. 485, 493 and 495 of Cyc. Ind. Sup. p. II.

ALEPPO SENNA. See Cassia obovata and Cassia plants.

ALEURITES TRILOBA. FORST.
Camirium cordifolium. *Gart.*
Juglans camirium. *Lour.*

Tui Tui... ...	AUS.	Akrot ...	HIND.
Akrot .	BENG.	Hijli Badam...	„
Belgaum Walnut.	ENG.	Kamari. ...	JAVAN.
Country Walnut..	„	Akrot. ...	MALEAL.
Lumbang-nut-tree	„	Kanari ...	MALAY.
Molucca tree. ...	„	Teaily ...	TAHITI.

The Oil.
Kekune ? Lambang?
Kekui ? Lambang ?

This prolific large sized tree is a native of the Society Islands from which it was introduced into India, and a variety of it, the A Moluccensis, known to the Javanese under the name of Kamira is well known in Australia. A. triloba is now indigenous in several parts of India, the Moluccas, Java, the Malay Islands, Ceylon, plentiful near Hyderabad of the Dekhan, in the Southern Mahratta country about Belgaum, in Bengal and Assam. Almost all parts of it, are covered with a farinaceous substance, and a gummy substance exudes from the seeds (as also, it is said, from the tree itself), which is chewed by the natives of Tahiti. The quality of its wood is unknown. It has been introduced from the Moluccas into Java, where it is grown as a shade to the nutmeg plantations. In Java the cultivated nut is eaten as a fruit, and the flavour closely resembles that of the almond. The fruit of the uncultivated variety of the Canari tree produces a nut remarkable for the quantity of clear oil it contains, which is collected in large quantities by the inhabitants of the Moluccas, and is palatable and in general use for cooking and burning in lamps. In fact it there supersedes cocoanut oil, which is scarce. In Tahiti, tissues are made from the bark but its most valuable product is its fruit, which is roundish, two celled, each containing a nut, resembling in flavour the filbert or English walnut. The nuts, strung on a thin slip of bamboo are burned as a candle. They are considered aphrodisiac in the Moluccas but this can only be from the oil they contain and like other similar fruits are apt to purge and produce colic, unless roasted, or kept for a year. About 50 per cent. (or according to Simmonds 31½ Gallons of the nut yield 10 gallons,) of a useful, fine, clear, lamp oil.—*Roxb. Fl Ind. III.* 629. *Hog. p.* 657. *Voigt.* 159-*Exhib. of* 1862. *Java Cat. Madr. Ex. Jur. Reports. Jaffrey. Riddell. Useful Plants. Simmonds' Commercial Products. Agri. Hort. Soc. of India, vol. viii, p.* 220.

ALEURITES LACCIFERUM, is the Rottlera laccifera, Voigt. q. v.

ALEXANDER III., [illegible] Great, was the son of Philip [illegible] settling affairs at home, he directed his arms to the east, and in the course of eleven years, made such impressions on the countries he overran or marched through that to this day his name, cities that he built and dynasties to which he gave origin, continue. He succeeded his murdered father Philip, B. C. 336, crossed the Hellespont in 334, fought the battle of Issus, in 333; conquered Egypt in 331, and the same year defeated Darius at Gangamela,—the following year, 330, Darius was murdered by Bessus at Bactria. Alexander crossed the Indus into India in 327, reached Susa in 325, and Babylon the same year, and in 323 he died. The duration of his successes has doubtless sprung from various causes. His mode of settling the Egyptian Government is mentioned by Sharpe as the earliest instance that history has recorded of a conqueror governing a province according to its own laws, and allowing the religion of the conquered to remain as the established religion of the State; and the length of time that the Græco-Egyptian monarchy lasted, and the splendour with which it shone, prove the wisdom and humanity of the founder. This example has been copied, with equal success, in British Colonial and Indian Governments; but we do not know whether Alexander had any example to guide his views, or whether his own good sense pointed out to him the folly of those who wished to make a people open not only their gates to the garrisons, but their minds to the religious opinions of the conquerors. At any rate the highest meed of praise is due to the statesman, whoever he may have been, who first taught the world this lesson of statesmanlike wisdom and religious humanity. Except Alexander, all the great conquerors of Hindustan have sprung from the frontier provinces towards Tartary, and the northern parts of Persia, and their routes to the interior parts of the country have led through the Panjab. They have, therefore, generally penetrated into India by the way of Cabul, Candahar, and Ghizni.—(*Chatfield's Hindoostan, p.* 20, 21) a route still followed.

Major Rennel apprehends that Alexander never greatly deviated from the direct line of march, from the foot of Caucasus, or the range of mountains called Hindoo Koh, to the Indus near Puckholi, or Peucelaotis. His route from the S. E. coast of the Caspian Sea, lay through Aria, Zaranga, &c., to Arachosia, or the modern Herat, Zarang, and Arokhage, to the S. of Candahar; thence he marched towards Cabul and Ghizni, crossing mountains covered with snow. In order to chastize Bessus, who had fled into Bactria he passed the mountains between Ghorbund and Bamian, at whose foot geographers have placed the Paropamisan Alexandria, the first station, in his future march towards the Cophenes, or the Kow river.

Alexander set out from Arachotana (which seems to be admitted to be Herat), and proceeded in pursuit of one of the murderers of Darius to the royal city of the Zarangæi, which is recognised in Zarang, an ancient name for the capital of Sistan. He thence directed his march towards Bactria, and on his way received the submission of the Drangæ, the Gedrosians, and the Arachotians. He then came to the Indians bordering on the Arachotians. Through all these nations he suffered much from snow and want of provisions. He next proceeded to Caucasus, at the foot of which he founded Alexandria, and afterwards crossed the mountains into Bactria.

The Drangæ are probably the same as the Zarangæ: Arachotia is explained by Strabo to extend to the Indus, and Gedrosia certainly lay along the sea. There are two ways from Sistan to Bactria, one by Herat, and the other by the pass of Hindu Cush, north of Cabul, the mountains between those points being impassable, especially in winter, when this march took place. Alexander took the eastern road, and if he had marched direct to Bactria, as might be supposed from the proceeding passage, he could have met with no snow at any time of the year, until he got a good deal to the east of Candahar, and he must have left Gedrosia very far to his right. The murderer of whom he was in pursuit was made over to him by the Indians.

The Cabul river, therefore, must be the Cophenes, and the Indians are under the mountains between it, its upper branch (the Punjshir river) and the Indus.

The city that Alexander built in his route eastwards towards the Indus he gave his own name to, but its name and its particular site have been lost. It was called Alexandria and was near the Caucasus, and Rennell points to Bamian as the quarter in which he would place it. General Ferrier mentions that the fortified town of Herat, is supposed to have been founded by Alexander the Great, but he does not quote his authority. This city he tells us is a quadrangle of 3½ miles long on the north and south sides, and rather more on the east and west. Its extent would be immense if all the suburbs were included, particularly those stretching to the west of the town beyond the Darwazah-i-Irak. General Ferrier thinks that Alexandria was probably at Begram, 25 miles N. 15 E. from Cabul, the ruins of which are described in a memoir by Mr. Masson, in the Journal of the Asiatic Society of Calcutta, Vol. V. p. 1.

Recent travellers, Burnes, Masson, and Ferrier, met with tribes who claim a Grecian descent. According to Burnes, the Mir of Budakhshan, the chief of Darwaz in the valley of the Oxus, and the chiefs eastward of Darwaz who occupy the provinces of Kulab, Shughnan, and Wakhan north of the Oxus; also the hill states of Chitral, Gilgit and Iskardo, are all held by chiefs who claim a Grecian descent.

The whole of the princes who claim descent from Alexander are Tajiks who inhabited this country before it was overrun by Turki or Tartar tribes. The Tajiks now mahomedans regard Alexander as a prophet. The Badakshan family are fair but present nothing in form or feature resembling the Greek. They are not unlike the modern Persian, and there is a decided contrast between them, the Turk and Uzbek. Rennell takes it for granted that he crossed the Indus, at, or near the site of Attock, because it is the pass leading from the quarter of Cabul and Bijore, from whence Alexander came. As Alexander entered India at the very point where it is most easily assailed, he passed the Indus in the district of Peucelaotis (as Arrian writes the name) or Peucolaitis (according to Strabo), and Rennell supposes that he crossed the river at Attock where it was passed by subsequent conquerors. The bridge of boats which had been prepared by Hephæstion and their ally Taxiles, as described by Arrian, corresponds very nearly with that used at the present day. Boats are fixed in the stream a short distance from each other, by skeleton frameworks of wood filled with stones, and the communication is completed by planks covered with mud. Having effected his passage in the months of May, B. C. 327 he halted his army for thirty days, to refresh the soldiers, who had undergone severe service in fighting their way to the river through the warlike and ferocious tribes which inhabited the mountainous districts on the other side. This portion of India was then partitioned amongst a great number of petty princes, independent of, and often in hostility with, each other. At this critical period, two of the most powerful of these Rajas, named Taxiles and Porus, were at war, and the former, in order to crush his adversary, joined the invader. The territory of Taxiles appears to have been the Doab between the Indus and the Hydaspes (Jelum); that of Porus, who had subdued most of his neighbours, extended as far as the Hyphasis. Alexander had an army of 135,000 men, 15,000 being cavalry, with a great number of elephants. This force included a large body of hardy mercenaries from the hills west of the Indus and north of the Punjab, under a chief named Ambisares. At the head of this force he marched to the Hydaspes, which he reached in the month of August. On the other (left) side of the river, Porus was posted with 30,000 infantry, 4,000 cavalry, 200 elephants, and 300 war chariots. Alexander, finding the river much swollen by the rains, sent for boats from the Indus, which were brought overland, in the meanwhile amusing Porus by marching and counter-marching his troops along the banks of the river, as if searching for a ford. On the arrival of the boats, he passed the river at Jelalpore, 114 miles from Attock, where it is, in the rainy season, upwards of a mile broad, and never fordable. Mr. Elphinstone crossed the river at this very pass, and its features were found to tally exactly with the description given by the Greek writers. In the battle which ensued, Porus was defeated and taken prisoner. It was at this part of the Hydaspes, on its right or western bank that the conqueror, in commemoration of this event, built the cities of Nicæa and Bucephalia. He built a third city on the Acesines. After the [illegible] of Porus, Alexander marched ac[illegible] Doab between the Hydaspes and th[illegible] described as a flat and rich cou[illegible] through the territories of Porus, passed the latter river, and advanced to the Hydraotes (Ravi), where he captured Sangala, represented to be a strong city of the Cathæi (the modern Cathi), the most valiant and skilful in war of all the Indians. A body of the Cathæi was encamped before the city, which Alexander, having defeated them in a pitched battle, took and razed. Sangala is supposed to have been situated to the south-east of Lahore; and Burnes states that there are the remains of a city answering to Sangala in the vicinity south-east of that capital. From hence, the conqueror marched to the Hyphasis (Beas), whether above, or as more probable below, its junction with the Sutlej, is not quite clear. His historians do not mention the latter river, and they allude to a desert beyond the Hyphasis, which exists below the conflux of the two rivers. Here the soldiers received such appalling accounts of the deserts they would have to pass, and of the countless hosts assembled to oppose their progress, that, struck with consternation, and exhausted by fatigue and suffering, they refused to march farther, and Alexander was constrained to give orders for their return.

Some traditions of Alexander exist in the Rajpoot state of Bikanir: a ruin near Dandosir is said to be the remains of the capital of a prince of this region punished by the Macedonian conqueror.

This, therefore, was the extreme limit of Alexander's progress eastward. He recrossed successively the Hydraotes, the Acesines, and the Hydaspes, where a large fleet had been prepared for a descent of that river. The boats, 800 in number, were built of timber procured from the mountains; and Burnes says that in none of the other Punjab rivers are such trees (Deodar, a kind of cedar) floated down, nor do there exist such facilities for constructing vessels, as in the Jelum. About the middle of

November, B. C. 327, Alexander who had been in the field since May, therefore all through rainy season, embarked on board one of his vessels, and whilst the fleet, which he commanded in person, dropped down the stream two divisions of the army marched along the Hydaspes, and a third along the Acesines, to the confluence of these streams, whereafter a voyage of five days the fleet arrived much shattered. The Greek historians, as well as those of Timur describe the confluence as accompanied by terrific violence, whereas Burnes, who saw the waters at their height, says that the junction is effected "with a murmuring noise" but the velocity of the current is inconsiderable. The army was now distributed into four divisions [illegible] of which marched at some distance fro[illegible]r in parallel columns, whilst the [illegible]der the king, advanced inland, from t[illegible], to drive the Malli into the other divisions. On arriving at the junction of the Hydraotes with the Acesines, the king had several combats with this tribe, whose capital he took pursuing them to the other side of the Hydraotes. In these conflicts Alexander exhibited much courage, exposing himself to great personal danger, and was severely wounded with an arrow. Thence he marched into the countries of king Musicanus, king Oxycanus, qu-Musa Khan the Sindomanni (the Sindians) and other districts on the Lower Indus. Subsequently, deputies from the Malli and the Oxydracæ came, with presents, to solicit peace, alleging, by way of excuse for their obstinate resistance to the Greeks, their strong love of liberty.

Descending the Indus, Alexander arrived at Patala (Tatta) but Wood prefers the site of Jerk, "where the river divides into two great branches." According to Arrian, Patala, in the Indian tongue, signified the same as delta in the Greek. Alexander proceeded down one of the branches (probably the Piti) to the sea, and afterwards returned to Patala, whence, leaving his fleet with Nearchus he marched with his army to Persia by way of Gedrosia (Mekran) and Caramania (Kerman), in September, B. C. 326.

Alexander himself, on quitting Pattala (said to be Tattah) on the Indus, proceeded, with his army, through the dominions of the Arabitæ, a part of the present province of Lus, and in it forded the Arabis (Poorally) river. To the westward of that diminutive stream, he traversed the territory of the Oreitæ, and thence, crossing over one range of mountains, he entered the province of Gedrosia (Mukran), in which his troops were thinned by the accumulated hardships of thirst, famine and fatigue. This march was incontestably to the southward of the Brahooik chain, and had the Greek historians been even less explicit, the nature of the country alone must have decided any question that might have arisen on this point.

Crateras, who was charged with the guidance of the heavy baggage and invalid soldiers by Arachosia and Drangiana, as certainly marched far to the northward.

The political state of the country at that period may be discerned even in the loose notices left us. Arrian states that there was then a family enjoying supreme dominion in India, which derived their pedigree from Budæus, probably Buddha, whose creed extended widely over this and the neighbouring countries down to the fifth century of our era. The authority of this paramount Indian sovereign, however, did not reach the Punjab, which was severed into separate kingdoms and principalities. That of Musicanus, we are told, was governed by Bramins, and Burnes conjectures that the powerful kingdom of Alore, or Arore, which extended from the ocean to Cashmere, and from Candahar to Kanouj, ruled by Bramins so late as the seventh century, was the kingdom of Musicanus. The Oxydracæ (probably the Cutchi), and the Malli (no doubt the people of Multan, which is still called Malli-than, 'the place of the Malli')—who though generally at variance, combined against Alexander and brought against him an army of 90,000 men,—seem to have possessed much power in the south-western parts of the Punjab. Besides those nations, the Greek writers mention seven independent states in the country of the five rivers.

Alexander had not time to establish any system of government in the vast provinces he conquered in the east; where his authority was acknowledged, it was exercised through military commanders, who, after his death (323 B. C.), became, in the natural course of things, and by the force of circumstances, supreme. Seleucus, governor of Babylon not only secured the country, but extended his power, by the destruction of his competitors, as far as the Indus, which he crossed, B. C. 305, to attack Sandrocottus (identified with the Chandragupta of Indian History), who had expelled the Greek garrisons from the Punjab, which was thus restored to native rule. Seleucus is said to have passed the Hesudrus (Sutlej), and, after gaining several victories over Sandracottus, being suddenly recalled to defend his own territories, to have concluded a treaty of peace with that monarch, to whom he ceded the Punjab and valley of the Indus as far as Peshawar.

After the death of Alexander the Great, Persia as well as Syria, fell to the lot of Seleucus Nicator, who established the dynasty of the Seleucidæ. The era known as the Alexandrian dates from the entry of Seleucus Nicator into Babylon. Antiochus Soter succeeded

Seleucus Nicator, and in the reign of his successor, Antiochus Thoes, Arsaces, a Scythian who came from the north of the Sea of Azoff, induced the Persians to throw off the Greek yoke, founded the Parthian empire, and made Rhages his capital. This was likewise the period of the foundation of the Bactrian kingdom by Theodotus the Governor of it, who finding himself cut off from Syria by the Persian revolution, declared his independence. Arsaces is called Asteh by Eastern writers, and is said to have been a descendant of the ancient Persian kings. When he gained the kingdom it is said he promised to exact no tribute and merely to consider himself as the head of a confederacy of princes, united for the double object of maintaining their independence and freeing Persia from a foreign yoke. This is the commencement of that era of Persian history called by Eastern writers, Malúk-u-Tuaif, or commonwealth of tribes.

In A. D. 906, Rhages was taken by Ismail founder of the Samanee dynasty. It ceased now to be a seat of empire, and in A. D. 967, became the capital of the house of Shemgur, a race of petty princes who maintained a kind of independence, while the dynasties of Saman and Dilemee divided the empire of Persia. In A. D. 1027, Rhages was the last conquest of Mahmud of Ghazni.—*Smith's Bio. Dic. Sharpe's Hist. of Egypt, Vol. I. p.* 224 *Ouseley's Travels, Vol. II. p.* 355. *Chatfield's Hindustan, pp.* 20-21. *Pottinger's Travels, Beluchistan and Sinde, p* 263, 264. *Ferrier's Journal, p.* 55. *History of the Afghans, p.* 227. *Malcolm's History of Persia. History of the Punjab, Vol. I. p.* 46 *to* 55. *Rennell's Memoirs, Vol. I. p* 121, 171. *Rich's Koordistan, Vol. II. p.* 75. *Elphinstone's History of India, p.* 445, 446 *Burnes' Vol. iii. p.* 284. *Annals of Rajasthan, Vol. ii. p.* 186.

The following works may also be consulted; —*Lond. As. Trans. Vol. I. p.* 148-199. *Court in Bl. As Trans.* 1839. *Vol. VIII.* 304. *As. Jl.* 1817, *Vol. XVIII. Abbott. Ibid. Vols. XVII. XVIII. H. T. Prinsep, in As. Jl.* 143, 628. *Sir A. Burnes in Bl. As. Trans. Vol. II.* 307. See India, 309. Kabul, p. 434, 439. Kamran: Kandahar. Kazzilbash. Kellek. Kohistan. Krishna, p. 545 and Persian Kings.

ALEXANDER, Capt. J. E., an officer who travelled to obtain information relative to the means of steam communication between Europe and India, in 1834, and published an account in the London As. Trans. Vol. I. 161, also separately in a book of Travels from India to England, through Persia.—*Lond.* 1827, *I. Vol.*

ALEXANDERS, a name given to the umbelliferous plant Smyrnum olustratum, used similarly to celery.—*Hog. p.* 383.

ALEXANDRIA in Egypt. This city, in lat. 31. 12 N., lon. 29. 53 E., was founded by Alexander the Great, B. C. 323, near the Canopic or western branch of the Nile. It gradually became a place of so much importance that, in the time of the Roman emperors, it was second only to Rome itself in extent and population. In A. D. 638 it was besieged and taken by the caliph Omar, by whom the celebrated Alexandrian library is said to have been destroyed, its decline dates from that time. In after ages the city suffered severely from its Saracen and Turkish conquerors. The French took possession of it in July 1798, at which period the population was reduced to about 7,000. The modern city occupies but a small portion of the ancient site. The present population of Alexandria is estimated at 80,000, including the garrison, sailors of the fleet, and workmen employed in the arsenal and docks.

ALEXANDRIA, near Herat. This city was built by Alexander in his route towards India, and Rennell points as its site to the quarter of Bamian; but he considers that it is impossible to guess its particular situation. At all events he says (p. 170-71) that the proximity of Alexandria to the northern mountains, a fact which Arrian impresses very strongly, renders it an almost impossible case, that Alexandria and Candahar can be one and the same place. Vigne was much inclined to think that the pretensions of Bamian to be the Alexandria ad Caucasum are far from being without foundation; and in that case, Vigne adds that if Bamian be Alexandria ad Caucasum, then he would identify Beghram with Nicæa, or perhaps Kabul is Nicæa; both places lie in the route from Bamian on the high road to India, and in the Caucasus.—*Vigne's. A Personal Narrative p.* 198 *and* 199. *Rennell's Memoir, p.* 170.

ALEXANDRIAN LAUREL. Eng. Calophyllum inophyllum.

ALEXANDRIAN SENNA. See Cassia acutifolia, Cassia plants.

ALEXANDRIAN TREFOIL. Eng. Trifolium Alexandrinum.

ALEXUS COMNENUS, Emperor of Constantinople. He received a letter from Prester John.

AL-FATIHAH, literally "the preface," is the title of the first chapter of the Koran.

ALFAZ-UL-ADWIAH, a Persian book of medicine, translated by Gladwin.

ALFIN. Hind. الفن Pins.

ALFOCIGOS. sp. Pistachio Nuts.

ALFOEREN or ALFOERS, Moderns name of new Guinea.

ALFOEREN, Alfours or Arafuras. Until within the last few years, it was considered by ethnographers that the Alfoeren, Alfour, or Arafura, were a distinct race of people, inhabiting the interior of New Guinea, Ceram, and all the larger islands in the south-eastern part of the Indian Archipelago; but Mr. Earl's inquiries satisfied him that it was a term generally applied to the inland inhabitants of these islands to distinguish them from the coast tribes. The term is of Portuguese origin: and "Alfores," or "Alforias," was formerly applied in the same sense by the Portuguese in India, precisely as the Spaniards called the aborigines of America "Indios," or Indians, and the Mahomedan inhabitants of Sulu and Mindano, "Moros," or Moors. The Portuguese term "Alforias," signifies "free-men," or "manumitted slaves;" but the root "fora" means "out," or "outside," and therefore the term "Alfoers" became naturally applied to the independent tribes who dwelt beyond the influence of their coast settlements. Among the Alfoers, the treatment of their dead betrays in the greatest degree their uncivilized condition, and the uncertainty which exists among them as to their future state. When a man dies, his relations assemble, and destroy all the goods he may have collected during his life, even the gongs are broken to pieces, and thrown away. In their villages, Mr. Earl met with several heaps of porcelain plates and basins, the property of deceased individuals, the survivors entertaining an idea that they have no right to make use of them. After death the body is laid out on a small mat, and supported against a ladder until the relatives of the deceased assemble, which seldom takes place until four days have elapsed; and as decomposition will have commenced before this, the parts where moisture has appeared are covered with lime. Fruitless endeavours to stop the progress of decay! In the mean time, damar or resin is continually burnt in the house, while the guests who have already assembled, regale themselves with quantities of arrack, and of a spirit which they themselves prepare from the juice of a fruit, amid violent raving, the discord, being increased by the beating of gongs, and the howling and lamentation of the women. Food is offered to the deceased; and when they find he does not partake of it, the mouth is filled with eatables, siri (betel-leaf) and arrack, until it runs down the body, and spreads over the floor. When the friends and relatives are all collected, the body is placed upon a bier, on which numerous pieces of cloth have been laid, the quantity being according to the ability of the deceased; and under the bier are placed large dishes of China porcelain, to catch any moisture that may fall from the body. The dishes which have been put to this purpose are afterwards much prized by the Alfoers. The body is then brought out before the house, and supported against a post, when attempts are made to induce it to eat. Lighted cigars, arrack, rice, fruit, &c., are again stuffed into its mouth, and the bystanders, striking up a song, demand whether the sight of all his friends and fellow-villagers will not induce the deceased to awaken? At length, when they find all these endeavours to be fruitless, they place the body on a bier, adorned with flags, and carry it out into the forest, where it is fixed upon the top of four posts. A tree, usually the Pavetta Indica, is then planted near it; and it is remarkable that at this last ceremony none but women, entirely naked, are present. This is called by the Alfoers 'sudah buang,' by which they mean that the body is now cast away, and can listen to them no longer. The entire ceremony proves that the Alfoers are deprived of that consolation afforded by other religions; and that they only give expression to the grief they naturally feel at parting with one to whom they have been attached."—*Kolff, "Voyage of the 'Dourga',"* *p.* 161, *et seq Earl's Papuans, pages* 108, 109.

ALFOMBRA also ALCATIFAS, also TAPETES. Sp. Carpets.

ALFONSIA LEIFERA. S e Elæis.

ALFORVAS. Port. Fenugreek seed.

ALGÆ, the sea-weed tribe, belonging to the natural order Fucaceæ. Of these leafless, flowerless water-plants, Wallich's Catalogue only enumerates two Indian species, borrowed from Buchanan's Herbarium. Royle mentions none, but says that Rottler's Herb contains a *few species of Conferva collected from the neighbourhood of Tranquebar.—Dr. Hooker gives what the Rev. M. J. Berkeley, has written on the Indian Algæ which occur principally in different parts of the Himalayan range, in the* hot-springs of Soorujkoond in Bengal, Pugha in Tibet, and Momay in Sikkim; and on the Fungi of the Himalayas. He adds that the *Algæ from lower localities are but few in number, and some of them of very common forms.* Almost all the plants of this order yield soda and iodine on incineration. Until very recently, they were collected in large quantities, and burned for the sake of the soda yielded by the ashes; after separating the alkali, iodine was obtained from the mother liquors. Although the trade in kelp (the local name in Britain for sea-weed soda) has been nearly annihilated by the plan for making soda from common salt, still sea-weed ashes constitute the sole source from which iodine is manufactured. The green Conferva which floats on the salt-water lake near Calcutta readily yields iodine. It should be dried, burned, the ashes packed in crucibles and heated to bright redness. The residue, treated with water, on evaporation yields a saline mass of muriate and sulphate of soda, chloride of potassium, and iodide of potassium and sodium. Mr. Royle informs us that the natives of the districts at the base of the Himalayas use in the treatment of goitre a dried leaf "brought from a great distance," and which they call *gillur ka pulla*, or goitre leaf. It much resembled fragments of a common fucus. Algæ are found plentifully on the coast from Canagana in Japan, at low water, when they are gathered for victuals, and they prepare the *Alga marina* for the table in the following manner: there are chiefly two sorts of plants found growing upon the shells they take up; one is green and narrow, the other reddish and broader. They are both torn off and assorted, each sort is afterwards put into a tub of fresh water and well washed. This done, the green sort is laid upon a piece of wood, and with a large knife cut small like tobacco, then again washed, and put into a large square wooden sieve, two feet long, where there is fresh water poured upon it, to make the pieces stick close together: having lain there for some time, they take it up with a sort of a comb made of reed, and press it with the hand into a compact substance, squeezing the water out, and so lay it in the sun to dry. The red sort, which is found in much less quantity than the green, is not cut small, otherwise they prepare it much after the same manner, and form it into cakes which are dried and sold for use. Sea-weed is an article imported from abroad into China by junks, as well as collected on the Chinese coast; the foreign sort is principally the *leung fan tsoi*, from which agar-agar is made, but few particulars can be ascertained regarding the trade. In China, this sea-weed is eaten after merely cleaning and stewing it in fat or oil.—*Morrison. Voigt. p. 745. Hooker's Him. Jour., Vol. II. p. 389. O'Shaughnessy, p.* 671. *Kæmpfer's Hist. of Japan, Vol. II. p.* 518.

ALGAROBA BEANS. Ceratonia siliqua, or Prosopis pallida. The seed pods or bean of the carob tree, a tree common in the Levant or south of Europe. The pods contain a large proportion of sweet fecula, are used as food, and frequently by singers, being considered to improve the voice. During the peninsular war, the cavalry horses were fed principally on these beans, of which about 40,000 quintals are annually exported from Crete.—*Simmonds.*

ALGIERS : its temperature,

Mean for the whole year.	69·13°	Spring...	61·04
Winter.... ...	62·13°	Summer	75·09
		Autumn....	78·26

The mean temperature of Algiers for the whole year being 69° 13', it most approaches that of Malta; but exceeds it by 2°, Malaga by 3°, Madeira by 4°, Rome by 9°, Nice by 10°, and Pau by 13°, Cairo is 3°, higher (mean), yet its winter is 4° colder than that of Algiers. The people are partly of Moorish, partly of Arab origin. See Semitic races.

ALGUADA REEF, called also Sunkea, also Drowned Island, is in lat. 15° 42½' N. and S. S. W. 3½ leagues, from Lychime or Diamond Island off the Ava coast. It is a very dangerous reef of rocks, level with the sea, extending N. and S. about 1½ miles, with detached rocks around it, at considerable distances; on some of which the sea breaks in bad weather. A light house has been erected by Captain Fraser of the Bengal Enigneers, after the labour of six years from 1859 to 1865. To show the tremendous force, exerted by the sea at the reef during the south-west monsoon, it may be mentioned that stones weighing a ton each had been washed sixty feet away, from the place in which they were left and lifted at least five feet above their former level. Mr. Blanford supposes it to be a peak of the great Arracan or Yomai range of mountains, which separate Burmah proper from the province of Arracan. According to the opinion of Mr. Blanford, the Alguada reef is composed of a ledge of sandstone. When struck violently by heavy waves of the sea, it is said to tremble, showing clearly that its base, reposing at the bottom of the ocean, cannot be very extensive. The workmen were chiefly Chinese, and the materials were obtained from Calagouk or Curlew island. The centre stone of the first course weighed three tons and three quarters. The centre stone of the second course was about three tons and nearly a half. The foundation consists of large blocks of granite, which fit together with mathematical accuracy, and the work proceeds along lines of radii, from centre to circumference in a succession of concentric rings.

ALGOSA. BENG. Round headed dodder, Cuscuta capitata.

ALGUM-WOOD of scripture is supposed to be an Indian product, and assumed to be Sandal-wood. The articles mentioned along with it ivory, gold, apes, and peacocks, are indigenous in India. The algum-tree, if interpreters are right in taking algum or almug for sandal-wood, is found indigenous on the coast of Malabar; and one of its numerous names there, and in Sanscrit, is vulguka. This vulgu (ka) is clearly the name which Jewish and Phœnician merchants corrupted into algum, and which in Hebrew was still further changed into almug. In this very locality Ptolemy (VII. 1) gives us the name of Abiria, above Pattalene. In the same locality hindu geographers place the people called Abhira or Abhaira; and in the same neighbourhood MacMurdo, in his account of the province of Cutch, still knows a race of Ahirs, the descendants, in all probability, of the people who sold to Hiram and Solomon their gold and precious stones, their apes, peacocks, and saudal-wood.—*Mulber's Lectures*, *p.* 191.

ALHAGI MAURORUM, *Tourne*; *W. & A.*

A. mannifera. *Desv.*
A. Nepaulensium. *D C.*
Ononis spinosa. *Hasselq.*
Manna Hebraica, *D. Don.*
Hedysarum Alhagi, *Linn.*

Al-gul ...	... Ar.	Juwansa. ...	.. Hind.
Juvasa or Juivassa.	Beng.	Khari Jhar ..	.. Sindh.
Shinz Kubi	...Brahui.	Giri karnika	... Sans.
Prickly stemmed		Kandero ...	...Sindh.
Hedysarum	....Eng.	Giri karnika ...	Tel.
Camel's Thorn ...	„	Tella-giniya chettu.	„
Shutur-khar.	Hind. Pers.		

This shrub grows in the deserts of Egypt, Syria, Mesopotamia, Beluchistan, Sind, in Guzerat, the Southern Mahratta country, at Monghir, Benares, Delhi. It sends forth leaves and flowers, in the hot season, when almost all the smaller plants die, and affords a grateful food for the camel, in desert places. Hebrew manna the turunjabin of the bazaars, exudes from its leaves and branches, but is secreted apparently only on Persia and Bokhara. Mr. Royle considers A nepalensis, identical with the Alhagi Maurorum, and states on strong grounds that no manna is secreted by either in India, Arabia, or Egypt. Persia and Bokhara seem its proper districts, and hence the turunjabin is imported into India. In Calcutta it is difficult to procure it of good quality: when pure it sells in Bengal for 10 rupees the seer. This lowly plant affords a beautiful exemplification of the merciful care of providence for it abounds in the deserts of Arabia, India, Africa, Tartary, and Persia, and in most of these wilds it is the only food of the camel, that valuable inhabitant of such unfriendly wastes. —*Voigt. p.* 224. *Mignan's Travels*, *p.* 240, 241: *Pottinger's Travels*, *p.* 185.

AL-HAMD-UL-ILLAH YA RAB-UL-ALIMIN. Ar. Praise be to Allah, Oh Lord of the (three) worlds!" A pious ejaculation by Mahomedans which leaves their lips on all occasions of concluding actions.—*Burnes.*

AL HAMIR. This word appears to be derived from the Arabic root hamara, which signifies to be, or become, red. It is the translation of this word which gives the name of the Red Sea.—*Mignan's Travels*, *p.* 267.

ALHAMBRA one of the four wards of the ancient city of Granada. The term is deducible from the Arabic root " hamar." It was so called by the Moors, from the red colour of its materials, Al-hambra, signifying a red house.—*Mignan's Travels*, *p.* 267.

ALI, often styled, ul Ilahi, the devine, the son of Abu Talib, was the cousin and companion of Mahomed, also his son-in-law, he having married Fatimah, Mahomed's only surviving child; he was the first of the family of the Koreish to adopt the new faith. Notwithstanding these claims, and his personal merits and valour, on the death of Mahomed in his 63rd year, in A. D. 632 and in the eleventh year of the Hejira. Ali was not recognized as his successor, but Abu Bakr was so elected and after a reign of 'two years was succeeded by Omar who was assassinated in the twelfth year of his reign. He was succeeded by Othman, and then in A. D. 656 by Ali. With Ali's rule severe political convulsions ensued. The earliest arose from the intrigues of Aiesha and after these were settled, the governor of Syria, Moawiyah Ibn Abi Sofian, threw off his allegiance to Ali and had himself proclaimed Khalif of the western provinces. An appeal to arms resulted in the defeat of Ali, after a desultory war of 102 days, and Ali then retired to Kuffa in Chaldea, on the banks of the Euphrates. The people of Karund in the south of Persia, believe Ali to have been a god, and they are styled the Ali Illahi. The Shiah sect of Mahomedans consider that Ali ought to have been the first Khalif. In Khorassan, Ali is usually styled Shah-i-mardan " King of men." The Khajah race and the entire Ismaili sects all worship Ali as an incarnate deity and the present incarnation (1867) is Aga Mahomed, a pensioner of the British Goverment at Bombay.—*Ferrier's Journey*, *p.* 210. See Kajar. Karund. Kazzilbash. Khajah. Khalifs. Kufa.

ALIA. Hind. Aloes. ایلوا See Elwa.

ALIA. Malay. Ginger.

ALI-AKU. Tel. Casuelle. Tam. Memecylon tinctorium. See Dyes.

ALIBAGH, the capital of a small state, just south of Bombay.—*Dr. Buists' Catalogue.*

ALIE-VERIE. Tam. அல்லிவேர். Garden-Cress, Lepidum sativum.

ALIE VERIE YENNAI. Tam. Oil of Garden-Cress, Lepidum sativum. See Oil.

ALIF-ZYE, a branch of the Nosharwan tribe. This tribe occupy the Kharan province of Afghanistan and is of Persian origin, there are two small towns. They cultivate a little wheat and barley. See Kelat.

ALIGHUR, a large military station in L. 27° 53′ 8″ N. and L. 78° 39′ E. about 84 miles S. E. from Delhi, and at the house of Mr. Charles Gubbin's, 750 feet above the sea.—*R. Schl.*

ALIGHUR, a valley in the Kohistan of Kabul. See Kabul.

ALI ILLAHI, a sect at the town of Karund, in the south of Persia, who worship Ali as a god and believe in his incarnation. They eat pork, drink fermented liquors, never pray, nor feast at the Ramadan, and are cruel and savage in their habits. The sect has marks of Judaism, singularly amalgamated with Sabæan, Christian and Mahomedan legends. Pottinger says that their chief tenet is that Ali is god. —*Pottr's. Trav. Beluch. and Sinde, p.* 234. See Karrund.

ALIKA CHETTOO. Tel. అలిక చెట్టు Memecylon tinctorium.

ALIKA JHAR. Hind. Morinda citrifolia.

ALI KHAN, the Moghul Hulaku or Hulagu or Hulu-khan of Europe. He was grandson of Jenghis Khan. He was a fierce conqueror, and in A. H 656=A. D. 1258-9 he took Baghdad after a siege. See Khajuh, Khalif.

ALI KHEIL, a small Afghan tribe. See Afghan.

ALI Musjid, a town in India, in L. 71° 29′ E. & Lat. 34° 4′ N.

ALINGAR, a river of Afghanistan. After uniting with the Ali-shang it forms the Lughman river which joins the river of Kabul.

ALINGIE-MARUM. Tam. அலிஞ்சிமரம் Alangium decapetalum.

ALI PANDU. Tel. అలిపండు Memecylon edule.

ALIPORA, a town in India, in L. 79° 20′ E. & L. 25° 11′ N.

ALIPUR, a town in India, in L. 75° 19′ E. & L. 18° 31′ N.

ALIPUTA, a town in India, in L. 81° 27′, E. & Lat. 6° 56′ N.

ALI RIZA PASHA, took Mahamerah. See Kab.

ALISA. Tel. Dilivaria ilicifolia, *Juss.*

ALISHANG, a river of the Kohistan. See Alingar. Jelalabad. Kaffir. Kohistan.

ALI'S POT, the Kashgul-i-Ali, a sacred relique, the water pot of FO or Buddha. It was carried to Kandahar by the tribes who fled in the fourth century from Gandharra on the Indus, to escape an invasion of the Yuchi who made an eruption from Chinese Tartary for the express purpose of obtaining it. It is now at the foot of the old town of Kandahar, and is one of the most celebrated reliques of antiquity belonging to the eastern world, and still retains amongst the mahomedans of Kandahar, a sacred and miraculous character. It is formed of stone and may contain about twenty gallons. See Kabul.

ALIVERIE. Garden cress, Haleem, seeds of Lepidum sativum, used in medicine.—*O'Shaughnessy*; also Linseed.

ALI-VITULLOO. Tel. అలివిత్తులు Syn. of Linseed.

ALIYA, a branch of the Turkia sub-division of the travelling grain dealers called Binjara.

ALIZARI GARANCE. Fr. Madder.

ALIZY, a town in India; in, L. 66° 40′ E. & L. 30° 46′ N.

ALIZYE, a small Afghan tribe, of the Durani. See Afghan. Durani.

AL-KAF, between Yemen and Oman, said to have been a terrestrial paradise, until covered by a desert of sand for the impiety of its inhabitants.—*Wright's Christianity in Arabia.*

ALKALI.

Khar... ... ... Hind. | Sajji Khar... ... Hind.

Southern India is particularly rich in alkaline and earthy minerals, the origin of which seems to be the decaying granites of the country. The most common form of alkali, is the Dhobee's Earth, a whitish grey, sandy efflorescence, which often covers miles of country where decayed white granite forms the surface soil; this earth contains from 13 to 25 per cent. of crude carbonate of soda and begins to accumulate in the dry whether; immediately after the rains, it can be scraped off the surface to the depth of two or three inches, and by repeated boiling and the addition of a little quick lime, the alkali is obtained of considerable strength. With a little care, very clean carbonate of soda can be obtained, fit for the manufacture of toilet soap, white glass, and glazes for pottery. The crude earth in different states was exhibited at the Madras Exhibition of 1857, from almost every district, some in large quantities for manufacturing purposes. The Nellore, Cuddapah, Masulipatam and Chingleput District, yield this earth in great quantities. Repeated attempts have been made to prepare from it Barilla for exportation and very fair specimens have been exported at different times, but the moderate price of the carbonate of soda of England prepared from sea salt will always prevent this from being a remunerative article of export. Colored frits for bangle glass, have lately however become an article of export from the Madras Presidency.

Nitrate of Soda.—Samples of this salt were exhibited from Bellary and Hyderabad where it seems to form a natural efflorescence. Its chief use is as a substitute for saltpetre for the manufacture of nitric and other acids and chemical substances. It is too deliquescent for making gunpowder, though it answers well for some descriptions of fireworks.

Muriate of Soda, mineral salt, of every fair quality was exhibited from Mysore, Bellary and Hyderabad, and is known to occur also in the Guntoor and Nellore Districts and to be almost invariably accompanied by some interesting minerals; viz., gypsum, magnesian limestone, sandstone, sulphur, red and brown iron ores, and alum slate. The Salt Range in the

Punjaub, runs from the Eastern base of the Suliman mountains to the river Jhelum in the Punjaub, Lat. 32° 30′—33° 20′.

The rocks in this part of the range are, magnesian limestone, new red sandstone, fossiliferous sandstone, red clay and sandstone containing coal and mineral sulphur, rock salt, gypsum, brown and red iron ore and alum slate. The lower beds contain no organic remains but the upper abound in them. The iron ore is a red or brown Hæmatite, so rich that in many places the needle of the compass becomes quite useless even at a considerable distance from the rocks, owing to their being highly magnetic, from the quantity of iron which they contain. The sandstone abounds with the exuviæ of enormous animals, either Saurians or Sauroid fishes.

The hills at Kala Bagh contain great quantities of aluminous slate, from which alum is obtained at various manufactories in that town. The slate, well sprinkled with water, is laid in alternate strata with wood, until the pile reaches a height of 25 to 30 feet ; it is then lighted and the combustion continued for about twelve hours, in which time the color of the slate is converted from greyish black to dark red. This change of color indicating that the process has been carried to a sufficient extent, the mass is thrown into a tank holding as much water as it is computed the alum is competent to saturate. After three days the water, which becomes of a dark red color, is drawn off, mixed with a due proportion of potash and boiled down. The residuum on cooling becoming a solid mass of alum.

A series of salts, consisting chiefly of the muriate and carbonate of soda from the Loonar Lake in the Hyderabad territories, was exhibited in 1857, by Dr. George Smith, Residency Surgeon, Hyderabad. The following is a condensed report of their chemical composition.

No. 1. Dalla, a carbonate of soda with a faint trace of muriate of soda about 2 per cent. of impurities.

No. 2. Nimmak Dalla, nearly pure muriate of soda.

No. 3. Khappul, carbonate of soda, with water and about 2 per cent. of impurities.

No. 4. Pappree, nearly pure carbonate of soda.

No. 5. Mad-khar, an impure salt containing

carbonate of soda	27
Clay and sand	30
Water about	17
Common Salt	25

No. 6. Bhoonkee, a crude impure substance containing

neutral carb. of soda...	26
Insoluble matter chiefly sand and clay.	58
Water, ...	16
Common Salt	2

No. 7. Travertin contains

carb. of lime.	78
Carbonate of Magnesia	4
Insoluble matter with oxide of iron, &c.	9
Chloride of Sodium	2
Water	3

The Natron lake of Loonar occurs in the Circar of Mehkur, Soubah of Berar, about 45 miles N. W. of Hingolie, in Lat. 20 N. It is about 510 feet below the level of the surrounding ground, in a kind of crater of 5 miles in circumference ; the lake being about 3 miles in circumference and surrounded by luxuriant vegetation ; springs of clear soft water occur close to the lake, which has evidently been extending its bounds lately, as numerous dead trees are standing within its margin, and a well of sweet water, protected by a wall, is now completely surrounded by the water of the lake. An intolerable stench of sulphuretted hydrogen is emitted by the lake during the heat of the day, and its waters, prove destructive to animal and vegetable life, though flocks of duck and teal dot the surface of its waters. There are two saline springs near the centre of the lake, and about ½ a mile apart. These never become dry. It is supposed that the muriate of soda from this source, coming in contact with the carbonate of lime which abounds in the vicinity causes the deposition of the carbonate of soda or Natron salt in a greater or less state of purity. The depth of the lake near the salt springs varies from 6 feet during the hot months to 12 or 14 feet during the rains. The salt is raised by divers, who bring it up in their hands It is much prized and finds a ready sale in both Berars, Nagpore, Candeish, and Poonah, to which places it is carried in bamboo baskets and retailed by dealers. The Lake has not been regularly worked since 1836, in which year 2,136 candies of the different salts were raised, valued at Rs. 60,081. In 1853 Major Johnston raised 35 candies, valued at Rs. 1,461-4-0.—*M. E. J. R.* of 1857.

AL-KA-JHAR. HIND. آل کا جھار Morinda citrifolia.

ALKANET.

Anchusa tinctoria.
„ officinalis.

Ossetong	DUT.	Orkanet	GER.
Dyer's Bugloss...	ENG.	Ancusa	IT.
Orcanette	FR.	Arcaneta	SP.

The three plants, Anchusa paniculata, A. undulata and A. officinalis have been introduced into India but no success recorded. The A. officinalis is a native of the Peloponnesus, the island of Cyprus and the deserts about Alexandria ; but is cultivated in England, Spain and the south of France. The root yields a fine red color to oils, wax ; all unctuous substances, and to spirits of wine. Its chief uses are for colouring lip salves, ointments, staining wood and dyeing cotton, but it is also used for colouring many of the beverages sold under the name of port-wine, and the corks used for the bottles in which this fluid is sold.—*Tomlinson. Faulkner.*

AL-KARI, a class of Rajput cultivators in Naghm, from their special cultivation of the Al-tree, the Morinda citrifolia.

AL-KASR. See Kasr.

AL-KHALIK. Ar. Pers. An overcoat.

AL-KORAN. The Koran.

ALKUSHI. Beng. Mucuna prurita, Hook.

ALLA-BATSALA. Tel. అల్ల-బచ్చల Basella alba.

ALLADANATTUM, a town in India, in L. 78° 20′ E. and L. 11° 10′ N.

Allæanthus Zeylanicus, *Thw. I. c. t.* 9 *B. c. p.* 2215. Singh. A tree, 30 to 40 feet high, of the Central Province of Ceylon, at an elevation of 1000 feet.—*Thw. En. Pl. Zeyl. p.* 263.

ALLAGACOOMBAYE, a town in India, in L. 76° 39′ E, and L. 16° 50′ N.

ALLA-GILI GICH-CHA, అల్లగిలిగిచ్చ Crotalaria verrucosa, *L.—W. and A.* 578.—*L.* 200—*R. iii.* 273, C. angulosa, *Ib.* 274, *Rheede, ix.* 29.

ALLAGUTTA, a town in India, in L. 76° 20′ E. and L. 14° 18′ N.

ALLAHABAD, L. 25° 26′, N. L. 81° 51′. 9, E. in India, a large military station at the confluence of the Ganges with the Jumna, 316 feet above the level of the sea. Its ancient name seems to have been Vaisali, from its founder Visala or Besa-biraja, one of the third solar line of Vesala, of the Surya Vansa or solar dynasty. The spot is considered sacred by the hindus. At this town is one of the famed Lat, an obelisk or pillar, a monolith containing a Gupta inscription written on its surface. Another inscription, not inpure sanskrit, has seventy lines metrical, the rest prose, and its date is the seventh or eight century. The character used in the inscriptions is Allahabad, or Gaya. There are mentioned on it Dhanada (Kuvera), Varuna, Indra and Antaka (Yama) Vrihaspati, Tumburu, Narada and the Ganges coming from the hair of the lord of men (Siva) is noticed. Samudra Gupta is said to put to shame Indra, Yama, Kuvera, and Varuna. The kings or princes mentioned on it are Sri Gupta, son Sri Ghatot Kacha, son Chandra Gupta, son Samudra Gupta, son Chandra Gupta, the second, then living. This is the last revised reading by Mr. J. Prinsep. The column was probably raised again by the dewan of Chandra Gupta, II. A curious thing in the inscription is the use of ka, the prototype of the modern genitive sign in Hindi. None of the numerous kings named are met with in the Puranas, and few of the countries even. No mention of Brahmans whatever. The poet Dhruva Bhuta calls himself the slave of the feet of the great king, and hopes it will be acceptable to the dewan Hari Sena. It is professed to be executed by the slave of the feet of the supreme sovereign, the criminal magistrate, Tala Bhatta, and uses the terms Shahanshahi, king of kings, which applies to the Sassanian dynasty of Persia, extinct in the seventh century. The Scythians and Huns are mentioned. By this inscription the power of Brahmanism was plainly only incipient. In historic times, the Rajpoots obtained a footing in this district and now occupy several estates, but between them and the Brahmins there exists deadly enmity. The incursions of the Rajpoots seem to be the foundation of the present proprietary rights in the land; each pergunnah has a separate and distinct tribe, although in a few estates other denominations of Rajpoots are to be found. The Rajpoots seem to have had their particular leaders, who, after locating themselves and their followers, displaced the original inhabitants by degrees, and extended themselves as far as they could. Thus in pergunnah Jhoonsee the Bais rajpoots trace their origin to two leaders, viz., Bowanee and Jootan; to the descendants of the former the large estate of Mowaya was allotted, and to those of the latter the nine estates. Some entire mouzahs in each of these talooks were subsequently assigned to different branches of the family, and the remainder held jointly by all, but as they are now divided into separate estates, the holdings are strangely intermixed, as in some of the villages nine talooks have shares, not howev of any one distinct portion, but they are di ded field by field; and as in process of ti sales and mortgages took place and some the fields became the property of other estates; the intermixture has greatly increased.—*Vol. VI. p.* 970 to 980 of the *Bl. As. Soc. Jour.* See Supp. II. Cyc. of India, Buddha. India p. 327. Inscriptions pages 371, 372, 373; 375, 383. Kols. 536. [illegible] Surya Vansa; Triveni.

ALLAHBUND, a vast mound in Sinde, raised by the earthquake of 1819.—*Buist's Catalogue.*

ALLAHPUR, a town in India, in L. 77° 48′ E. and L. 25° 26′ N.

ALLAIGAM, a town in India, in L. 74° 30′ E. and Lat. 18° 36′ N.

ALLAINGLYGHY, a town in India, in L. 70° 10′ and L. 16° 35′ E.

ALLAKAPPO, one of the eight places at which relics of Buddha were deposited. See Tope.

ALLAMANDII AUBLETII. DON. Syn. of Allamanda cathartica.

ALLAMANDA CATHARTICA, *Linn.* Koen.

A. Aublettii, *Pohl.*
A. verticellata, *Desf.*
A. grandiflora, *Lam.*
Orelia grandiflora, *Aubl.*
A. œnotherifolia, *Pohl.*
A. augustifolia, „

P'ha yung-b'han. BURM. Willow-leaved Allamanda... .. ENG.	Arali ... ...MALEAL.

A native of Surinam, the West Indies, Guiana, Brazil, introduced into India from Guiana in 1803. The leaves a valuable cathartic, used especially in painter's colic. In too large doses violently emetic and drastic. This shrub has very large bright yellow fragrant flowers and fruits throughout the year. It might take a place in the medicines of European hospitals.—*Useful Plants. Riddell. Jaffrey. O'Shaughnessy, p.* 448. *Voigt. p.* 528.

ALLAMAN. TURK. A term applied by the Turkoman races to the robbers of the country.

ALLAMBADDY, a town in India, in L. 77° 39′ E. and L. 12° 8′ N.

ALLAMPOO. There are two towns of this name in India, one in L. 77° 39′ E., Lat. 22° 1′ N., the other in 78° 12′ E., Lat. 15° 54′ N.

ALLANHANGUDA, a town in India, in L. 78° 14′ N. and L. 17° 26′ N.

ALLAPU KOMMU-VELLA VANTI GADDI. TEL అల్లపుకొమ్ము వెల్లవంటిగడ్డి. Andropogon nardus? *Rottl.*—*Ains.* 115—A. Iwaraneusa, *Bl*? The Sans, syn. Guch-ch which signifies "tufts," a peculiarity of *A.* [illegible]*arancusa, R. i,* 275.

ALLAS, a town on the east end of Sum[illegible]wa, in lat. 8° 42′ S. Long. about 116° 45′ [illegible] gives its name to the strait that separates S[illegible]bawa from Lombok. This is much frequented by ships outwards bound to China by way of Macassar Strait or the Eastern Passages, chiefly on account of its having soundings at moderate depths on the western side, where vessels can anchor either to await the turn of tide, or to obtain refreshments from the villages on Lombok. Allas is insignificant being rarely, if ever, visited, Talewang bay, a little to the south and Pijow and Labu Hadgi on the opposite coast engrossing all the foreign traffic.—*Journl Ind. Arch.*

ALLAS, a village on the south coast of the island of Timor, in about Lat. 9° 23′ S. Long. 123° E. The produce of the neighbouring territory, consists chiefly of bees' wax and sandal wood and is carried overland to Dilli, the capital of the Portuguese possessions, which lies on the N. W. coast of the island in a due north direction, distant about 50 miles; or to Atapoupa, a settlement of the Dutch, also on the N. W. coast, and somewhat nearer than the former Allas gives a name to one of the mountains on Timor, said to be 12,000 feet high.—*Journ. Ind. Arch.* See Semang.

ALLEKO-ZYE, a small Afghan tribe of the Durani section. See Afghan; Durani.

ALLEYERAH, a town in India, in Long. 75° 39′ E. and Lat. 26° 17′ N.

ALLI MALEAL. A rather scarce tree about twenty feet high, and from twelve to fifteen inches in diameter. It produces a sort of fig, which natives use medicinally.—*Edye. Mal. and Can.*

ALLI CHETTU, అల్లిచెట్టు Memecylon capitellatum, *L.*—M. edule, *R* ii. 260; *Cor.* 82 Br. 45 gives *Nymphœa* as the signification of this term but it is a Tamil use of the word only employed by Telingas near Madras also Memecylon tinctorium, Koen, Willd.

ALLIE KALUNGU. TAM. அல்லிக்கெளங்கு Nymphæa lotus.

ALLIGATOR. Dean French in his study of words (page 125) says "when the alligator, this ugly crocodile of the new world, was first seen by the Spanish discoverers, they called it, with a true insight into its species, "el ellagarto," or the lizard, as being the largest of the lizard species to which it belonged. The name is commonly but erroneously applied to the crocodiles of Asia, as the alligators are wholly confined to tropical and Southern America, where they are styled also Cayman, Jacaré. The alligator closely resembles the crocodile but has characters sufficiently distinct to have constituted a new genus. See Crocodile.

ALLIGATOR ISLAND, lies near Barn Island in the Straits of Singapore.—*Horsburgh.*

ALLIKI, (or Gitti-Gadda.) అల్లిక.(గిట్టిగడ్డ.) Scirpus dubius, R i. 215; Isoetes, sp? Rottl.

ALLIGAUM, a town in India, in Long. 76° 52′ E. and Lat. 20° 29′ N.

ALLIGUNGA, a town in India, in Long. 87° 51′ E. and Lat. 26° 19′ N.

ALLIGUNGE or SEWAN, a town in India, in Long. 84° 24′ E. and Lat. 26° 11′ N.

ALLIPAYARU, అల్లిపయరు. Grewia lævigata, *Vahl.*—*W. & A.* 281. G. didyma, *R.* ii. 591.

ALLIPOOR, two towns in India, one in Long. 90° 2′ E. and Lat. 23° 35′ N. the other in Long. 90° 11′ E and Lat. 23° 52′ N.

ALLIUM, a genus of plants, largely cultivated in Indian gardens and alike by Europeans and Natives extensively used in food, both in soups and as vegetables: of this genus, Voigt. names twenty three species but notice of the shallot, the onion, the leek, and garlic will suffice.

ALLIUM ASCALONICUM. *Linn.* The Shallot.

Khyet-thwon-nee.	BURM.	Shallot...	ENG.
Piaz ...	HIND.		

Should be sown, at the commencement of the rains, in beds, with a light, rich soil and propagated by dividing the clustered roots, and it will give a crop in the cold weather.—*Voigt.* 668, *Riddell. Roxb.* ii. 142.

ALLIUM CEPA. *Linn.* The Onion.

Ba-sal also Busl...	AR.	Bawangmerah ...	MALAY.
Pulantu ...	BENG.	Piaz ...	PERS.
Piaz ...	„	Pallandu ...	SANS.
Ky-et-thwon-ni ...	BURM.	Latæcka ...	„
Kunballi ...	CAN.	Luno ...	SINGH.
Onion ...	ENG.	Vengayam...	TAM.
Piaz ...	HIND.	Nirulli ..	TEL.
Bawang ...	MALAY.	Erra-Ulli-gadda...	„
Brambang...	„	Valli gadda ...	„

Commonly cultivated all over India. The brahmins of India do not eat the onion, regarding it as similar to mutton.

ALLIUM PORRUM. *W.* The Leek.

Koornas ? ..	ARAB.	Korrat...	EGYPT.
Puroo...	BENG.	Leek ...	ENG.
Tau kyet thwon...	BURM.	Gundina ...	PERS.
Khorat ? ...	of BY. ?		

Cultivated in gardens in India.

ALLIUM SATIVUM. *Linn.* Garlic.

Som also Sum ?...	AR.	Lahsan ...	HIND.
Kyet-thwon pen...	BUR.	Bawang-putih ..	MALAY.
Loshoon ...	BENG.	Sir ...	PERS.
Lashuna ...	„	Mahu Shuda ...	SANS.
Rashoon ...	„	Lasana ...	„
Ky-et thwon phyu ...	BURM.	Sudulunu ...	SINGH
		Vallai pandu ..	TAM.
Beluli...	CAN.	Ell-ulli ...	TEL.
Lăhsăn ...	DUK.	Vellulli ...	„
Garlic...	ENG.	Tallagadda ...	„

Largely cultivated in India and in all Asiatic countries, as a condiment for food. Garlic seed oil, called, తెల్లగడ్డనూన Tella gadda nuna, TEL: வெள்ளைப்பூண்டெண்ணை, Wulla poondoo yennai, TAM: is only medicinal. It is clear, colourless, limpid, and contains the full odour of the plant. It might be available in cookery for those who relish the flavour of garlic in their dishes, but this will evidently be the fullest extent of its application; hence it can scarcely be considered of any importance commercially.

ALLMANNIA NODIFLORA. *R. Br.*

Chamissoa nodiflora		*Mart.*
Celosia	„	*Linn.*
Achyranthes	„	*Linn.*

Common in Coromandel and Ceylon, and is esculent —*Roxb.* 1. 678.

ALLO NEREDU, అల్లొనేరెడు. (or Pedda neredu.) Eugenia Jambolana, *R.* ii. 485. A variety with large edible fruit.

ALLOOR, a town in India, in Long. 74° 50′ E. and Lat. 15° 29′ N.

ALLOOR, a town in India, in Long. 76° 28′ E. and Lat. 17° N.

ALLOTE, a town in India, in Long. 75° 42′ E. and Lat. 23° 46′ N.

ALLOTLA, a town in India, in Long. 79° 14′ E. and Lat. 16° 35′ N.

ALLOWA, a town in India, in Long. 84° 52′ E. and Lat. 27° 3′ N.

ALLOYS. The natives of India are acquainted with a variety of alloys for making utensils, bells and ornaments, as with copper and zinc, tin and lead, besides being great workers in copper and brass for the various utensils employed for domestic purposes, and of which a large variety was sent from different parts of India to the several exhibitions in Europe. In the Travancore State, the workmen have been very successful in their fabrication of alloys, but the ingredients they use are not known. In the district of Coimbatore, the metals employed in the formation of alloys are copper—zinc—tin—and lead, in the following proportions.

Copper 10 parts, *zinc* 6½.—Alloy valued at 4 annas per seer of 24 tolas weight and is used for all purposes.

Copper 10 parts, *zinc* 5—Alloy valued at 3½ annas per seer, somewhat darker than the other, but considered equally useful.

Copper 10—*zinc* 10—Alloy valued at 3 annas the seer considered inferior to the others, but is also in current use.

Copper 10—*tin* 2½—A beautiful bell metal alloy, valued at 6 annas the seer. Is used for the same purposes as the others.

Copper 10—*tin* 2—*lead* ½—An inferior looking alloy, but employed for similar purposes.

The metals are all imported and are procurable at the following prices in the bazar, copper per seer 5 annas—zinc 1 anna 4 pie—tin 4 annas, lead 1 anna 4 pie. A vessel of No was by far the finest of the series, and v . gently struck, gave out a fine bell sound.—*Royle Arts, &c. of India, page* 471.—*Juries' Reports, M. E.*

ALLSPICE; Allspice, Pimento, or Bay-berry tree, *Eugenia pimenta*. This large tree is supposed to be wholly of S. America. But Mr. Mason mentions that on the sides of some of the highest mountains in the province of Tavoy, he repeatedly met with a tree, but never saw it either in fruit or flower, which the Burmese call "wild clove tree." The young branches and the leaves of this tasted very strongly of all-spice, and he considers it a Eugenia, possibly E. pimenta. Allspice is rarely adulterated, owing, possibly to its low price.—*Hassall. Mason.*

ALLU, Hind. any pomaceous fruit. See Aloo. Alu.

ALLU, a. raw hide used by the Rajpoots, with which they cover themselves to assert their claim to a disputed property.—*Coleman.*

ALLU, (or Arikelu,) అల్లు-(అరికెలు.) Paspalum scrobiculatum, L. R. i. 278.

ALLU BACH-CHALI (or Pedda bachchali. అల్లుబచ్చలి-(పెద్దబచ్చలి.) Basella alba, L.

ALLUGWAREE, a town in India, in Long. 75° 0' E. and 16° 32' N.

ALLUMBRE. Sp. Alum.

ALLUME. It. Alum.

ALLUMPAUDE, a town in India, in Long. 77° 40' E. and Lat. 11° 6' N

ALLUMPOOR, the name of three towns in India, one in Long. 86° 53' E. and Lat. 22° 12' N., one in Long. 88° 12' E. and Lat. 23° 20' N. and one in Long. 91° 52' E. and Lat 22° 32' N.

ALLUND, a town in India, in Long. 76° 32' E. and Lat 17° 34' N.

ALLUNGWASS, a town in India, in Long. 74° 29' E. and Lat. 26° 20' N

ALLUR, a town in India, in Long. 78° 8' E. Lat. 17° 18 N.

ALLY BUNDER, a town in India, in Long. 69° 35' E. and Lat. 24° 21' N.

ALLYGUNGE, two towns in India, one in Long. 79° 19' E. and Lat. 28° 21' N. the other in Long. 87° 23' E. and Lat. 22° 27' N.

ALMACEGU. Port. Mastic.

ALMACIGA. Sp. Mastic.

ALMAGESTUM, a work whose author mentioned the Lar Des, from the tribe of Lar, hence the Larica or Larice of the Greeks. See Indus, Kerk. Lar. Med. *Elliot.*

ALMAH KOTE, a town in India, in Long. 68° 28' E. Lat. 24° 52' N.

ALMANACK. Engl. Jantri. Hind. This word is supposed to be derived from the Arabic. The natives of India have arranged their almanacks on the same principles as those of Europe.—*Sonnerat Voyage aux Indes Vol. I. Sec. III. Ch. XIII. Chatfield's Hindustan, p.* 180.

ALMANDINE, or Precious Garnet is that variety commonly employed in jewellery.

ALMARTAGA. Sp. Litharge.

ALMAS. Arab. Pers. Russ. الماس Diamond.

AL MASUDI, a patronymic surname given to Abu'l-Hasan Abi, a native of Bagdad a great traveller, acute observer and writer. He wandered to Morocco and Spain on the West and eastwards to China, through all the mahomedan and many other countries, and he wrote his travels which he styled Murdj-ul-Zahab or meadows of gold.—*Elliot, p.* 19.

ALMENDRA. Sp. Amygdalus communis.

ALMIDON. Sp. Starch.

ALMIRAH. An Anglo-Indian term from Port. Almarinho, a wardrobe.

ALMISCAR. Port. Musk.

ALMIZELE. Sp. Musk.

ALMOND.

Lauz	Ar.	Amande...	Fr.
Almond...	Eng.	Luz	Heb.
Mandel... ...	Dut. Dan. Ger. Swed.	Amygdala...	...Lat.

This term is applied to the common almond, Amygdalus communis: to the Indian almonds, the fruits of the Terminalia catappa and Canarium commune and the almonds of Gen. xliii. v. ii. have been thought to be Pistachio nuts.. See Amygdalus.

ALMOND OIL.

Badam-ka-tel ...	Hind.	Badamcottay-yennay. . ..	Tam.
Badam minak ...	Malay.	Badama vittulu nune.	Tel.
Roughan-i-Badam	Pers.		
Ingudi-tailam ...	Sans.		

This oil, from the fruit of the amygdalus communis, is not wholly an article of import, but chiefly so. The almond tree is a native of the Himalyas, and is abundant in Cashmere. The oil is colourless or very slightly yellow, and is congealed with difficulty. It is obtained for native use in India, but does not as yet form a recognized article of export. Both varieties of almond, bitter and sweet, are imported into the northern parts of India from Ghoorbund, and into the southern parts from the Persian Gulf. According to Simmonds, there are about 80 tons of this oil annually imported into Britain, the price being about 1s. per lb. But it is principally the produce of the Arzo tree, forests of which grow to the south of the Empire of Morocco, which produce an exceedingly hard species of almond. Its fruit consists of two almonds, rough and bitter In manufacturing the oil, they are well rubbed or shaken in a coarse bag, to separate a bitter powder which covers the epidermis; they are then pounded to a paste in marble mortars, and the paste subjected to a press. The almond is supposed to contain 46 p. c. of oil, but from 5¼ lbs. only 1 lb. 6 oz. can be extracted by the cold process and above 2 lbs. if heated iron plates be used. The oil of almonds is the basis of the great part of the liniments, ointments, and plasters, of the European pharmacists. It is however little used in Indian pharmacy, the oil of the Sesamum orientale answering perfectly as a substitute.—*Cat. Ex Cal.* 1862 —*Cat. Ex.* 62. *Simmonds. O'Shaughnessy.*

ALMORA in lat. 29.35. 2 N and L. 79-37. 9 E, a hill station and sanitarium in the north of India, and is built on the top of a ridge which runs east and west at elevations of 5,425° to 5,607 feet above the level of the sea. It is the capital of the British Himalayan province of Kamaon. It is 30 miles from Naini-thal. Government established a sanatarium at Lohooghut in the Almorah hills, a position unsurpassed in India for salubrity of climate and picturesque scenery and known to be highly beneficial to the European constitution. Major Drummond has written on its natural resources. A sulphur mine was discovered at a place called Aina, some 9 miles N. W of Almora, and the soil of the neighbourhood may yield quantities of saltpetre. It produces graphite, copper, and iron.—*Schl. Robt. Englishman. Dr. Buist's Catalogue.* See Kamaon; Sanatoria: Sorex cœculinus; Tea.

ALMS and Almsgiving have ever taken an important place in the religious systems of the world. So early as the time of Moses, the hebrews were commanded to give freely, and to throw their bread upon the waters with an assurance that after many days it would return to them again. In the buddhist, hindu and mahomedan religions, as also amongst the Romish Christians, it is not only good to give alms, but the giving bestows a merit on the individual and gifts are generally delivered with much openness, in such case differing from the injunction in Matthew vi. 2. when thou doest thine alms, do not sound a trumpet before thee. Hindu and mahomedan sovereigns bestow much to the shrines of their respective faiths, and, annually, on the Mahărram, the mahomedan kings entertain many Syeds on permanent pay. Some mendicants, alike hindus and buddhist, are not allowed to solicit or demand alms, but have to go with a quick step, and with or without a bell, through the streets,and without comment accept whatever is thrown into their wallet. And to describe a child as of an unknown father, a speaker will say, who can say, who threw the morsel into the beggar's wallet. Others solicit humbly as 1 Samuel xxv. 8 'Give, I pray thee, whatsoever cometh to thine hand, to thy servants, and to thy son David,' a mode of address not unfrequent among the hindus with whom a poor man often says to a rich man, 'Oh! father, fill the belly of thy son: he is in distress.' But the hindu pilgrims to sacred shrines are often exacting, even insolent, and, though rarely so to Europeans, will sit down at a door and refuse to stir until their day's food be given and the mahomedan fakirs of whom there are several sects, often continue to demand till alms be given. The buddhist mendicants are the least clamorous, but so completely is the act of offering to their shrines, the final individual merit, that costly gifts can be immediately removed, while outside the great temples at Rangoon and Prome such vast quantities of food offerings are daily thrown, as to be disgusting. All these classes have distinguishing costumes, the buddhist with his yellow robe; the hindu sanyasi or viragi smeared in ashes, and with ochre dyed clothes, and the mahomedan fakir may have a loin cloth, and taj or crown. Amongst them all, are many true ascetics, and recently in 1867, a hindu devotee was to be seen, who had, at that time sat for five years, in one of the Ellora caves; but there are amongst them also many impostors. *Ed*. See Buddhism. Fakir. Pinjrapole. Sanyasi. Viragi.

ALMS-HOUSE, for animals. See Pinjrapole.

ALMUG. The wood of Solomon's temple is called almug; this wood is also mentioned in the annals of Guzzerat, as that of which the temple to 'Adnath' was constructed. It has been supposed that the fleets of Tyre frequented the Indian coast: Sandalwood has been surmised to be intended.—*Tod's Rajasthan, Vol. I. p.* 282. *Harris' Nat. Hist.*

ALNUS NEPALENSIS, the Himalayan Alder, a tree of Kullu and Kangra, its bark is used in tanning, and its wood for gun-powder charcoal. The Hindi is Kunch, or Koish.

ALNUS NITIDA. *Hind.* This is a plant of Kaghan.

ALOE, The aloe belongs to a genus of plants belonging to the Liliaceæ, of which there are many species spread throughout India, 104 species having been introduced into the Calcutta Botanical Society's Garden, and Voigt enumerates 49. In Arabia says Burton the aloe, as in Egypt, is hung, like the dried crocodile, over houses as a talisman against evil spirits. Burckhardt assigns, as a motive for its being planted in grave-yards, that its Arabic name Saber (it is also called Siber), denotes the patience with which the believer awaits the last day. And Lane remarks, "the aloe thus hung over the door, without earth and water, will live for several years, and even blossom: hence it is called Saber, which signifies patience." In India it is hung up to attract eye-flies and mosquitos entering a room. Burton believes this practice to be a fragment of African fetishism and mentions that the Gallas, to the present day, plant aloes on graves, and suppose that when the plant sprouts the deceased has been admitted into the gardens of "Wak" the Creator.—*Burton's Pilgrimage to Mecca. Vol. III. p.* 350.

ALOE FIBRE. Pit Fibre of Madras.

Pita	TAM.	Nita	TAM.

Aloe Fibre; Pita Fibre or Pita,—are the commercial names given in Southern India to the fibres of the American Aloe, or *Agave Americana;* of the *A vivipera* or bastard aloe, the fibres of Fourcroya gigantea: those of the Adam's needles, the Yucca gloriosa, or common leaved, and Y. aloefolia, or Aloe-leaved Yucca, and Dr. Hunter also mentions the Y. angustifolia, Y. tenacissima; filimentosa and Y. regia as species yielding fibres, to all of which perhaps the same commercial term is applied. Two species of agave, the A. Americana, and A. vivipera, have become so naturalised in many countries and in India as to seem indigenous. They are however not yet sufficiently abundant in Southern India to be employed to any very great extent for the production of fibre, but as they take root and grow readily, there is nothing to hinder their very extensive application. Aloe fibre now forms an article of export from the Western Coast; The exports from all the provinces of the Madras Presidency of hemp, and aloes' hemp, during the three years 1852-53 to 1854-55 were as follows:

		Cwt.	Rs.
1852-53	Hemp	7,772	31,013
	Do. Aloes ...	2,682	27,095
1853-54	Hemp	6,112	27,113
	Do. Aloes, ...	3,658	21,506
1854-55	Hemp	9,263	37,770
	Do. Aloes ...	236	2,243
	Total Hemp	23,147	95,896
	Do. Aloes' Hemp...	6,576	50,844

The exports were chiefly to the United Kingdom, Bombay, Cutch, Guzerat, Sinde, Bengal and Indian French Ports. Aloe fibre was for several years employed in the Arsenal at Madras, as a substitute for English hemp, but its liability to rot led to its discontinuance, and the ease with which it is cut prevented its employment as a tow for packing shot. In Mexico, however, a highly prized thread is manufactured from the leaf fibre and made into the ropes used in their mines and for nets and rigging of ships. Also, the famous hammocks of Panama are made of Agave fibre, from the A. perfoliata (which Dr. Royle deemed identical with his A. Indica.) Dr. Hunter of Madras obtained a fibre two feet long, white and of fine quality, which readily took colours. He says that the A. Americana, or great American aloe, has a short cylindrical woody stem, terminated by fleshy, spiny, bluish green leaves and flowers once, on a tall flower stem, 20 to 40 feet. The roots as well as the leaves contain the ligneous fibres, "styled Nita" thread, useful for various purposes. The leaves are sometimes eight feet long, one foot broad, and five inches deep, and abound in these fibres of great length, and being tough and durable, their separation is effected by crushing or bruising, steeping in water, and afterwards beating. In applying them for the manufacture of fibres, it is very essential to have the sap removed as early as possible after the leaves are cut, and with this view a grooved cylinder press is found very effectual while frequent beating removes a thick viscid milky juice, which, if allowed to remain after cleaning, imparts a stiffness to the fibre. Several very fair samples were exhibited at the Madras Exhibition of 1857, soft, pliant and of good strength with some serviceable door-mats manufactured in patterns from colored fibres.—*M. E J. R. of* 1855 and 1857. *Drs. Royle. Riddell. Hunter. Balfour's Commercial Products. Simmonds. Faulkner.* See Aloe perfoliata, Agave Americana. Agave vivipera, Fourcroya gigantea: Yucca Aloefolia Y. gloriosa.

ALOE INDICA, *Royle.*

Aloe perfoliata. *Roxb* ii. 167.

Ghrito-kumari...	BENG.	Kadenaka katevala ...	...MALEAL.
Mok ...	... BURM.	Kumarika	... SINGH.
Indian Aloe ...	ENG.	Kattale..	... TAM.
Kanwar... ...	DUK.	Kālabanda ..	... TEL.
Ghi-komar ...	HIND.	K'lamanda...	... „
Ghigowar	„	Chinni kalabanda .	„
Ulna-tan	...MALAY.	Yerra kalabanda *var.*	„
Gabru... ...	„		

It has large reddish flowers, it is common in dry situations in the North-west of India, and is probably the source of some of the common aloes (musabhir) of the bazars. This Aloe is chiefly planted to form hedgerows, and makes an excellent fence. It flowers in the rains, and the stem grows to the height of ten or twelve feet. The leaves make a good common cordage, or rope, used for mats, &c.—The fibre is two feet long, white and of fine quality, and readily takes colours. The pulp is eaten by the natives, after having been carefully and repeatedly washed in cold water: they generally mix it with a little sugar and reckon it cooling. *Ainslie's Mat. Med. p.* 260, *O'Shaughnessy, p.* 665. *Dr. Hunter. Madras Exb. Jur. Reports. Voigt.* 658. *Roxb.* ii. 167.

ALOE LITORALIS, *Kœnig.*

Mus-ambar ...	AR.	Ulu-wattan.	...MALAY.
Sabr	„	Sibr	...PERS.
Kumari	.. BENG.	Bol-siah	„
Sibr	...EGYPT.	Taif Socotr... ...	...SP.
Sea-side Aloe	...ENG.	Kariapolam ...	...TAM.
Small Aloe	„	Sirrughu..	„
Chota-kanwar	.. DUK.	Sirru Kattalay ..	„
Mus-abbar ...	...HIND.	Chinna kala-banda..	TEL.
Ælwa	...HIND.	Bhulam	„

A reddish leaved species growing near the coast and plentifully at Cape Comorin and its neighbourhood. It yields good aloes. Ink is prepared from its juice and its pulp mixed with alum is largely used in conjunctivitis. *Waring. Drury. Useful Plants. Broadwood.*

ALOES.

Sibr also Sabr...	AR.	Gaharu : Alua-tan : also Alivah ...	MALAY.
Musibar	„	Katasha...	...MALEAL.
Musambar	„	Sibbar also Bol Siah ...	...PERS.
Pikros...	„	Sabr	„
Mok	...BURM.	Kumarilla ..	...SINGH.
Comarika ...	...CYNGH.	Carriabolam ..	TAM.
Bitter Aloes ...	ENG.	Mussambram ..	TEL.
Aloes	„		
Musambir... ...	DUK.		
Alia also Elva also Musabbar.	HIND.		

There are many species of the Aloe from which Aloes is known to be obtained, but the best known are

A. abyssinica, *Lam.* Abyssinia.

A. arabica, *Lam.* Syn. of A. variegata. Forsk.

A. Barbadensis, Peninsula of India.

A. commelina.

A. indica, *Roxb.* N. W. India. Syn.? of A. perfoliata, *Roxb.*

A. linguæformis.

A. socotrina, *Lam.* Socotora.

A. spicata, *Thun.* Cape of Good Hope, and

Aloe vulgaris. *Lam.* Aloes is the bitter, resinous, inspissated juice of the leaves and is imported into England under the names of Socotorine, East Indian or Hepatic; Barbadoes, Cape and Caballine aloes; the average imports being about 8,539 tons in 1841 and 1842. In the four years 1852-53 to 1855-56, Madras exported 515 cwt. valued at Rs. 4,037, and imported in the last year to the value of Rs. 2,686. In the year 1853, Britain imported to the extent of 33,333 lbs. of aloes and re-exported 157,506 lbs. to the various countries of Europe. The quality of the product is apparently more dependent on soil, climate, and preparation, than on any specific difference in the plant. The best kind is obtained by making transverse incisions through the leaves, and allowing the juice to drop out. This is evaporated to dryness by a gentle heat. Dipping the leaves in hot water facilitates the flow of the juice.—*O'Shaughnessy,* 665. *Commercial Products. O'Shaughnessy, Beng. Pharmac.*

ALOE SOCOTORINA. Socotorine aloe. A native of the island of Socotra, leaves minutely serrated; flowers scarlet at the base, pale in the middle, green at the point. Yields Socotorine aloes, also the true *hepatic* and *Mocha* aloes.—*O'Shaughnessy, page* 664.

ALOE SPICATA. A native of the interior of the Cape of Good Hope, leaves distantly toothed, with a few white spots, the flowers filled with purplish honey.—*O'Shaughnessy, page* 665.

ALOES WOOD. Aloe: the Lign Aloes.

αγαλλοχου ξυλαλοι	... GR.	Garo... ...	...MALAY.?
Kessina (the tree)	... SIAM.	Habulai ...	...EGYPT.?
Eaglewood ...	...ENG.	Aghil ...	...MALAY.?
Kavoriki ...	...JAPAN.	Karaghil ...	... ,, ?
Sak-hiaug ...	...CHIN.	Kala-garu... ...	... ,, ?
Kákal; Halhal	...AR.	Adlar-holz ...	...GERM.
Bois d aigle ...	...FR.	Agallochum ...	... HEB.

This natural product is repeatedly mentioned in the Old Testament, in Num. xxiv. 6: Prov. vii. 17: Ps. xlv. 8: Cant iv. 14: as a valued perfume. It is possible that the substance met with in commerce is obtained from more than one plant. See Agallochum; Aquilaria aloexylon; Calambeg, Eagle wood; Lign Aloes, Excœcaria.

ALOEXYLON AGALLOCHUM, a native of the Moluccas, Cochin-China. The wood is rather hard, in fragments of about one cubit in length, obtuse, furrowed, heavy, marbled ashy and brown, shining, brittle, very resinous; odour weak but agreeable, increased on friction, and very strong on burning the wood; flavour agreeable, balsamic and slightly bitter, and irritating to the throat. No analysis is on record of this substance; it is only known as a curiosity in Europe, but in the East it is deemed an invaluable tonic and stimulant remedy, a delicious perfume, and becoming offering for religious ceremonies.—*O'Sh. p.* 314 *Hog. p.* 286. See Aloes wood: Calambeg, Eagle-wood. Lign-aloes.

ALONSOA GRANDIFLORA, called the "maskflower," an ornamental plant, scarlet, easily cultivated in rich mould and multiplied by cuttings or seed.—*Riddell.*

ALOO BALOO. HIND. آلو بالو PERS. آلو بالو Cerasus caproniana.

ALOOBOA. A rather soft, coarse, open-grained, but not very light Ceylon wood.

ALOO BOKHARA. GUZ. HIND. PERS. آلو بخارا Prunella.

ALOR. The former capital of Sinde, near the site of which the Indus now flows. The ruins are said to be near Rori.—*Dr. Buist's Catalogue.*

ALOYSIA CITRIODORA, *Ort.*

Lippia citriodora. *Kth.*
Verbena triphylla. *L'Her.*

Much esteemed for the delightful fragrance of its leaves, and is much cultivated in gardens, generally thriving well.—*Voigt.* 471.

ALPAM. MALEAL. Bragantia Wallichii.—*Brown.*

ALPHABET, at present the Hindustani or Urdu, the Panjabi and the Persian are written and printed in the same character, but the Arabic, Bengali, Burmese, Canarese, Chinese, Guzerati, Hindi, Mahratta, Malayalam, Malay, Siamese, Singhalese, Tamul, and Telugu are all distinct tongues, each written and printed in a separate character. In the South of India, the Arabic numerals have been generally introduced into Government accounts. This was the recommendation of Sir Erskine Perry, and it has been supposed possible to use the Roman and Italian character for the other tongues and doubtless, it is quite possible to do so, but another generation will see the bulk of the people of India using English with very little knowledge of their respective mother tongues.

ALP ARSLAN, a hero famed in Persian story. He was a Seljuk Tartar. He was the son of Togrul Beg, and what Mahomed was to his Samanid suzerain, Togrul Beg was to his son, Togrul Beg achieved an independent kingdom in Persia. His son, Alp Arslan, extended it. He was a cotemporary of Baber. He ruled the Kirghis Kazzaks and could bring 300,000 men into the field. He overthrew the kalifat, and reigned from Bagdad. He followed the Euphrates into Georgia. In the beginning of the 5th Century of the Hijra, the Suljuk Tartar appeared in Khorassan, and in ten years, wrested it from the house of Ghazni. *It was ceded to Alp Arselan and formed a part of the Seljukide dominions until the extinction* of that race about 150 years posterior to Togrul Beg's having assumed the title of Emperor.—*Cyc. of India, Supp.* II. *p.* 494. *Latham's Nationalities of Europe* II. 73.

ALPHEUS, a prawn common in the Indian Ocean.

ALPHONSEA LUTEA, *H. f. and T.* Uvaria lutea, *Roxb.* II. 666, *Corr.*, *W. and A.*

Muvi	TEL.	Chiri dudduga ...	TEL.
Muvvi	„		

A fine tree of the mountains of Orissa, of Silhet and Ava.—*Hooker f. et. Thom.*

ALPHONSEA VENTRICOSA, *H. f. et. T.* Uvaria ventricosa—*Roxb*, ii 658.

A beautiful tree of Chittagong.—Hooker *fls. et. Thom.*

ALPHONSEA ZEYLANICA, *H. f. et. T.* Guatteria acutifolia, *Wall* Uvaria lutea.—*W. & A.* A branchy, leafy tree of Travancore and Courtallum.—*Hooker fls. et. Thom.*

ALPINIA, a genus of the Zingiberaceæ, all of them yielding aromatic fruits, and several of the plants being wholly aromatic. Voigt enumerates 11 and Roxburgh 12 species, and Wight in Icones figures A. allughas, calcarata, nutans and Rheedii, some of them have been removed to other species. A. angustifolium is said to be of Madagascar and the Mauritius, and A. aromatica is named as a plant of the eastern valleys of Bengal, the fruit of which is often sold as cardamoms. Alpinia porrecta, *Wall.* from China, and A. spicata, *Roxb.* from Sumatra, may also be noticed.

ALPINIA ALBA. See Galangal.

ALPINIA ALLUGHAS, Roscoe.

Hellenia Allughas, *Linn.*
Heretiera do. „

Ceylon Alpinia .	ENG.	Taruka.	BENG. HIND. SANSC.
Tara......	HIND. SANSC.	Mali-inshi-kua....	MALEAL.

This is found in Coromandel, in the S. Concan, in the Kotah jungle marshes, in the estuary of the Irawaddi, at Serampore, in Silhet, Assam. It has large and beautifully rose colored inodorous flowers, its roots are aromatic.—*Roxb. i. p.* 60, *Voigt.* 570, *Gen. Med. Top. p.* 171.

ALPINIA AURANTIACA, *Wall.* A native of Singapore.

ALPINIA BRACTEATA, *Roxb.* 163.

A Roxburghii, Sweet.

This is one of the smallest of the India Alpinias. It is a native of the Eastern parts of Bengal, and is found at Chappedong in Tennasserim. Its flowers are white, with a crimson yellow lip. *Roxb.*—163. *Voigt.* 571.

ALPINIA CALCARATA, Roscoe.

Alpinia cernua, *Sims.*
Renealmia calcarata, *Andh.*
„ erecta, *Redouté.*

A native of China, has large white flowers, their lips coloured with dark purple veins on a yellow ground.—*Roxb.* *i.* 69. *Voigt.* 571.

ALPINIA CARDAMOMUM, *Roxb.* Syn. of Elettaria cardamomum, Maton. See Cardamom, also Elettaria.

ALPINIA CHINENSIS. See Galangal.

ALPINIA GALANGA, *Swz.*

Maranta galanga, *Linn.*
Galanga major, *Rumph.*
Amomum galanga, *Lour.*

Kulanjan ...	AR. HIND.	Mahabhara vacha.	SANS.
Kulanjan...	BENG. DUKH. HIND.	Kulanjana ...	„
		Kulanyoga ...	„
Loose flowered Alpinia ...	ENG.	Dhamula ...	„
		Tikshna mula...	„
Greater Galanga	„	Suganda yoga...	„
Pan-ki-jar ...	DUK.	Koluwala ...	SINGH.
Chitta-ratta ...	MALEAL.	Perre-aretei ? ...	TAM.
Sugandha-vacha.	SANS.	Dumba-stacam ?	TEL.

A native of Sumatra, cultivated in the Indian Archipelago, Moluccas, Cochin-China, Singapore, Penang, Chittagong, Travancore, the S. Concan, Chittagong. It is a perennial plant, tubers slightly aromatic and bitter, the root-stock more so, pungent, acrid, and aromatic. They constitute the true galanga major roots of the druggists, and are used for the same purposes as ginger. It has a faint aromatic smell and strong pungent taste, with some bitterness, pungency and acridity, on which account it has fallen into some disuse, though in 1850, 64 tons were exported from Canton, value 2,880 dollars. —*Roxb. i.* 59. *Voigt* 570. *Ainslie, Hog. p.* 786. *O'Sh.* 652. *Simmond's Useful Plants.*

ALPINIA MALACCENSIS, Roscoe.

Maranta Malaccensis, *Rur.*
Galanga „ *Rumph.*
Renealma Sumatrana, *Donn.*

A native of the Moluccas and Chittagong; a beautiful stately plant: with large pure white flowers, their lips orange crimson.—*Roxb. i.* 164. *Voigt.* 571.

ALPINIA MUTICA. *Roxb.* A native of Penang, has large flowers, with lips crimson yellow, and orange edged.—*Roxb.* 167. *Voigt.* 571.

ALPINIA NUTANS, Roscoe.

Renealmia nutans, *Andr.*
Globba ,, *Linn.*
,, sylvestris, *Rumph.*
Zerumbet speciosum, *Jacq.*

Punag champa	Beng	Costus zerumbet	Pers.
Pa-gau-gyi	Burm.	Nodding-flowered Alpinia	Eng.
,, ,, theing	,,	Illachi	Hind.

This very beautiful plant is a native of the Eastern Archipelago, is found on the banks of the Salwyn and at Silhet and Coromandel. Cultivated in gardens: was brought by Dr. Irvine from Tonk to Ajmeer: the flowers are beautiful, and the whole plant is fragrant like the cardamom: the seeds do not ripen. Its leaves &c. when bruised, have a strong smell of cardamoms, and thus are sometimes named Ilachee or Punag champa.—*Roxb. p.* 65. *Voigt.* 571. *Genl. Medl. Top.* 171.

ALPINIA ROSCOENA, *Rom. and Sch.*

A. bracteata, Roscoe, not, *Roxb.*

A native of China.

ALPINIA SESSILIS. Kœn. Syn. of Kæmpferia galanga. *Linn.*

ALSANDA. Tel. అలసంద Dolichos Sinensis, *Linn.*

ALSATIA, for many years Okhamandel, Beyt, Dwarka, Umreyli, Korinar were quite an Alsatia, in India, but they have recently been put in order. See India 335 and Kattyawar in Cyc. of Ind. Supp. II.

ALSI. Hind. Linum usitatissimum.

ALSOPHILA, a genus of ferns, species of which occur in India and the islands of the Southern Ocean.

ALSOPHILA EXCELSA. The tree fern of Norfolk Island, measures forty feet in height, and has a magnificient crest of frondes. The black portion of the trunk is used for stringing by cabinet-makers.—*Keppel's Ind. Arch., Vol. II. p.* 184.

ALSOPHILA GIGANTEA, *Wall.* The *Tree-Fern* of Ceylon occurs at Darjeling, in Sikkim immediately below 6,500 feet, it is a widely distributed plant, common to the Himalaya, from Nepal eastward to the Malayan peninsula, Java, and Ceylon, and it ascends nearly to 7,000 feet in the outer Himalayas, of this Dr. Hooker saw but one species though another very similar or distinct species grows at the foot of the outer range. It is far more common than A. spinulosa from the level of the plains to 6,500 ft. elevation, and is found as far south as Java.—*Hooker, Vol.* I. *p.* 110 *and* 142. See Himalaya; Tree Fern.

ALSOPHILA SPINULOSA is the "Pugjik" of the Lepchas, who eat the soft watery pith: this tree fern grows in Sikkim, abundantly, in East Bengal and the Peninsula of India.—*Hooker's Him. Jour, Vol.* II, *p.* 13.

ALTAMGHA. Turkish, literally red stamp. A grant under the seal of the former princes of Hindustan recognised by the British as conferring a title to rent free land in perpetuity, hereditary and transferable from generation to generation. In reality, such were never so treated but invariably resumed as occasion demanded.—*Wilson. Ed.*

ALSTONIA, a genus of plants belonging to the Apocynaceæ, of A. macrophylla and A. spectabilis, Penang trees, of the former with large white flowers, nothing is known, and equally little of A. neriifolia, a Nepaul shrub and A. venenata of the Indian Peninsula, the last being Roxburgh's Echites venenata.

ALSTONIA OLEANDRIFOLIA. Syn. of Alstonia scholaris.

ALSTONIA SCHOLARIS, *R. Br. Don.*

A. Oleandrifolia, *Lodd.*
Echites scholaris, *Linn.*

Lutiana	Assam.	Ayugma chadda	Sans.
Chatin	Beng.	Septa-pima	,,
Satwin	Bom.	Ir-illay-palai	Tam.
Shaitan	,,	Book Attene	Anglo-Singh.
Lit-htuk	Burm ?		
Hori-kowan	Mahr.	Eda-kula-ariti	Tel.
Stawin	,,	,, ,, pala	,,
Pala	Maleal.	,, ,, ponna	,,
Mukambala	,,	Pala-garuda	,,
Rukatanna gass	Singh.	Eda-kuta-nati	,,
Ayugma parma	Sans.		

This considerable looking tree grows in the Moluccas, Bengal, in the vale of Sawitri, Assam, in the hilly parts of the South Konkan, and to a very large size in Ceylon. In Ceylon it is common up to an elevation of 3,000 feet. In Canara and Sunda it is not very common; but found near the ghats above and below of great size. It is also found in the Travancore forests, in Burmah? and in Assam. It seems to be known to the Malay race, the excellent boards or thin planks it affords being used by their children and by children in Ceylon and in the Indian Peninsula to write their lessons on; hence its name. The whole plant abounds in a milky juice. Its wood is white and close grained but rather coarse, and in Assam is much prized for beams and light work such as boxes, trunks, scabbards, &c. It is valuable for the turning lathe and, in Ceylon, is used for coffins. It is as bitter as gentian, and is possessed, it is said, of similar virtues. The bark is a powerful tonic and a fine medicine in bowel complaints: Dr. Gibson of Bombay has found it useful as a febrifuge, he published an account of its qualities about two years ago in the Pharmaceutical Journal; he gave it in tincture.—*Ind. Ann. Med. Sci. for April* 1866, *p.* 397. *Dr. Mason, Hogg's Vegetable Kingdom. Useful Plants. Dr. Gibson. Voigt. p.* 526. *Thw. En. pl. Zeyl. p.* 193.

ALSTROMERIA, a genus of flowering plants of the Natural Order Amaryllaceæ, cultivated in Indian gardens for their beauty.—*Voigt.* 596.

ALTAI, a great mountain chain on the west of Asia, between which and the Himalaya is the vast tract of pasture lands on which from time immemorial the nomades of High Asia have fed their flocks, and multiplied into those hordes (Urdu, Turki, camp) which from time to time have swept into Europe and into southern and eastern Asia. The southern mountains of the Altai chain are rich in gold and silver mines. Indeed altai, in Mongol, signifies gold. And the same may be said of the chain of the Khigan, which separates Mongolia from Daouria.—*Timkowski's Journey to Peking, Vol.* II. *p.* 284. See also Cyc. of Ind. Supp. II. Arians. India p. p. 312, 314, 315. Kalkas.

ALTAR, a sacred place inside Jewish and christian churches, and probably kept formerly in the open air, and duly reverenced in the present eastern mode alluded to in Psalm xxvi. 6. 'So will I compass thine altar.' This is a mark of respect, common among hindoos, and buddhists, crowds of whom may be seen morning and evening circumambulating their temples, from right to left, with their right hands towards the temple. The hindus call this Pradachlni, and it is a reverential act, which they sometimes also perform to men. Mahomedans also circumambulate but only the Kaaba at Mecca, which encloses the Hajar us Siah, or Black Stone that is believed to have fallen with Adam from paradise (Paridesh, fairy land), but in their religious poetry they often allude to it, as in the words, from the Persian, Encompass thou, the kaaba of thy heart, if thou hast a heart.

ALTAMSH. This emperor succeeded to the Patan throne, in 1210. He completed the conquest of the greatest part of Hindoostan proper, and appears to have been the first mahomedan that made a conquest of Bengal, the government of which was from this time bestowed on one of the reigning emperor's sons. It was during his reign (1221) that Changiz Khan, among his extensive conquests (perhaps the greatest, of any conqueror in history) accomplished that of the empire of Ghizni, putting an end to the dynasty of Kharasm, which then occupied that throne and driving before him the unfortunate Jalali, son of the reigning emperor; who swam the Indus to avoid his fury. Changiz, however, left Hindoostan undisturbed.—*Rennell's Memoir, p.* xlviii.

ALTERNANTHERA SESSILIS, *R. Brown.*

Achyranthes triandra, *Roxb. W. Rheede.*
" sessilis.
Alternanthera triandra.
" repens.
Illecebreum sessile.
Madana-gauti *also* Ponna-gantikura... TEL.

In many parts of the country, a common annual but greatly prized as greens by the natives. It sells at a high price.—*Jaffrey. Voigt. p.* 318. A campestris 717, and A. sessilis, 727, are figured in Wight's Icones. See Vegetables of Southern India.

ALTHÆA ALHUGAS. See Khabaji.

Althæa officinalis, *Linn.*

Guimauve... ... .. FR. | Gul khyar... ..HIND.
Althaia of Dios... ...GR. |

This is a native of Europe and of Cashmere, and used precisely as the marsh mallow. *O'Shaughnessy, p.* 214.

ALTHÆA ROSEA. CAV.

Holly hock .. ... ENG. | Gul khyra. . ... HIND.

This plant, with very large rose coloured flowers, has produced about 20 varieties of splendid border flowers. Its leaves are said to yield a colouring matter resembling indigo.—*Voigt.* 112. See Dyes, Holyhock, Khatmi.

ALTI MARAM. TAM. Hardwickia binata.

ALTOON SOO, the river Caprus of antiquity is called the Lesser Zab by Abul Fazl. It joins the Tigris below Diarbakr but it is wrong to call the river Altoon, which is an epithet only belonging to the bridge, from what it cost, Altoon meaning gold or money.—*Rich's Residence in Koordistan, Vol. II. p.* 13. See Tigris, in Cyc. of India, Supp. II.

ALTINGIA EXCELSA.

Araucaria excelsa, *H. K.*

The Norfolk Island Pine is seen 100 feet above the other forest trees, and resembles the Norway spruce, but its tiers are more distant. Its timber soon rots when exposed to the weather, and the tiredo, or auger worm, makes fearful ravages in the fences made of its timber, which seldom stand three years. It is generally used for building purposes, flooring, partitions, &c., and when kept dry and not exposed to the weather, it is more durable.—*Keppell's Voyage of the Meander, p.* 282.

ALTUMBADO, a town in India in Long. 90° 30' E. and Lat. 22° 58' N.

ALU. Affghan, Hind. Persian, Tel. a term with affixes and suffixes, employed in Persian and Indian countries to designate several shrubs, pomaceous fruits, edible fruits and roots. The Alu, simple, of India generally, is the common potato, the Solanum tuberosum. The Allu-i-Bokhara is the prune; the Nathar Allu, Batatas edulis, the sweet potato. In Telugu, the Allu-bachchali, is the Basella alba. It is, in Bombay, a name of Vanguieria spinosa; in Persia, of several Rosaceous plants and in Persia also the Aloo-baloo is the Cerasus caproniania. Alu-cha is a variety of prune. See Alloo: Aloo.

ALU. آلو Hind. Pers. Syn. of Potato.

ALU BOKHARA. آلو بخارا Guz. Hind. Pers. Prunes, Prunus domestica; also dried plums and apricots.

ALU GADDALU. Tel. ఆలుగడ్డలు Solanum tuberosum, *L.* The Potato,—*Br.* 74.

ALU-GARDAGAO. Pusht. الوگردگو a nectarine.

ALUGLUTA, ALGOCHH. Beng. Variegated Cymbidia, Cymbidium tessaloides.

ALUIN. Dan. Syn. of Alum.

ALU JA'H. Pusht. الو. A plum, abundant at Peshawar.

ALUKA. See Hirudo.

ALUM. Eng.

Shebb also Shabb.	Ar.
Ky-ouk Ky-en...	Burm
Chinakaram	Cyngh
Aluin	Dan.
Phatakari	Duk
Alun ...	Fr.
Alaun ..	Ger.
στυπτεζια ...	Gr
Phutki	Guz
Phatakri	Hind
Alume ..	It
Tawas... ...	Jav.
Alumen; Argilla vitriolata; Sulphas aluminaria; Aluminis et Potassæ-sulphas ..	Lat
Tawas ...	Malay
Zaj-balur, ...	Pers
Shab-i-Yemeni ..	„
Pedrahume ...	Port.
Kwassze...	Rus.
Puttaki... ...	Sans
Chinna karam ..	Singh
Allumbre .	Sp.
Paddicārām	Tam.
Patticaramu	Tel.

The first alum works known to Europeans were those of Edessa (formerly called Roccha) in Syria, and this salt has not hitherto been produced to any very considerable extent in India. At Vera Ismael Khan it is manufactured from a black shale, principally at Kalabag on the Indus, where some 430 tons are annually sold at the rate of 78 rupees per ton. The process of manufacture is almost identical with that employed in European alum works. Alum, occurs native in Nepaul and at Chownsilla. There are alum works at Kutch and at Kotkee in the Punjab. It is found in the Tenasserim valley, about 40 miles below Matah in a reddish slate clay. In the process of manufacture, the shales are roasted, and after being reduced to powder the alum is obtained by washing. Red alum is brought to Ajmere from Lahore and used in medicine as an astringent, but chiefly employed in dyeing: one maund sells for ten Rupees. Alum, is a common natural production, of which the salajit of Behar and Nipal is an example:—but the salajit of Nipal is a mixture of sulphuret of aluminium, sulphate of alumina and sulphate of iron; its composition is very uncertain. The alum of commerce however is n[illegible] a natural product, being manufactured from [illegible]um shale, alum rock, bituminous shale, and [illegible]te clay; and though an earthy salt is found [illegible]ative in small quantities, it has long bee[illegible] produced artificially. The great importation [illegible] alum is from China. About eleven hundred tons of alum were exported from China within a short period, chiefly to India. During the four years 1852-53 to 1855-56, inclusive, Madras imported 4,859 cwt. valued at Rs. 26,103, chiefly from Penang, Singapore, Malacca and Bombay This mineral is largely employed by the Chinese in dyeing, and to some extent in paper-making as in Europe. Surgeons apply it variously after depriving it of its water of crystalization, and in domestic life it is used for precipitating vegetable substances suspended in potable water. When Chinese fishermen take one of those huge Rhizostoma which abound on the coast, they rub the animal with the pulverized styptic to give a degree of coherence to the gelatinous mass. Architects employ it as a cement in those airy bridges which span the water-courses. It is poured in a molten state into the interstices of stones, and in structures not exposed to constant moisture, the cohesion is perfect, but in damp situations it becomes a hydrate and crumbles, a fact of which the whole empire was officially informed by the Chinese government about A. D. 1810. It was discovered that water had percolated into the mausoleum of Kiaking, from having been built too near to the mountain side, the alum cement imbibed moisture, segregated and opened the way for water to enter the tomb. In those peaceful days such an event was of such importance as to call forth edicts and rescripts, memorials and reports in succession for several months. The son-in-law of the deceased monarch to whose care the construction of the edifice had been entrusted was fined and degraded, and a statesman from Fohkien acquainted with the properties of alum was appointed to remove it to a short distance from the mountain. Alum was first introduced into China from the West, and until a comparatively recent period the best kind, called sometimes Persian, at others Roman alum was brought from Western Asia. An inferior article is manufactured at Shan-tung, Shan-se, Kiang-su, Hukwang, Sz'chuen, also in the South-western frontier and in Tibet. That from Sz'chuen is represented as having the property of coating iron with copper, by placing the former metal in a solution of rice-liquor and alum. The most recent editions of works on Materia Medica contain no reference to the mines in this province, the product of which have surpassed in quality the foreign, and rendered its importation unnecessary. Its manufacture there has not been long in operation. These are in the Sungyan hills bordering on Fohkien in the district of Pingyang, Wanchan prefecture, and in close proximity to Peh-kwan harbour (27°9' 10" N. 120° 32' 6" E. Ten alum making establishments were in operation, which, with the exception of one on a hill opposite, occupied about a mile of the side of a lofty hill. The works are adjacent to the quarries from which the alum stone seemed to crop out of decomposed rock of the same lithological character. The stones were thrown into a fire of brushwood where they burnt with a slight lambent flame and as they cracked, the fragments were raked out broken into small pieces, and macerated in vats. Subsequently the disintegrated mineral was thrown with water into a vessel having an iron bottom and sides of wood and boiled for a short time. The lixivium was then poured into large reservoirs where it crystallized into a solid mass. Blocks of alum weighing about fifty catties each were hewn out of the reservoir and carried in this state in bamboo frames one on each end of a porter's pole to the place of shipment, where it is broken into fragments. When not designed for immediate exportation, the blocks are stored away for drying. On reaching the depôt the alum is found charged with a double quantity of moisture, the porters being obliged to deliver a certain weight, they dip their burdens in the mountain streams which they pass in the journey. Judging from the number of labourers engaged in transporting the mineral, the quantity brought from the works could not be less than eighteen tons. This was represented as less than an average day's work, as labour was in such demand just then for agricultural purposes that double pay was given;—and aged men, and women, with boys and girls were pressed into the service. Assuming that day's product as a basis for calculation and making an allowance for rainy days, we may safely estimate the annual supply as between five and six thousand tons. The quantity consumed by the dyers of Ningpo prefecture alone, being nearly twenty-two tons per annum is corroborative of this estimate. The supply is literally inexhaustible. Five dollars-and-a-quarter a ton at the landing would afford the manufacturer a fair profit. It often fetches much more, as there has been an increasing demand for the article owing to the greater facilities afforded for exportation from Ningpo in foreign vessels. The Wanchan Alum is equal to the best Roman, a roseate tint in some specimens indicates the presence of minute quantities of iron. "We have no means of ascertaining the precise geological position of the rock from which this alum is procured; some circumstances seem to indicate it to be a new mineral. It is stated that no potash nor any other material is employed in the works. Granitic and porphyritic rocks abound in the vicinity, and some parts of the district produce iron and silver. According to the Wan-chan Topography, the working of silver was discontinued in the reign of Wan-lih (1610) in consequence of imperial prohibition. This part of the coast has recently become the seat of extensive poppy cultivation for the bane of the Chinese race. As a contribution to the physical description of the alum district, we would add that the typhoon of September 1855 was preceded by a rising of water in wells and ponds many miles inland. When the cyclone reached the coast it submerged about a hundred square miles, occasioning a vast destruction of life and property. The waters of the sea were retained in the country by strong easterly winds for several days leaving a strip of land bordering on the sea quite dry.—The Wan-chan rock, is a grey felspar porphyry with minute brilliant white specks, which may be arsenical pyrites, silvery mica or sulphuret of nickel. When polished, it shews a very pretty surface and a small portion pulverised and calcined and then boiled gave sulphuric acid and alumina to the usual tests, so that it is probably an alum porphyry, i. e. a porphyry containing Alunite.—*H. Piddington, in Journal of the Asiatic Society of Bengal, p.* 366. *Calc. Cat. Exhib of* 1862. *Honorable Mr. Morrison's Foreign Commerce with China. Irvine's General Medical Topography of Ajmir. p.* 149. *O'Shaughnessy. Bengal Pharmacopeia, p.* 366. *Simmond's Commercial Products. Faulkner's Commercial Dictionary. North China Herald,* 23*rd January* 1856."—*China Herald.* See China. Punjab. Salt Range.

ALUMCHUN, a town in India, in Long. 81° 30′ E. and Lat. 25° 33′ N.

ALUMINUM, in its purest state, exists in the sapphire, and less pure in corundum and emery and in many minerals.

ALUMNUGUR, a town in India in Long. 79° 58′ E. and Lat 27° 46′ N

ALUMU KADA. Tel. అలుముకాడ. Ipomœa filiformis.—I. Filicaulis convolvulus medium *R.* i. 474.—*Rheede.*

ALUMZYE MOMUNDS, a branch of the Momund tribe, whose head quarters are at Gandao. See Supp. ii. *Balfour's* Cyc. of India p. 510.

ALUNDY, a place near Poonah where Vishnu is believed by the hindus to have become incarnate about the 11th or sixth century. See *Balfour's* Cyc. of India, Sup. ii. Art. Naneshwar.

ALUNJ. Pers. A plum.

ALUTE, Mahr. See Baluti.

ALUTNEURA, a town in India in Long. 80° 57′ E. and Lat 6° 35′ N.

ALUWIHARA. See Sripada.

ALVA. A sea weed called Awa Nori, is gathered on the sea beach of Japan when dried and roasted and rubbed down to a very fine powder, it is eaten with boiled rice, and sometimes put into Miso-soup.—*Thunberg's Travels, Vol. III. p.* 115.

ALVAR TINNEVELLY, a town in India n Long. 78° 0′ E. and Lat. 8° 36′ N.

ALWAN, Kashm, or **ALWAN-I-SADAH**, he undyed shawl stuff.

ALWAR. Tam. twelve holy hindus of whom Ramanuja was one, the authors of the Dravida Prabandha, or Tamil Veda.—*Wilson.*

ALWUR, a town in India in Long. 76° 41′ E. and Lat. 27° 35′ N.

ALYA SANTANA, or Nephew Inheritance, in Canara, the law of descent to sisters sons, the descensus ab utero, and the management of property vests ordinarily in the females. See Cyc. of Ind. Supp. ii. p. 110, Polyandry.

ALYGUNGE, two towns of this name in India one in Long. 79° 9′ E. and Lat. 27° 30′ N., the other in 81° 45′ E. L. 26° 20′ N.

ALYPOORKERA, a town in India in Long. 79° 17′ E. and Lat. 27° 22′ N.

ALYSICARPUS, a genus of small trees or under-shrubs of India and Burmah of the natural order Fabaceæ formerly styled Hedysarum A. bupleurifolius; Heyneanus; styracifolius; monilifer; and vaginalis are known.—*Voigt. p.* 224.

ALYSSUM SAXATILE; a flowering plant, cultivated in India.

ALYXIA a genus of the natural order of plants Apocynaceæ. The bark of A. stellata of the Malay Archipelago, Society and Friendly Islands, contains benzoic acid, and is possessed of properties analogous to those of canella and Winter's bark, now used in Germany in chronic diarrhœa and nervous disorders. A. gynopogon of Norfolk Island and A. Moonii of Ceylon, are also known.—*O'Shaughnessy, page* 448.

AM. Beng. Hind. Sans. आम fruit of Mangifera Indica.—*Linn.* The Mango.

AMADA, Beng. Mango ginger. Curcuma Indica. Curcuma amada.

AMADA KADA (*or Golagondi.*) Tel. ఆమడకాడ (గోలగొండి) Cyanotis axillaris, *Schult.*—Tradescantia ax.—*R.* ii 118.

AMADIYAH, a district in Kurdistan near the Van and Taurus, for about 800 years the head quarters of the Kurdish family of Behdir, who trace their descent from one of the early Abbasside kaliphs. The Turks never interfered with Amadia till after the overthrow of the Mir of Rowandiz, when it passed without a struggle into the hands of Rashid pacha.

AMADOU. Eng. Fr.

Spunk... ...	Eng.	Tondewod.. ...	Eng.
German Tinder...	,,	Agaric Amadouvier.	Fr.
Surgeons Agaric.	,,	Zunderschwamm...	Ger.

A substance similar to Agaric from the Polyporus Igniarius.

AMALA KAMU, S. (*Usirika,*) Tel. ఆమలకము-(ఉసిరిక.) Emblica officinale, *Gaertn.*

AMALARI, a division of the Brahui tribe Bizungi, on the same hills as the Minghal. They are a violent people much addicted to rapine.—*Balfour Cyc. of India, Sup.* ii. *p.* 492.

AMALE ARISI. Tam. a variety of rice Oryza sativa.

AMALGAM, That used in dentistry consists of gold of purest kind and tin, each one part, silver two parts. Melt and when required for use, reduce to a fine powder and make an amalgam with mercury. See Metal. Alloy.

AMAKARUM, Maleal. അമുക്കറം Physalis somnifera.

AMANAKU ARISI. Maleal. ആമണക്ക അരിശി Seeds of Ricinus communis.

AMANDELIN. Dut. **AMANDELN.** Ger. **AMANDES.** Fr. Amygdalus communis. Almonds.

AMANOA, a genus of small trees, of Ceylon, amongst which Thwaites enumerates A. collina which is Roxburgh's Cluytia collina, also A. ferruginea growing up to 3,000 feet and A. patula, (Wights A. Indica,) in the hotter parts of the island.—*Thwaites En. Pl. Zeylan. p.* 28.

AMANOUBANG, an independent territory situated towards the south-west end of Timor, immediately to the eastward of the Dutch territory of Coepang. Its limits are unknown, and probably vary as the power of the chief becomes increased or diminished. It is the best organized and most powerful of all the petty states of Timor, and is the only one that can give uneasiness to the Europeans whose establishments are scattered along the north-west coasts of the island. A few years ago, the chief of this territory took offence at some act of aggression on the part of the Resident of Coepang, the principal settlement of the Dutch on Timor, and kept that town in a constant state of alarm by incursions of horse-men armed with spears, and mounted on the small, but hardy horses of the country, cutting off the supplies, and killing or carrying away the inhabitants from the very skirts of the town, until means were found to appease his hostility. The Bay of Amanoubang, the "Bay of the Pearl Bank" of the charts, is a deep bight situated 45 miles to the eastward of Point Ousina, the S. W. extreme of Timor. It is bounded by Butu Puteh, a steep white rocky head-land, 800 feet high, on the west, and Point Oubelow on the east. The head of the bight consists of low-land, covered with the "tuak" or Lontar Palm. The chief trading port of the territory is Outouke, about 15 miles to the east of Point Oubelou.—*Jour. Ind. Arch.*

AMAR. Tel. Cable.

AMARA COSHA, by Amara Sinha also called Amara Deva, is the most esteemed of all the sanscrit vocabularies. The author was one of the nine poets who adorned the court of Vicramaditya. He seems to have been a buddhist. He is supposed to have lived about A. D. 948.—*Balfour Cyc. of Ind. Supp.* ii. *p.* 378.

AMARA DEVA, or Amara Sinha. See Author of the Amara Cosha. *Cyc. of Ind. Supp.* ii. *p.* 378.

AMARANTUS, a genus of plants of the natural order Amarantaceæ, several of which with their bright coloured leaves, are ornamental; Wight, in Icones, gives sixteen species and Voigt. 23 species, one of them A. oleraceus, furnishing four varieties all used as greens. A. anardana, A. frumentaceus and A. Lappica are named as producing seed in sufficient abundance to be gathered as grain crops. Their stems and leaves are used as greens, and spinach, and nearly all may be used in medicine, as emollients, enemata, cataplasms, diluent drinks, &c. A. Blitum, Linn. of Europe, A. campestris, Willde: have minute greenish flowers as also has A. polystachys, Willde. The Kupei-kiré of the Tamuls.—*Rox. iii.* 602 611. *O'Shaughnessy*, 528. *Voigt.* 315-6-7. *Ainslie* 253. *Jaffrey's Hints to Amateur Gardeners.* See Cyc. of Ind. Vegetables of Southern India

AMARANTUS ANARDANA, Honig., its seeds are gathered and used as food grains. *Honig.*

AMARANTUS ATROPURPUREUS. *Roxb.*

Banspata lal-nuti	BENG.	Shegapu Thandu-kirey ..	TAM.
Lal-untiya... .	„	Yerra totakama kura ...	TEL.
Lal Nuti	„		
Kunka Nuti	„		

Mr. Jaffrey thinks that this is probably a variety of A. oleraceus, an annual with beautiful red foliage and diminutive flowers. It gives a good spinach though seldom used by Europeans.—*Jaffrey. O'Shaughnessy. Voigt.* 316. *Roxb. III.* 608.

AMARANTUS CAMPESTRIS. *Willde.*

Churi-ki-baji. ..	DUK.	Sirru kirai .	TAM.
Mekanada.	SANS.	Siru kura ..	TEL
Ganna... ..	„		

This has minute greenish flowers, Mr. Jaffrey mentions that A campestris and polygonoides? are prevalent weeds; commonly cultivated by the native gardeners for spinach, during the hot months: require to be used when 3 or 4 inches high; are of rapid growth and should be sown every third or fourth week.—*Jaffrey. Voigt.* See Vegetables of Southern India.

AMARANTUS CAUDATUS, *Linn.*]

This, the Loves bleeding of our gardens, is commonly cultivated for ornament. *Voigt.* *p.* 317.

AMARANTUS CRUENTUS.

Batu zard... ... ...PERS.

Bread cakes made from its seed are a common food with the peasants of the Himalayas (Is this Honigbergers's. A. anardana.)

AMARANTUS FASCIATUS, *Roxb.*

Tun-tuni-nuti	BENG.	Băn-nuti	BENG.

Has minute greenish flowers.—*Voigt.* 316.

AMARANTUS FRUMENTACEUS. *Buch.*

Bathu	PANJ.	Pungh-kirai...	TAM.
Kirai	TAM.		

A large luxuriant species grows in the hills between Mysore and Coimbatore, also on the Neilgherries; seeds ground into flour. In the Calcutta Botanic Garden 40 square yards, sown in June, yielded 21-lbs. of clean seed in September; the plant also grows from October to February, inclusive. Mr. Jaffrey says it is also cultivated by the hill people for the seeds, which are ground into flour, and form one of their principal articles of diet. Seeds used by the hindus as the kernel of comfits. The leaves are of a reddish brown colour, and the plant averages in height from 4 to 6 feet.—*Jaffrey's Hints. O'Shaugh.* 528. *Voigt* 31. *Cleghor Panj. Rep. p.* 66.

AMARANTUS GANGETICUS. *Linn.*

Lal-Shak	BENG.	Lal-Sag	HIND.
Ranga-Shak ...	„		

Sown broad-cast and always procurable. The leaves are very generally used as spinach. There are many varieties, with colours from green to bright red. They cannot be cut.—*O'Shaugh. p.* 528, *Riddell. Voigt.* 316, *Roxb. iii.* 605.

AMARANTUS HYPOCHONDRIACUS. *Linn.* Is the Prince's feather of our gardens.

AMARANTUS LANCEOLATUS. Banspata nuteeya, Beng. bamboo-leaved amaranth, the leaves and tender tops are eaten by natives in their curries and used as emollient poultices.—*O'Shaughnessy, p.* 528.

AMARANTUS OLERACEUS. *Linn.*

var a. viridis | c. albus.
b. ruber | d. giganteus.

Shedakh-nindi ? ?....	AR.	Tota kura	TEL.
White variety, Sada-nuti.... .. .	BEN.	The var. alba Tella tota kura..	„
Dănt-ki-bhaji. . ..	DAN.	The var rubra ? Yerra tota kura ..	„
Dăt-ki-bhaji..	DUK.	The var. gigantea Mokka also Perugu	„
Country greens ...	ENG.		
Sădă-tam-pala ..	SINGH.		
Thandu-kire... ..	TAM		

This amarantus is more than all the others in use with Europeans in India, the peeled stalks resemble asparagus and are pleasant to eat. The variety A. viridis the common green sort is most cultivated: A. ruber, with its bright stems but rusty coloured leaves is showy in a garden. A. albus, with white shining stems, is the sada nuti of Bengal and, is much cultivated there; but the A. giganteus from five to eight feet high, is that which Europeans mostly esteem.—*Jaffrey's Hints. Roxb. iii.* 605. *Voigt.* 316.

AMARANTUS POLYGAMUS. *Linn. Roxb*

var. β ruber.

Champa nuti	...BENG.	Mulli kirey... ...	TAM.
Champa Nuteya, (VAR. lal.) ...	,,	Dela kura, also Doggali kura, also Erra Doggali kura ..	TEL.
Chumli sag ...	HIND.		
Chulai	,,		

This is cultivated all over Southern Asia. There are three or four varieties with various coloured leaves. It is one of the best of the Indian spinaches; it is raised from seed during the hot months; and requires to be sown thick and eaten when young; generally used when two feet high. The humbler natives are seldom able to purchase this vegetable, it being too costly.—*Roxb.* iii. 603. *Voigt.* 315. *Jaffrey's Hints.* See Choolaee Mulé Kiré, Vegetables of Southern India in Cyc. of India.

AMARANTUS POLYGONOIDES. *Roxb.*

Chiru nuti... ..	BENG.	Chira-kura... ...	TEL.
Chilu nutiya ...	,,		

Very small, and common garden weed, used as a pot-herb, and deemed by natives wholesome for convalescents.—*O'Shaughnessy, page* 528. *Roxb. iii.* 602. *Voigt* 315.

AMARANTUS SPINOSUS. *Linn. Roxb. W. Ic.*

Kanta nuti ..	BENG	Mulu tota kura ...	TEL.
Thorny Amaranth	ENG.	Nalla doggali ...	,,
Mulu kiré.. ...	TAM.	Erra mulu goranta.	,,

This annual grows as a very troublesome weed all over southern India and Burmah. It has sharp spines in the axles of its leaves and it is troublesome to pick them, though they make a good spinach and potherb.—*Roxb. iii.* 611. *O'Shaughnessy,* 529. *Jaffrey's Hints. Mason, Voigt,* 317. See Moolakarang Varay Puttay, also Vegetables of Southern India in Cyc. of India.

AMARANTUS TRICOLOR is remarkable for its variegated leaves, the centre of it is red and pale yellow; propagated each by seed only.

AMARANTUS TRISTIS. *Linn.*

Mat-ki-bhaji DUK.	HIND.	Kuppi kiré also Ara kiré	TAM.
Jillaka...	SANS.	Koya tota kura ...	TEL.

This annual is cultivated and held in great esteem by the natives. It may be cut down several times without destroying the plants, which are much used for food.—*Voigt.* 315. *Roxb. iii.* 604. See Mat Ki Bhaji, also Vegetables of Southern India.

AMARANTUS VIRIDIS. *Linn.* Has minute greenish flowers and its tender tops are eaten, but less esteemed than others of this genus.—*Roxb. iii.* 615. *Voigt.* 316.

AMARA-PALA. An ancient hindu dynasty.

AMARAPURA. A former capital of Burmah, the name is derived from the Pali and means the immortal city. It was re-occupied when Ava was abandoned, and Ava has been nearly a wilderness for 20 years. Each Burmese king founds a new capital, and Amarapura was abandoned after the recent embassy.—*Yules' Embassy, p.* 130. See Burma. Marble. Ruby-mines. Shan.

AMARASINHA, a Sanskrit lexicon so called.—*Hyder's Eastern Monachism, p.* 433. See Amaracosha.

AMARAVATI, the captial of Indra: a name given to several towns in peninsular India, usually spelt Oomraoti or Amraoti. *Taylor.*—See Indra.

AMARAVATI, Lat. 20° 55; N. and L. 77° 46' E. a large town in Berar, built on a plain with hills to the west. It is now part of the Hyderabad Assigned Districts under a British Commissioner. It is 928 ft. above the sea.

AMARAVATI: A ruined town on the banks of the river Kistnah containing numerous antiquities in the form of sculptures, the majority of which seem to belong to a magnificent dehgopa or Buddhist shrine, built on a mound of 150 feet diameter, now converted into a tank. It is called Dipaldinna (translated by Colonel Mackenzie the "Mound of Lights") which resembles the name of a similar place of Buddhist celebrity in Ceylon (Dambadinna) It is in the vicinity of Masulipatam from which place many of the sculptured marbles were brought to Madras by Mr. Walter Elliot and thence sent from the Madras Museum to England Their inscriptions were translated by the Reverend W. Taylor. They are somewhere of the period A. D. 600 to A. D. 1000, are in sanscrit but neither pure ncr of correct orthography. The character used in the inscriptions is Ceylon, Seoni, and Andhra, passing to florid Southern Indian, and has much resemblance to that of some of the rock inscriptions at Mahabalipur. Buddhism is called the kingdom-preserving and the very excellent religion of the people which it is hoped will endure for ever. One of the inscriptions refers to the foundation and endowment of some Buddhist institution. It says, "place is not to be given to the disputer of Buddhism;" nevertheless praises those who relieve the guest and the brahman, and considers injuries to the gods and brahmans as great sins!! At the date of the inscription, therefore, there was not any hostility between buddhists and brahmans.—*Vol. VI. p.* 218. *Jo. B. As. Soc.* See Inscriptions 372.

AMARDAD-SAL. A Parsee holiday, held on the day following the Khurdad-sal, of which festival it is merely a continuation.—*The Parsees.*

AMARI, a seat on an elephant, with a canopy.

AMARKANTAK, L. 22° 38'; L. 81° 46', in Malwa, a place celebrated in hindu mythology, about 160 miles E. of Jubbelporé.

The mean height above the sea of the

plateau Vishnapûri is 3,590 feet. The Tank Pâch Kund, the source of the Nâ bâda is 3,504 feet. The top of the hills skirting the Vishnupûri plateau to the north 3,700 feet, 1 0 feet above the Vishnapûri plateau, by aneroid. It was near this that the late Captain Jenkins of the Madras Army discovered coal. See Madras Museum Records. Schlagentweit.

AMARPUR, a town in India in Long. 86° 44′ E. and Lat. 26° 48′ N.

AMARYLLIS, from amarysso, resplendent, a genus of plants, of the natural order Amaryllaceæ, which are much cultivated in India as garden flowers. They are known as Sosan the Susan of christian names.

AMARYLLIS AUREA, GOLDEN AMARYLLIS, the زرد سوسن Zard or yellow sosan, HIND. is cultivated in Ajmere gardens and very ornamental. A. Belladonna, has large veined greenish white and carmine coloured flowers. A. frittilariá, is the snakes head lily, and Voigt. and Riddell mention also A. Americana, Asiatica florida; capensis: equestris Griffithiana granidiflora; Josephinæ; Mexicana: and substriata.—*Voigt.* 586. *Riddell*; *Hog.* 768.—*Gen. Med. Top. p.* 188.

AMARYLLIS LATIFOLIA L'HERIT. Syn. of Crinum latifolium, Herb.

AMAS. SANSC. TEL. moonless period of the month. See Amavasya.

AMASSIA once the capital, and one of the oldest and most opulent cities of Pontus or Cappadocia is celebrated as having been the birth-place of Strabo; The city stands in the narrowest part of the valley, and amid its boldest scenery; *Porter's Travels, Vol. II. p.* 706-711.

AMATISTA. IT. Amethyst.

AMATUM. TEL. Spondias mangifera, Pers. S. dulcis.

AMAVASYA. SANSC. TEL. TAM. The conjunction of the sun and moon, the ides of the month, also called Arcendu Sangama (written Arca Indu.) Ama, and Darsa Tithi, are other names given to the Lunar day, on which the conjunction occurs; which in the kalendar is always reckoned the 30th of the lunar month. Amavasya Tithi, the lunar day of the moon's change. *Captain Edward Warren's Kala Sanhita.*

AMAWATURA, a book of legends in Singhalese.

AMBA نبه | PERS. SANS. Mango fruit, also Mango tree.

AMB, a town with an old mahomedan garden, containing gigantic specimens of toon, champa, artocarpus integrifolia, mimusops elengi, cupressus sempervirens, and platanus orientalis.

AMB-ADA. BENG. Mango-ginger, Curcuma amada.

AMBAGAME, a town in India, in Long. 80° 39′ E. and Lat. 6° 5′ N.

AMBA KURB. MAR. Cupania canescens.

AMBAL, a Dutch Residency division near Karang bolloug.

AMBALLA, a large military station in the Panjab, in Lat. 30, 21·4 N and L. 76, 48,,88 and 1026 ft. above the sea.—See Umballah.

AMBALA CHETTU. అంబాళచెట్టు. Spondias mangifera, *Pers*—R. ii, 451.

AMBALAKAREN, a titular appellation of the Kollar or Kollari tribes of the Tondamans country. See Cyc. Ind. Supp. ii p. 332.

AMBALITA, a small tree of Ganjam, the juice of the leaves is mixed with mercury and taken internally for rheumatism and other diseases.

AMBALU. MALEAL. Lac.

AMBAR. MALAY Amber.

AMBARA, TEL. Spondias dulcis.

AMBAR BATTI, HIND عنبر بتي A perfumed pastille, used in India.

AMBAREEPOORAM, a town in India, in Long. 83° 5′ E. and Lat. 17° 45′ N.

AMBARI, DUK. MAHR.

Pat . . India.
Dekhani hemp. Bombay.
„ Brown „
Brown hemp of Bombay.
Pallangu hemp of Madras.
Pulchi fibre „
Puli numaji of Coimbatore.

Gong kura ... TEL.
Mæsta Pat ... BENG.
Ambaya pata in PURNEYA.
Sunni of SAHARUNPORE.
Valaiti Sunn of MUTTRA.
Kudrum of ... BAHAR.

This fibre is manufactured from the Hibiscus cannabinus largely used in India and exported as one of the hemps: *Riddell Royle.*

AMBATI MADU. అంబటిమాడు. Trianthema obcordatum, *R.* ii. 445.

AMBATTEEYO an outcaste race in Uvah in Ceylon, deemed so degraded that even the Rodiya prevent their dogs from eating the fragments of food cooked by them.—*Tennant.*

AMBAYAPATA IN Purneya, Ambari.

AMBEITA, a town in India, in Long. 77° 18′ E. and Lat. 29° 50′ N.

AMELETIA, a genus of the Lythraceæ, of which are known A. indica, D. C. and A. rotundifolia W. and are the Ammania nana and rotundifolia of Roxb. *Voigt.*

AMBER, or DUNDHWAR the early capital of Jeypore built by Jey Singh, and was a city of great architectural beauty. According to Tod, Amber gave its name to a Rajpoot dynasty, of the Soorya Vansa race, a scion of Nirwar, (*Tod*) and according to Prinsep, the Ranas of Amber are of the Cuchwaha race of Rajputs, who claim descent from Cush second race of Rama, king of Ayodhya, who migrated and built the fort of Rotas, on the Sone. Authentic history commences in A. D. 294, with Raja Nola, who founded Narwar or Nishidr, The political power of this family dates from Hamyun, the son of Baber.—*Thomas' Prinsep's Antiquities, p.* 259. *Tods Rajasthan, p.* 299,331.

AMBER.

Inkitriun	Ar.	Bernstein	Ger
Kuruul Bahr... ...	"	ηλεκτρον... ...	Gr
Ambeng	Burm.	Chashmal	Heb
Kahruba...	Duk. Hind. Pers.	Electrum	Lat.
		Succinum	Lat.
Lynxstone	Eng.	Lapis Lynci... ...	Lat.
Ambre	Fr.	Amberalso Anbar	Malay.
Electron	Ger.	Ambar	Tam.

Amber does not appear to have early become known to the Hebrews. It is mentioned in Ezekiel i 4 and 27 and viii. and 2. Thales noticed it B. C. 600 and Theophr astus B. C. 300. It has always been held in estimation by eastern nations and though less so latterly, it continues to be so to a considerable extent as a medicinal substance and for ornament. It is found on the shores of the Baltic and the Adriatic, on the eastern coast of England, and that of Sicily and in Prussia it was obtained by sinking shafts to the depth of 100 feet, to a stratum of fossil wood, in which the Amber is found in rounded pieces from a few grains to five pounds in weight. It is obtained along the coast of America, Africa and the Archipelago. The Burmese, perhaps more than any other natives, use it. But in every bazar of India, the medicine venders retail what they call Amber, though the bulk of this is a scorched gum or copal dried by artificial heat or fossil copal. Amber is of a yellow colour varying from a bright golden yellow to yellowish white, it is semi transparent, and shining with a resinous lustre. It is now generally believed to be the gum of some coniferous plants, and often has ants, flies or other insects imbedded in it, indicating its once softer condition It is electric when rubbed, hence its latin and greek names, and the Roman ladies highly prized it. The Japanese particularly valued the transparent yellow kinds. Dr. Hooker tells us (Journ. ii. 194) that the lumps of Amber forming the necklaces of the women of Sikkim (called Poshea) are procured in East Tibet, but he surmises that they are brought from Burmah, where Dr. Bayfield first and since his time Yule tells us (Embassy, p. 147) that it is found in Burmah, in the valley of Hookhong (which takes its Burmese name of Phyendwen from the Amber mines) near the sources of the Kyendwen in lat. 26° 20', and close to the Assam border. It is found with small masses of lignite (which furnish the indiction in seeking for it) in a dark carbonaceous earth covered with red clay. It is extracted from square pits, reaching sometimes to a depth of forty feet, and so narrow that the workmen ascend and descend by placing their feet in holes made on two sides of the pit, no sheeting being used. In 1837, only about a dozen people found employment at these mines. The Amber mines lie on the south side of the valley of Hook-hong on the Payendwen, which produces salt, gold and ivory in addition to Amber. Yule's account does not correspond with that of Mr. Walton who mentions that Amber is found in the Hu kong valley occupied by the Singpho, in the Payen toung or Amber Hills, a tract of small hillocks the highest not exceeding fifty feet: pits about three feet square are dug to a depth of six to fifteen feet, in a reddish and yellow clayey soil, which when first broken has a fine aromatic smell, but afterwards acquires that of coal tar,. The common mixed Amber is sold at Ava, at 2½ tikals a viss, or 4 rupees for 1½ seers, the price varies according to colour and transparency, but the best kind is expensive. Amber is frequently gathered in considerable lumps in the vicinity of Samar and the Bissayas islands. Ainslie mentions that it has been found in the Dekhan, of a fine quality, but very scarce; also occasionally in Travancore, but this is likely the copal of the Venkully Cliffs in Travancore also fonnd in lignite. It is found on several islands of the Indian Archipelago and in small quantities on the coast of China and Tunking, but large quantities of the fossil copal of India are exported to China and sold as Amber. Transparent pieces are the best. *Mason. Faulkner. Yules, Embassy, p.* 147. *Ainslie's Materia Medica. Hooker Him. Journ.* ii. 194. *Walton's Stat. p.* 38 9. *Bingley* i. 162. *Thunbe'g's Hist. of Japan* ii. 51. *Balfour, in Madras Museum Roecrds.*

AMBERBOA, a genus of flowering plants of the Natural Order Matricariaceæ, of which are known A. Indica, with largeish purplish rose colored flowers: A. odorata, with its variety ambracea, with bright scented sweet smelling flowers: and A. muschata the Shah-Pasand of India and Sweet Sultan of England. These species have also been allotted to the genera Serratula; Athanasia: Centaurea and Chryseis.—*Voigt, p.* 424.

AMBERGRIS, *Eng. Fr.*

Ambergris ...	Eng. Fr.	Ambar	Ger.
Anbar	Ar.	Amber	Hind.
Payen anbhat ...	Burm.	S'ah-bui	Malay.
Mussumbra? ..	Cyngh.	Shah-bu	Pers.
Umber?	Duk.	Min-Umber ...	Tam.
Ambr	Ger.		

This opaque solid substance is of a bright gray colour generally found in the intestines or stomach of the *Physeter macrocephalus*, the blunt headed cacholot or spermaceti whale, though every species of cacholot is subject to yield it. It occurs in lumps from three to twelve inches thick mixed with vegetable and animal remains. It is softened by heat, has a powerful smell, which to some persons is very disagreeable. Indeed when first taken from the intestines its fetid smell is disgusting. It is often found floating on the ocean south of Asia and the countries it surrounds export it largely to China where, also, a spurious substance is often sold. Some sorts met with in Japan resemble coarse bitumen, or asphalte, or black naphta dried, consequently more or less black and heavy, and all these differ in consistence. Other sorts are whiter in various degrees and some sorts are exceedingly light, and not unlike a mushroom, which induced Scaliger to concur with Serapion, that it might well be a sort of a Fungus marinus, or sea-mushroom. Ambergris, when fresh from the sea, is soft, and nearly resembles cow-dung and emits a burnt odour. Black shining shells, and fragments of other submarine substances, are often found in it. Garcias-ab-Orta tells *(A. H. l. i. c. i.)* of very large pieces, but when Thunberg was in Japan, a very good piece of a fine greyish ambergris was found upon the coasts of Kijnokuni which weighed upwards of an hundred cattis, Japanese, that is, 130 lbs. Dutch weight, and being by much too large to be purchased by one person, it was divided into four parts, in form of a cross and one of the four parts was tendered to him. In 1693, after he had left Japan, a tortoise shaped piece weighing lbs. 185 Dutch, was sold by the King of Tidori to the Dutch East India Company, for eleven thousand rixdollars, (or upwards of 2000l. Sterling.) It was sent to Amsterdam the year after, and was kept in the Company's Museum. It was of a greyish colour, and of a very good sort. It was bought on condition that if it should be discovered to have been in any ways adulterated, the money should be restored. The learned Dr. Valentine, Profsesor at Gissen, figured it in his Museum Museorum, Lib. 3. c. 28 as did alsoRumph in his Amboinsche Raritertkammer, T. LIII and LIV from whom, it seems, Valentine took it. The same author gave an accurate description of it, p. 267. Bingley, et seq. *Thunberg's History of Japan, Vol. II. p.* 48. *Tennants' Hindustan, Vol. I. p.* 148. *Low's Sarawak, p.* 90. *Tavernier's Travels, p.* 152.

AMBERGURH, a town in India in Long. 75° 53′ E. and Lat. 27° 0′ N.

AMBERWARRA, a town in India in Long. 79° 10′ E. and Lat. 22° 20′ N.

AMBI JOGHI, a town in India in Long. 76° 30′ E. and Lat. 18° 51′ N. It is generally called Mominabad, and is a military station of the Hyderabad Contingent.

AMBOGUDDY, a town in India in Long. 86° 48′ E. and Lat. 21° 11′ N.

AMBOOA, a town in India in Long. 88° 26′ E. and Lat. 23° 41′ N.

AMBOORA, a town in India in Long. 79° 38′ E. and Lat. 21° 6′ N.

AMEATIE, a town in India in Long. 81° 45′ E. and Lat. 26° 8′ N.

AMEDGUR, a town in India in Long. 78° 12′ E. and Lat. 28° 14′ N.

AMEERAH, a town in India in Long. 82° 2′ E. and Lat. 21° 30′ N.

AMERAVUTTY, a river that rises in Travancore and falls into the Cavery near Caroor.

AMEERGUNGE, a town in India in Long. 81° 43′ E. and Lat. 26° 47′ N.

AMEERGUR, a town in India of this name in Long. 71° 55′ E. and Lat. 30·25. Another in L. 76° 3′ E. and L. 30° 28′ N.

AMERAH, a town in India in Long. 80° 25′ E. and Lat. 21° 21′ N.

AMERAPOOR, a town in India in Long. 76° 32′ E. and Lat. 20° 28′ N.

AMERGUR, a town in India in Long. 81° 43′ E. and Lat. 22° 44′ N.

AMERKOTE, a town on the border of the desert of the Gharra. See Baber. Humayun.

AMERPOUR, a town in India in Long. 86° 11′ E. and Lat. 25° 9′ N. Another in L. 87° 11′ E. and L. 24° 24′ N.

AMGOW, a town in India in Long. 81° 52′ E. and Lat. 19° 32′ N.

AMINAGUR, a town in India in Long. 87° 0′ E. and Lat. 22° 45′ N.

AMIR-DHOB, HIND. A name of the Cynodon dactylon. Amongst the Rajputs, the father binds the root around the arm of a new born son.

AMIRPOOR, a town in India in Long. 80° 41′ E and Lat. 26° 41′ N.

AMIR Yahia, a native of Kasvin, hence his patronymic Kasvini, died there A D. 1552. He wrote the Lubbat-ul-tuarekh. See Kasvini.

AMJAR, a river near Mukndura in Kotah.

AMLAS, a town in India in Long. 80° 10′ E. and Lat. 23° 50′ N.

AMMAPURAM, a town in India in Long. 77° 50′ E. and Lat. 16° 57′ N.

AMMERSEE, a town in India in Long. 88° 0′ E. and Lat. 22° 5′ N.

AMMROLY, a town in India in Long. 79° 8′ E. and Lat. 12° 44′ N.

AMBER, LIQUID. Liquid Amber.

Nan-tu-yok ...	BURM.	Liquid-Ambar ...	E G.
Rasa-Malay ...	MALAY.	Mia-Sailah.	ARAB.

A resinous fluid, obtained from trees that grow in N. America, Mexico, the Levant, in the Tenasserim Provinces, and Java, and used to mix with Balsam of Peru. The bark of Liquidamber altingia is bitter, hot and aromatic, and when wounded affords this balsam: a similar substance is obtained from

L. orientale of the Levant islands; and L. styraciflua of Mexico.—*Mason's Tenasserim. O'Shaughnessy, p.* 255-610-611. See Liquidamber altingia; orientale; styraciflua.

AMBHA, a goddess worshipped by the Kathis. See Rajpoot in Cyc. of Ind. Supp. ii.

AMBHASTA. Sans. A man born of a brahman father and vaisya mother, by profession a physician.—*Wilson.*

AMBATTAN. Tam. அம்பட்டன் Barber.

AMBICA, a deity of the hindu mythology.

AMBISACES, king of the Indian mountaineers, who sent ambassadors with presents to Alexander, on his crossing over to Taxilas. Rennell supposes his tribe to have been the ancestors of the Ghikars.—*Cyc. of Ind. Sup. ii. Kabul, p.* 434 *Khetri.*

AMBITTEYO the barber race of Uvah in Ceylon, who are regarded as more vile than the Rodiya.—*Tennant's Ceylon.*

AMBLAU. In the Moluccas, an island near the S. E. extreme of Buro, from which it is separated by a strait 6 miles wide, which is clear of danger, but rarely used. Lat. 3° 52′ S. Long. 127° 10′ E. There is a small government establishment on the north side of the island.—*Journ. Ind. Arch. Dumont D'Urville.*

AMBLYRHYNCHUS CRISTATUS, a sea lizard of the Galapagos from 3 to 4 feet long with a crest on its head, which is short and obtusely truncated, and broader than long. The mouth can be opened to a very small extent. It is common on all the islands of that archipelago, on rocky sea beaches, and is never found ten yards in shore. It is a hideous looking creature of a dirty black colour, stupid and sluggish in its movements.

AMBOLON, an island fronting the Mindoro Strait.—*Horsburgh.*

AMBONG, in Borneo a town in Lat. 6° 18′ 26″ N. Long. 116° 15′ 33″ E. (Sir E. Belcher) has a snug harbour on the coast of Borneo, which was examined by Sir E. Belcher, of H. M. S. Samarang, a few years ago. The town consists of a few huts inhabited by Malays, dependents of the Sultan of Borneo or his Pangerans. The famous mountain Kina Balu lies in an E. S. E. diraction from the head of the harbour, distant 27 miles, and adds much to the beauty of the neighbouring scenery. The trade is inconsiderable, but is likely to increase, The "Orang Dusun" or aborigines at this port of Borneo reside close to the coast. Bullocks of a good breed, and bees wax are obtainable, but water is scarce in the dry season of September to November.—*Journal of the Ind. Arch. Vol.* IV. *No.* 5 *and* VI. *May, June,* 1850.

AMBOYNA WOOD or LINGOA WOOD. A fragrant and very beautiful wood of various colours, used in cabinet work in England. The several varieties are probably all furnished by the same tree, which is supposed to be the Pterospermum Indicum, but this remains to be ascertained. It is beautifully mottled and curled, of various tints from light-red to dark-yellow, and is always in small lumps, evidently excrescences or burrs cut from trees. The several varieties of this wood are principally used for inlaying and by the makers of ornamental snuff boxes. It is brought from Ceram and Amboyna, and at the great Exhibition of 1851, it was sent from Singapore. See Lingoa wood; Kyaboca: Pterospermum Indicum.—*Archer, Faulkner, Lond. Ex. Juries' Reports.*

AMBOORESA. Tam. and Tel. Woman's coloured cotton cloths. See Cloths.

AMBOYNA, a high island of the Moluccas in the Eastern Archipelago, 33 to 36 miles long and the largest of the group. In this island in the year 1622-3, the Dutch disgraced themselves by the dark deed, known in English history under the name of "The Massacre of Amboyna" On that occasion they put eighteen Englishmen to the rack, and afterwards beheaded nine of them. One Portuguese and nine Japanese were put to death at the same time, as accomplices with the English. Amboyna was captured 16th February 1796. The Amboynese are middle sized, well made and better suited for military duties than the other Moluccan races. They are good-tempered, though impetuous; quarrelsome but easily ppeased, and generally very sober. Capital crimes are rare but occasional thefts occur. The island, like the other Spice Islands, is volcanic and with Banda, Ternate, Tidore, forms a sub-government of Java.—*Hogendorp, Coup d'œil sur Java quoted in John's Indian Archipelago. Crawfurd's Malay Grammar and Dictionary, Vol. I. p.* 131,32,33. *Horsburgh. MacFarlane, Geo. and His. of Japan, p.* 44. See India p. 357. in Cyc. of Ind. Supp. ii. Java. Kaya Boka; Melaleuca Cajaputi, Pulo Gasses. Pulo pisang.

AMBUJ. Hind. The lotus: Nelumbium speciosum.—*Willd.*

AMBUL-BEL. Beng. Pythomium bulbiferum.

AMBUPRASA-DANA. Singh. Water nut, for purifying water.

AMBUR in Lat. 12° 48, N. and Long. 78° 43 E. A town in the Carnatic, on the right bank of the Palar river, elevated above the sea, 1,053 ft. Schl.

AMBUR BATTI. Hind. A perfumed pastille, used in India, made of frankincense.

AMBUSI.

Ambusi...	..Duk. Hind.	Ambusi	Hind.
	Mahr.	Kucherian... ...	,,
Dried Mangoes...	Eng.	Manga-vattal ...	Tam.
Amurya... ..	Guz.	Mamidi varagu...	Tel.

Green mangoes sliced lengthways, salted and sun-dried and used in curries. Made everywhere, but that of Goa most prized.—*Faulkner.*

AMBUT. Duk. Embelia pectandra, also Spondias acuminata.

AMBYA PATA. Hind. Beng. Hibiscus cannabinus.

AMDHUKA. Beng. Hind. Vitis Indica.—*Linn.*

AMDA. Hind. Spondias mangifera.

AMDOAN. A Tibetan nomade race, who dwell in tents of linen, hexagonal and without frames.—*Latham.*

AMENDO. Port. Amygdalus communis.

AMERI. Maleal. അമരി Indigofera tinctoria.—*Linn.*

AMERICA, seems to have been peopled from Phœnicia, Asia, Africa and Iceland. There are physiological resemblances amongst the tribes, but differences in language, physiognomy, and modes of existence; the Abbe Domenech supposes their origin to have been from Scythians, Hebrews, Tartars, Scandinavians and Welsh. M. de Guignes in Recherches sur les navigations des Chinois, du Cote de' l'Amerique states that under the name Fu-Sang, America is accurately described in a Chinese work of the 5th century as a land in the far East. Mr. Logan, in the Journal of the Indian Archipelago mentions that the prevailing types of physical structure amongst the Chinese, have relation to the Mongolian and Tibetan and American forms, and that the American heads in plates 30—1, 5, 6 and 7 of Prichard's Natural History of Man are Chinese. —*Abbe Domenech*; *Prichard.* See Fusang. Jour. Ind. Arch. Dec. 1852, p. 663.

AMERICAN ALOE. Eng. Agave Americana.

AMERICAN or BELLEISLE CRESS. See Cress.

AMERICAN COLOMBO. Eng. Roots of Frasera Carolinensis and F. Walteri, fraudulently substituted for Cocculus palmatus.

AMERICAN SUMACH. Eng. Cæsalpinia coriaria.

AME-SA. Burm. Anona squamosa.

AMETASTINE. Vegetable Parchment.

AMETHYST. Eng.

Martis...	Ar.	Amethystus... ...	Lat,
Amethyst... ...	Eng.	Martas... ...	Malay.
Amethyste... ...	Fr.	Sang-i-Sulimani .	Pers.
Amethyst...	Ger.	Ametisto... ...	Port.
αμεθυδτος	Gr.	Skuandi... ...	Singh.
Sang-i-Sulimani ...	Hind.	Ametisto...	Sp.
Amatista...	It.	Sugandi Kallu ..	Tam

The Amethyst is mentioned in Ex. xxviii. 19, and xxxix, 12, but under this term two different minerals are known, viz. occidental or the common amethyst, one of the inferior gems a quartzoze mineral, found in amygdaloid trap rocks in all countries, but in vast quantities amongst the volcanic rocks of the Dekhan: some beautiful specimens of amethyst crystals occur in dykes of quartz near Bowenpilly at Secunderabad. Its colour is of every shade of purple violet; some of these are valued, for it is almost the only stone that can be worn with mournings. When the colour of a specimen has to be equalized, it is placed in a mixture of sand and iron filings and exposed to a moderate heat. The Oriental Amethyst is also of a purple colour but is an extremely rare gem and belongs to the corundums. Its colour can be destroyed by heat and its purity then resembles that of the diamond.

AMFUK. A kind of cloth.—*Simmonds.*

AMGOOLEE. Hind. Syn. of Elæagnus conferta.

AMHARA, one of the Semitic races, in Africa. Their language, the Amharic, as also the Hebrew and Syriac, is derived from the Western Aramaic. See Iran: also Semitic races.

AMHERST, a small town and pilot station in a peninsula on the left bank at the mouth of the Moulmein river, in L. 16·4½ N. and L. 97·32 E. The inhabitants are 5484, and the people of the district are the Talieng or Mon. Amherst is built on tertiary strata, overlying transition limestone. In the roads, the greatest rise and fall occurs in 2 days after full and change is 21 to 23 feet. The velocity of tide at springs is 6½ knots per hour. It was proposed to be formed into a sanatarium for European soldiers of Burmah, but the ailments there are of a kind needing a cool or a dry climate. A dangerous reef of rocks runs across the mouth of the Moulmein river, from Amherst light-house. See Mon. Talien.

AMHERSTIA NOBILIS.—*Wall.*

This is the finest indigenous flowering tree in Chin-India. Its very large scarlet flowers, are variegated with white and yellow. It is of low stature, with slender pendulous branches and large pea blossom shaped flowers of brilliant red and yellow, which hang down in tassels more than a yard long. It was discovered by Dr. Wallich on the Salwen near Trockla, and named by him after Lady Amherst, the Noble Amherstia. There is a fine tree at the door of the Judicial Commissioner's house on Moulmein Hill. It has been introduced into England where every tree is said to be worth fifty pounds.

> "Nor all the rich flowers
> Of Albion's bowers
> Can vie with its purpling shade."

It flowers in March.—*Mason. Voigt.*

AMIANTHUS. Syn. of Asbestus.

AMIDAM. Ger. Starch.

AMIDON. Fr. and Sp. Starch.

AMIR. Ar: Hind. Pers: a noble: a title of nobility equivalent in some Asiatic countries to King as in the case of Amir Dost Mahomed Khan, king of Kabul. Also, an official designation as Amir-ul-Bahr Admiral or in some places, harbour master; Amir-us-Sooq chief of the markets, equivalent to the Indian Kotwal. Amirzadeh literally "born of a chief, or prince." This word reappears abbreviated as "Mirza," which is always suffixed to the name in designating a prince of the blood as Abbas Mirza, who was the king of Persia's son, but is a prefix when honorific, like the English Mr. as Mirza Abdul Baki Khan.

AMIRANTE ISLANDS, the south-western group of the Seychelles, consisting of several detached small islands, coral reefs and banks. —*Horsburgh.*

AMIR-UL-MOMANIN. Literally Prince of the faithful, is a title assumed by several Arabian princes, in addition to that of Imam. See Imâm. Fraser's Journey in Khorasan.

AMIR UZUN DELEMI, in the tenth century constructed the Band-amir over the Araxes, and from whence the river Kum Firoz, after its junction with the Murghab, derived its name. See *Bendameer.*

AMJURAH. See Sanatoria.

AMLOUKA. Beng. Vitis Indica.

AMKUDU అంకుడు. Wrightea tinctoria, R. Br. Nerium tinct. R. ii. 4.

AM-KULANG. Tam. Physalis somnifera var. P. flexuosa, Nees.

AML. Ar. Per. Hind. An act, a reign: a rule: carrying into effect, hence Amil and Amildar, a revenue officer, Amla. Pl.

AMLA, also **AMLAKI,** Sans. **AMLEH.** Pers. also **ANOLA,** Beng. Guz. Hind. Sans. Phyllanthus emblica or Emblica officinalis. Gært the Emblic or shrubby Myrobalan.

AMLAJ. Arab. أملج Phyllanthus emblica.

AMLA VETASAMU, S. అమ్లవేతసము. Calamus fasciculatus, R? This Sans. compound signifies "sour-cane"—hence it is applicable to any species of Calamus yielding an acid vegetable or fruit. C. fascularis, is the equivalent of Sahasravedhi.—It might refer to *Zalacca edulis*—but this is a Malay—not an Indian plant.—Br. 68.

AMLEEATH PAT. Beng. a species of Corchorus.

AMLI OR IMLI. Hind. Tamarind.

AMLIKA TINTILI. Sans. Tamarindus Indica.

AMLAH. Pers. آمله Phyllanthus emblica.

AMLTAS. Duk. Hind. املتاس Cassia fistula.

AMLUKI, Beng Shrubby Myrobalan. Emblica officinalis.

AMLUKI. Beng. Acacia stipulata? ?

AMMANI-AMMA. The hindu term for the image of the virgin. See Hindu.

AMMANNIA VESICATORIA.—*Roxb.*

Bān Mărăch...	.. Beng.	Dad Mari... ...	Hind.
Blistering Ammannia ...	Eng.	Agni Vendrapaku..	Tel.

An annual found in Bengal and the Indian peninsula in wet land during the rains, 6 to 36 inches high. It has a strong smell like muriatic acid; leaves exceedingly acrid, employed by the natives as blisters in rheumatism; Dr. O'Shaughnessy tried them in eight cases. The bruised leaves had been removed from all after half an hour; blisters were not produced in less than 12 hours in any, and in three individuals not for 24 hours, and the pain occasioned was agonizing until the blister rose. These leaves cause more pain than cantharides, and are far inferior to the plumbago (lal chitra) in celerity and certainty of action. The Telugu name indeed, means fire leaf. Wight also gives figures of A. pentandra and A. rotundifolia, and Voigt. A. Indica and A. multiflora.—*O'Shaughnessy, page* 331, *Voigt.* 130. *Roxb.* I. 427.

AMMAN, in the peninsula of India, an idol, worshipped in every village, and identical with Amma and Ammani Amma. It is one of the many village deities of which neither the Puranas nor Vedas make any mention. Every hamlet has its own, always supposed to be a goddess, and it is usually a stone turned black by oil offerings and time. The word is understood by the villagers to mean mother and does not seem to have any connection with the Semitic word Am'n and Ammon or Ammon-Ra of the Egyptians, their Sem-god and Ruler-god, who was represented in the human figure. The villagers style their deity by many affixed names, Ankal-Amman, Mang-Kali-Amma. Poni Amma or golden-mother; Kani-Amma, Mutial-Amma or pearl mother, Paleri Amma or great goddess and other local affixed names, the meanings of which are not apparent. The Mahratta villagers have the same female deity whom they name Ai, or mother. The villagers offer sacrifices and those of sheep, goats and fowls are made, also cocoanuts and fruits, frankincense, camphor and ghi are burned, palm-wine, dhal (cytisus cajan.) There seems no doubt that it is the remnant of a very ancient worship, the origin of which is now unknown. The villagers believe that these goddesses protect them from sicknesses and from losses, or mitigate these. A pujali or pujari, a worshipping priest of the Sudra caste is appointed for its daily worship. He anoints it with ashes on its head, or rather on the top of the stone, for it is no image, but a mere shapeless stone. In a small pot he cooks the rice, which he collects from the hamlet people in rotation, presents it to the idol, and then takes it to his own house. He breaks a cocoanut in front of the idol, and offers it also, but the one-half he keeps to himself and gives the other to the family from whom he obtained the fruit. The village offerings are in fulfilment of vows, or offerings of fowls and sheep, if the goddess will grant their desires, and once a year the villagers collect money by subscriptions, and celebrate a festival in honour of their deity, during which sheep and fowls are largely sacrificed. The Sudra hindus and the entire servile tribes in the south of India, have the fullest faith in their respective village goddesses. When they or their children are overtaken by sickness, they seek the idol and consult the pujari, who sings songs, affects to hear the Amman's voice, and then announces to the worshipper the offering that must be presented. If cholera break out it is not unusual for some neighbouring village deity suddenly to rise into great importance and the sacrificial rite is then almost unceasingly performed. The hindus have even personified that pestilence into a goddess whom they have named Maha-Kali and believe that if they neglect her worship she destroys them by the disease. Indeed gods are still in process of establishment and small-pox and cholera, have thus been personified, Maha-Kali of Ujjain being the goddess of cholera and Mari-Amman of the Tamils a small-pox deity. In South India, this deity is invariably female, Ai, Em, Amma, Ma, Mamma, being the natural term amongst all races, for mother, as in the 'Em of the Hebrews, the Ma of the Egyptians. The most high god, Eliun, or Helyun, the creator of man, seems early to have been forgotten, and to have come to be worshipped under various names, all meaning Lord, and then a wife was given to him also known under various names, Baaltis is, i. e. mistress queen; Hastoreth, i. e. in the Greek form Astarte, who as Baltes was worshipped at Byblus with her husband Adonis, But the secret worship of the mother of God, also called Amma, was especially celebrated in the shrine of Aphaka at Byblus, near the river of Adonis. *The Amman of the* southern hindus may therefore be a cosmogonic term, indicative of the great Creator, the Most High God's Will. See. Cyc. of India, Amman; Ammavaru: Hindoo: Sacrifice.—*Bunsen's Egypt*, I. *V*, *also Sharpe's Egypt*, I. 222. See Hindu.

AMMON, The Egyptian deity originally worshipped in the human figure, at Thebes in upper Egypt, and at Thebes, latterly with the head of a ram. He was displaced afterwards in favour of another idol, in the reign of Tuthmosis III. He is supposed to be the Zeus of the Greeks, and was styled Amn, or Ammon. Amn-ra or Ammonra. He originally corresponded with the Sun-god, was the highest of the first order of gods, and was the ruler deity. He was styled the son of Isis and his son was Khunsu, is the hidden god of the Thebaid and the Zeus of the Greeks. The origin of this worship is supposed to have been Semitic. It may have been identical with the Amman of the races in peninsular India, and amongst northern people directed to the warm sun and to the earth, in the sunny south. Bunsen. i, v. See Amman. Ammavaru; Hindoo; Sacrifice.—*Sharpe's Hist. of Egypt, Vol. I. p.* 222.

AMMON, an oasis in Egypt on which stood the temple of Amun-Ra, whose figure was that of a man having the head and horns of a ram.—*Sharpe's History of Egypt. Vol. I. p.* 222.

AMMAVARU, a cruel sacrificial rite, practised amongst the hindu Sudras and low-caste races of the southern part of Peninsular India, where on the occasions of a great cholera epidemic or other calamity, a bullock is impaled alive to appease the angry goddess Devi. See Hindoo: Sacrifice.

AMMONIA. Eng. Lat.

Liquid Ammonia...	Eng.	Ammoniaque? ...	Fr.
Volatile Alkali ...	„	Ammoniak? ...	Ger.
Spirits of Hartshorn.	„	Sal-volatile... ...	Lat.

This is a limpid colourless fluid, exceedingly volatile, has a pungent smell and a caustic taste, and in medicine is a useful stimulant. The name of this substance is derived from the oasis of Ammon in Upper Egypt where the muriate was gathered as the product of animal remains. It is now obtained in Europe from coal in the process of gas-making and converted into several compounds by other processes.—*Tomlinson.*

AMMONIA, CARBONATE of.

Smelling Salts ...	Eng.	Carbonate d'Ammoniaque... ...	Fr.

This, now wholly an imported article, was known to the hindus who obtained it by mixing one part of sal ammoniac with two parts of chalk. It is now obtained by a subsequent process after the manufacture of coal gas.

AMMONIA, Hydrochlorate of.

Armina ... ... AR.
Dza-wet-tha ... BURM.
Muriate of Ammonia. ENG.
Sal Ammoniac ... „
Sohaga also Noshādr. ... DUK.
Hydrochlorate d'Ammoniac. ... FR.
Salmiak ... ... GER.
Noshadar... ... HIND.
Ammoniæ Murias. LAT.
„ Hydrochloras. „
Sadăr... ... MALAY.
Sohaga also Noshadar Arminah... PERS.
Sohaga and also Nuosadar. ... SANS.
Navasaram. ... TAM.
„ ... TEL.

This is met with in great abundance in every bazaar of India. It is a volcanic product, but Dr. Royle obtained it from brick kilns in India. Its name is derived, from the oasis of Ammon where it was early known, for it is the Nashādar of Avicenna and Serapion. Indeed, it was first obtained in Egypt near the temple of Jupiter Ammon, whence its name, by sublimation from the soot of camel's dung. The Egyptian process has been described both by Pococke and Niebuhr. Pococke mentions that the dung of pigeons, cows, camels and other animals, is mixed with chopped straw and made into cakes as firewood; it is now manufactured largely in Europe, by combining hydrochloric acid, either directly, or indirectly, with ammonia obtained from the decomposition of animal matter. In France, by the distillation of bones, in iron retorts, but in Britain, from the ammoniacal salts contained in the liquor resulting from the distillation of coal in the gas works. During its solution in water, the temparature falls several degrees; it is used by tinmen to clean the surface of their metals and to facilitate the soldering of iron and copper and prevent the oxydation of the copper; it is also sometimes employed by dyers, to brighten their colours. Dissolved in nitric acid, it forms the *aqua regia* of commerce, used for dissolving gold, instead of nitro-hydrochloric acid. It is also used in small quantities in steam boilers, to prevent the formation of calcareous deposits. It is used for adulterating tobacco.—*Tomlinson. Ainslie. Beng. Pharma. p.* 259. *Bingley I.* 138. *Royle. Niebuhr's Travels, Vol. I. p.* 90. *Peacock's Description of the East, Vol. I. p.* 259.

AMMONIAC, GUM.

Feshuk? Ushok? AR.
Ushek? ... . „
Gum Ammoniac... ENG.
Gomme Ammoniaque FR.
Ammonik ... ... GER.
Astrack... ... ... GUZ.
Samagh.Hamama? HIND.
Astrak? ... ...HIND.
Gomma Ammoniaco. IT.
Ammoniacum... .. LAT.
Sămăgh b'us Shirin? also Oshak ... PERS.
Goma Ammoniaco...SP.

The Dorema ammoniacum of Don (Linn Trans, XVI. 601), yields this product from its stem and fruits. According to Lindley the plant grows in Persia on the plains of Yezde Kaust, and Kumisha in the province of Irak, and near the town of Jezud Khast, in very dry plains, and gravelly soil exposed to the sun, and the gum resin is imported into India viâ Bombay from the Persian Gulf, and re-exported to different countries. It is obtained by incisions in the plant, and occurs in voluminous masses of yellowish colour, enclosing white almond-like tears. It is principally employed as an expectorant in the chronic catarrhs and asthmas of old persons. It is also applied externally as a warm and stimulating plaster.—*O'Shaughnessy*, 364.—*Faulkner, page* 365.

AMMONITE, a fossil genus of molluscs, which seem to have existed extensively in all parts of the world during the period that the chalk formations were being deposited, and the genera have been widely diffused. They occur in great abundance and of great size, some three feet across, in the supra cretaceous strata between Trichinopoly and Pondicherry, and were described by Mr. Brooke Cunliffe, Captain Newbold and Mr. Kayes. Dr. Gerard found in the Himalaya, at an elevation of 16,000 feet, what he described as A. Walcottii and A. Communis, which occur in the Lias at Lyme Regis, but in this he was mistaken. Most of those discovered have been named. Amongst them are Amm. Madrasianus: Kandi: Kalika Æmilianus: Bhima: Bhawani Planulatus, Denisonianus. Beudanti; Vaju; peramplus: Durga, very fine: Cala; revelatus: garuda. The Hindu names so frequently occurring are in consequence of the saiva hindus worshipping several species of ammonites under the name of Saligrama. See Saligramma.

AMMONITES, the children of Ben-Ammi, the son of Lot, by his younger daughter. They were dispossessed by the Hebrews, and afterwards for 18 years strove to reconquer their lands, greatly oppressing all the children of Israel who dwelt beyond the Jordan river. They were ultimately driven back by Jephthah, the Gileadite. See Judges x. 8, 9; xi. i, 4 & 27.

AMNA. BENG. Spondias mangifera.

AMODI. IT. Starch.

AMOGHVERSHA, King of Tonda Mundalam, in the South of India, in whose reign, in the 9th or 10th centuries, the Jain faith was introduced.

AMOK, also **AMUCK**, MALAY; a furious reckless onset, the muck or the "run-a-muck" of the English.

AMOMA MORINGA. LOUR. Moringa pterygosperma. Gærtn.

AMOMUM, a genus of plants of the natural order Zingiberaceæ, of which Voigt enumerates nine species as having been grown in the vicinity of Calcutta; viz., aculeatum, angustifolium, aromaticum, cardamomum, cornostrachyum, dealbatum, maximum, sericeum, and subulatum. *The Paradise grains, or*

Malaguetta pepper the A. grana paradisi, is not of India, but of the Guinea Coast, as is also the A. grandiflora.

AMOMUM ANGUSTIFOLIUM. *Roxb.* A native of Madagascar, cultivated in the Mauritius and India, the fruit is the greater cardamoms of the old writers. Its flowers are pretty lar ra blood-red, yellow, spicy and fragrant, a image, ry part of the plant when bruised mall maed diffuses a strong pleasant aromati smell.—*O'Shaughnessy, p.* 650. *Roxb. I.* 39. *Voigt.* 557.

AMOMUM ACULEATUM. *Roxb.* of the Malay Archipelago, with crimson spots on deep orange flowers.—*Roxb. I.* 40. *Voigt.* 567.

AMOMUM AROMATICUM. *Roxb.* Morung-ilachi. Hind, has middle sized flowers with lip tinged with red down the middle It is a native of Chittagong and the valleys of the Eastern frontiers of Bengal, the fruit has similar properties to those of the true cardamoms, for which they are often sold to the druggists of India. *O'Shaug. p.* 650. *Voigt.* 568.

AMOMUM CARDAMOMUM. *Linn.*

Cardamomum mumus. *Rumph.*

Ben	Burm.	Yelarsı... ...	Tam.
Kapa laga ..	Malay.	Yelakulu... ...	Tel.
Elachi ...	Duk. Hind.		

This belongs to Sumatra, the Moluccas, and is cultivated in India. the Atteran forest middle sized pellucid flowers, with It has now middle line on the lip. Its seeds are agreeably aromatic and are used by the Malays for the true Malabar cardamoms, viz. Elettaria cardamomum.—*Ainslie Mat. Med. p.* 270. *Roxb.* 1. 37. *O'Shaughnessy,* 655. *Voigt.* 567.

AMOMUM CORYNOSTACHYUM. *Wall.* A plant of the teak forests of Martaban, with large white flowers.—*Voigt.* 568.

AMOMUM CARDAMOMUM, Wood. Syn. of Elettaria cardamomum. *Mat.*

AMOMUM CURCUMA. Gmel. Syn. of Curcuma longa.

AMOMUM DEALBATUM, is *the Burra elachi* of Silhet according to O'Shaughnessy *p.* 650, but Roxburgh says that the seeds are insipid. It grows in Chittagong and Silhet. —*Roxb. I.* 43. *O'Sh.* 650. *Voigt.* 567.

AMOMUM GALANGA. Lour. Syn. of Alpinia galanga.

AMOMUM HIRSUTUM. Lam. Syn. of Costus speciosus.

AMOMUM MAXIMUM, according to Pereira, yields the great winged cardamoms, referred by Lindley to Elettaria. It is a plant of the Malay Islands. Its seeds are warm and pungent, with an aromatic taste, not unlike that of Cardamoms, but less grateful.—*Roxb.* I. 43. *O'Sh.* 650. *Voigt.* 567.

AMOMUM NUTAR. Under this name, Dr. Riddell describes a flowering plant throwing out long branches with drooping panicles of wax-like flowers, a native of some of the Eastern Islands, which has never been known to give seed. The only flower approaching near it in beauty, is one of the parasites blossoming in May at Mahabuleshwar.—*Riddell.*

AMOMUM RACEMOSUM *Lam.* Syn. of Elettaria cardamomum, Maton.

AMOMUM REPENS. *Roxb. Willde.* Syn. of Elettaria cardamomum, Maton.

AMOMUM SERICEUM. *Roxb.* of the Khassya mountains, has large white flowers, lip yellow with pink veins in its centre. *Voigt.* 568.

AMOMUM SUBULATUM. *Roxb.* Bengali ilachi. Beng. a large flowered species of the Khassia Hills.—*Roxb. I.* 44.

AMOMUM ZEDOARIA. Syn. of Curcuma zedoaria.—*Roxb.*

AMOMUM ZERUMBET. Koen. Syn. of Curcuma zedoaria.—*Roxb.*

AMOMUM ZINGIBER. Lin. Syn. of Zingiber officinale, Roscoe.

AMOOD, a town in India in Long. 77° 53' E. and Lat. 24° 39' N.

[illegible] : Tam. அமுக்குறம் root of Physalis somnifera.

AMOOR, River. See Amur, also Kalkas.

AMOQUID. Bicol. Musa textilis.

AMORITES, a mountain race who joined with the Hittites to oppose the Hebrews, but were driven by Joshua from their positions near Hebron, and their kingdom and country to the South of Jabbok captured.

AMOOS. Arab. عمونس Ptychotis ajowain; Ajwain seed.

AMOORA CUCULLATA. *Roxb.*

Andersonia cucullata.—*Roxb.*

Amoora.—*Beng.*

A tree of the Sunderbans with small yellow flowers.—*Voigt.*

AMOORA ROHITUKA, *W. & A.*

Andersonia-rohituka. *Roxb.*
Meleacea Wightiana. *Wall.*
Sphaerosacme rohituka. *Wall.*

Tikta-raj.	Beng.	Hingul gass. ...	Singh.
Chayau-ka-yoe.	Burm.	Shem maram ...	Tam.
Hurrin-hara. ...	Hind.	Chaw-a-manu ...	Tel.
Harrin-hara ...	,,	Rohitaka.. ...	,,
Chem-mara...	Maleal.		

A native of the peninsula of India, Travancore, the Central provinces of Ceylon up to 3,000 feet, Bengal, Moulmain, and, though scarce, found in the forests of Tounghoo. The wood is white coloured and adapted to every purpose of house building. The seeds yield an oil, which is used for various economic purposes.—*Roxb. II.* 213. *Voigt,* 134. *McClelland. Cal. Cat. Ex.* 1862. *Useful Plants. Thwaites En. Pl. Genl. I.* 60.

AMOORA POLYSTACHIA, *W. & A.*

Syn.

Aglaia polystachia. *Wall.*

A tree of the Khassya Hills, with pale, yellowish fragrant flowers. *Voigt.*

AMORPHOPHALLUS, a genus of plants belonging to the Araceæ, of which Wight, in Icones, mentions bulbifer, amorphophallus, margaritifer and sylvaticus.

AMORPHOPHALLUS CAMPANULATUS. *Bl.*

Syn.

Arum campanulatum, *Roxb. iii.* 509.
A. Rumphii, *Gaudich.*
A. Zeylanicum, *Commel.*
Candarum, *Schott, Roxburghii.*

Wa	BURM.	Koruna... ...	MALEAL?
Telinga Potato...	ENG.	Kanda... ...	SANS?
Ol...	HIND.	Karanèkalangu.	TAM,
Soorun	MAHR?	Manchi kanda gadda... ...	TEL.
Karuna... ...	MALEAL.		

Much cultivated in India, Ceylon, Burmah and the Moluccas. It needs a very rich soil, and repeatedly ploughed. Its roots are used like yams, are nutritious, and wholesome, and sell in Bengal for a rupee a maund. The small tuberosities on the roots are set before the rains in very rich soil, after repeated ploughings, and are dug up after a year, when the roots weigh from lbs. 4 to 8, in Kaina Zillah, a bigah yielded 100 to 250 maunds. *Jaffrey. Voigt.* 686. See Vegetables of S. India, Amorphophallus bulbifer; margaritifer.

AMOUAH, a town in India in Long. 84° 20′ E. and Lat.

AMOUNAH, a town in India in Long. 82° 38′ E. and Lat. 27° 20′ N.

AMOY, called by the fisherman Haenun, is an island on the S. E. of China about 22 miles in circumference. The town of Amoy is situated on the S. W. part of the island, opposite the small island of Ku-lung-su, which affords protection to the town, anchorage or inner harbour. On the western side of the island is that of Woo-seu-shan, also that of Woo-an. Amoy was taken 9th June 1842, and delivered over to the British, after the first Chinese war of 1841-2, and forms one of the consulates there, Shanghai, and Hong-Kong being others.—*Horsburgh.*

AMPHIBIA, a term from the Greek, applied to reptiles and quadruped animals which live either in the water or on land.

AMPHIDONAX, a genus of plants belonging to the Panicaceæ, of which A. amphidonax; Bengalensis; and bifaria are known. The species have been brought from the genera, Aira, Arundo and Donax.

AMPHIDONAX KARKA. *Lind.*

Syn.

Arundo karka. *Retz. Roxb. Lind.*
,, Roxburghii. *Kunth.*
Trichoon karka. *Roth.*
Calamagrostis karka. *Gmel.*

Nal, also Nul ...	BENG.	Kikkasa gaddi,	TEL.
Darma	,,	Puvvu-gutti gaddi ...	,,
Munia fibre. ...	SIND.		

This plant grows in Bengal and Sinde, and from its split stalks are made the common Durma mats of Bengal, used there as ships dunnage: the fibres also are made into ropes.—*Voigt.* 714. *Roxb.*

AMPHILOBIUM MUTISII, one of the Bignoniaceæ—a pretty climber with purple flowers, well adapted for trellis work in India. —*Riddell.*

AMPHION REHNAUDII, a Phyllosoma crustacean of the Indian ocean.

AMPHITRITE ISLANDS lie in two groups, in the northern part of the China Sea.—*Horsburgh.*

AMPULLARIA. A genus of molluscs with globular formed shells, many of which are found in the moist meadows, rivers and tanks of India. Their colours are usually tame.

AM-PULLUM. TAM. Mango.

AMPHILLA, the most miserable spot on the coast of Abyssinia. In regard to anchorage, facilities for landing, &c., it is not to be compared to Massowah; according to the admiralty charts it is very circumscribed and intricate.

AMQUTAS, a Greek Sovereign of the Paropamisidæ, who succeeded to the kingdom of Lysias after Antialcidas.

AMRA, a town in India in Long. 87° 20′ E. and Lat. 24° 31′ N.

AMRAPOOR, a town in India in Long. 77° 2′ E. and Lat. 14° 9′ N.

AMRAWUD, a town in India in Long. 78° 11′ E. and Lat. 22° 59′ N.

AMROOAH, a town in India in Long. 78° 25′ E. and Lat. 28° 26′ N.

AMROWNIA, a town in India in Long. 79° 42′ E. and Lat. 24° 39′ N.

AMRUN, a river near Nagond in Oonchera.

AMRA. BENG. HIND. SANS. TEL. Spondias mangifera, the hog-plum.

AMRAH SUN. BENG. Corchorus olitorius.

AM-RAI. HIND. A mango grove.

AMRAPUR. A town of India L. 20° 25′, L. 76° 28′, in the Hyderabad Assigned ed territories, S. W. of Akola is 1,674 feet above the sea.

AMRITA. Sansc. In Hindu mythology, the beverage of immortality drank by the gods. It is fabled to have been produced by churning the ocean, along with other precious gifts to man. Chitra-Ratha, describes, in song, how,

> " Whilom from the troubled main,
> The sov'reign elephant Airavan sprang :
> The breathing shell, that peals of conquest rang ;
> The patient cow ; whom none implores in vain ;
> The milkwhite steed ; the bow with deaf'ning clang ;
> The goddesses of beauty, wealth, and wine ;
> Flow'rs, that unfading shine ;
> Narayan's gem ; the moonlight's tender languish ;
> Blue venom, source of anguish ;
> The solemn leech, slow, moving o'er the strand,
> A vase of long-sought Amrit in his hand.—
> To soften human ills dread Siva drank
> The pois'nous food that stain'd his azure neck ;
> The rest, thy mansions deck,
> High Swerga, stor'd in many a blazing rank.

The word Amrita, means immortal, and is derived from the initial privative and m'rit 'death.' The word has been carried into the Teutonic and the Immurt'hal, or 'vale of immortality,' at Neufchatel, is as good Sanscrit as German. According to legend, the Amrita, was the occasion of the war between the Suras and Asuras, in which the gods took a part. This indicates the occurrence of the first solar eclipse on Indian record. Modern European commentators conjecture that it fell on the 25th October in the year 945 before Christ. *Sir W. Jones, Hymn to Indra, Vol. XIII,* 273. *Tod's Rajasthan, I.* 71, *Captain Edward Warren's Kala Sanhita. Coleman's Hindu Mythology.* See Kurma : Lakshmi, in Balfour's Cyc. of India, Supp. ii.

AMRITSAR, AMRITASAR or AMRITASURA : A Sikh town, founded by Ramdasu, near the Ravi, the name, in Pali, literally the "Lake of Ambrosia," is from the piece of water in the midst of which stands the chief temple of the Sikhs. It is their principal place of worship and chief commercial emporium of northern India. The town, is strongly built and fortified, but as the situation is not a commanding one, it could not long stand a siege with guns of a large calibre.—*Thomas' Prinsep's Antiquities, p.* 130. *McGregor's History of the Sikhs. Vol.* I. *p.* 19. See Panjab : Sikhs ; Shawl ; Goa.

AMRU, Beng. Mango, Mangifera indica.

AMRU, a son of Saba or Abid Shamsh, and a grandson of Joktan. He first imposed the tax or khiraj on Egypt. See Joktan.

AMRU (also AMRITA?) a tree alluded to in the mythic tales of Krishna and Radha, whose dalliance was in groves where "the Amrita tree, with blooming tresses is embraced by the gay creeper atimukta :" again "delightful are the flowers of the Amru trees on the mountain tops, while the murmuring bees pursue their voluptuous toil. *Coleman, p.* 39. See Krishna.

AMRUD. Beng. The common Pear, Pyrus communis.

AMRUL. Beng. Procumbent oxalis, Oxalis corniculata. *Linn.*

AMRUT. Sans. Psidium pyriferum, the guava.

AMRU BIN-LAIS, one of the Arab governors of Khorasan after the last of the khalifs, whilst the capitals were Merv, Nashapur, and Bokhara. In A. D. 900, A. H. 287, he was defeated by Ismael Bin Ahmed the Samani.

AMRUDDHA. Sansc. In the doctrines taught by Ramanuja Acharya, one of the forms of Indra's manifestations. See Sri Sampradaya.

AMSHUN ATY DINIAN. Diva. Sans. Senna.

AMTEE, a town in India in Long. 77° 19′ E and Lat. 19° 52′ N.

AMUNDPORE, a town in India in Long. 79° 20′ E and Lat. 28° 35′ N.

AMU, the river Oxus. See Amoo.

AMUDAPU CHETTU. ఆముదపుచెట్టు. Ricinus communis, *L.*

AMUL LAR KHANA, 'to eat opium together,' is the most inviolable pledge, amongst the Rajputs, and an agreement ratified by this ceremony is stronger than any adjuration. If a Rajpoot pay a visit, the first question is, *umul kya ?* 'have you had your opiate ?—*umul kao,*' take your opiate ! On a birth-day, when all the chiefs convene to congratulate their brother on another 'knot to his years,' the large cup is brought forth, a lump of opiate put therein, upon which water is poured, and by the aid of a stick a solution is made, to which each helps his neighbour, not with a glass, but with the hollow of his hand held to his mouth.—*Tod's Rajasthan, Vol. i. p.* 644.

AMULETS are worn by almost all eastern nations. They are especially prized by mahomedans, of whom both young and old wear them. They are usually put on the young to ward off disease and to guard from the evil eye, and consist of figures with numbers on pieces of paper, or Arabic words engraved on potstone or silver or gold and worn from the neck,—often extracts from the Koran. They are also put over the door porch or on the house wall. Amongst the Malays of Java, *Mustika* means amulet, and is always some very scarce or supernatural production, which being worn about the person they suppose acts as a talisman, and wards off evil. The *Mustika Kerbo* or Buffalo Amulet, is quite white, and round like marble, nearly an inch in diameter, and semi-transparent ; it is stated to be found at Panggal. The *Mustika Waringin,* a calcareous concretion, found at Ngadi Rejo. It is quite black and a little smaller than the Mustika Kerbo. Waringin is the name of a tree, the Ficus Benjamina, which always adorns the open plain in front of the houses of Javanese chiefs. —*Journal of the Indian Archipelago, No. vi.—xii. June—December* 1853, *p.* 274.

AMUL KUCHI, Beng. Cæsalpinia digynia.

AMULTAS. Beng. Duk. املتاس Cathartocarpus fistula.

AMUMILLA. Singh. Berrya ammonilla.

AMUR or AMOUR or AMOOR is the name given by the Russians to the river in Mantshuria, which the Mantshures call the Sagalin also Sàgalinoula or Black Dragon River of Mantchu Tartars. The Russians in 1842 under treaty, annexed great tracts of little peopled country on the banks of this river and have arranged them into provinces thus :—

	Sqr. Miles.	Natives.
The Amur Province..	164,000	5,200
Usuri, Sofyovsk, and Nikoloyvesk.......	179,000	9,800
Russian Sakalin...............	18,000	8,500
	361,000	23,500

The river rises in Lat 50° N. and Long. 110 ° E. by two sources, one in a sharp bend of the Davurian Mountains near the small fort of Doroninsk, the other lower down near Nishni-ul-khonsk. After a winding course to the N. E. it also receives a small feeder from the S. E. extremity, which has its rise near ke Baikal. The two streams uniting, run e east to Nerchinsk, where it has attained a lth of 600 yards and is very deep. Passing sterly from Nerchinsk, it bends to the north, d again assumes an easterly direction, and ming from the south meets the Argun, a large butary, at Baklanova. The Argun, 900 iles in length, itself a splendid stream, passes through the rich pasture land of Mongolia. The Amoor continuing its easterly course, and receiving many tributaries, passes Yacca. It then runs to the south-east, passing through deep mountain valleys, and gains its most southerly limit in Lat. 47 ° 48′ N. & Long. 137 ° E. From this point it ascends in a north-easterly direction, receiving from the south-west, the Songari, a river which drains a great part of Manchuria : many smaller tributaries increase its volume, including the Usuri from the south. It also receives the river Zia, near Seghalien-ula, as it approaches the mouth or outlet, which is situated in Lat. 53 N. and Long. 142 E. and is three miles wide. Here, the stream being obstructed by the opposite coast of Seghalien and the many sand banks which beset the gulf, divides into two lesser streams of great force, one of which pursues a southerly direction to the sea of Okhotsk, the other towards the gulph of Tartary. The length of this river, including its many windings, is computed at 2,800 miles. Its basin contains a surface of 900,000 square miles. It is navigable for large vessels, as far as Nerchinsk, a distance of 1,600 miles, but the mouth is obstructed by a great bar over which there is not more than two fathoms of water at high tide and by numerous sand banks, which are yearly increasing in number and extent. The banks are lined with forests: the land on its banks rich and fertile. The Tungusian races of the lower Amur are the Yeniseisk; Nerchinsk; Manyarg; Manchu and Orochi, all small tribes, eitheir nomades or subsisting by fishing. In 1842, the territory between the Jablonnoi mountains and the northern bank of the Amoor was ceded to Russia by the Chinese. At its mouth members of the Aino family are settled: and due north of Pekin is a Mongol tract which nearly separates the true Tungus part of Mantshuria : from this description it will be seen that the Amoor, is second only to the Mississippi. It flows from the centre of Northern Asia into the Pacific Ocean not far north of Japan. Much of the country along the Amoor is susceptible of farming and grazing. Steamers can ascend from the sea to Chetah, a distance of 2,600 miles, which opens up Siberia to the Pacific through the Amoor, presenting a new field for commerce, the ultimate limits of which can hardly be grasped by the most comprehensive mind. Mongolia, Manchuria, Northern China, all the Tartaries, Thibet, and Siberia, with a population of twenty to thirty millions, are approached by this river, and a new route to the Indies opened. Irkoutsk, the capital of Eastern Siberia, can be approached with only about three hundred miles of land carriage. The country of the Amoor is divided into two provinces, the first of which preserves its actual name of maritime province of Eastern Siberia, and the other takes the name of Province of the Amoor. The Okhotsk district is detached from the province of Yakoutsk and united to the maritime province, which comprises six districts. The administration of the maritime province remains on the same footing as before, with the exception of a few changes prescribed by a special order of the Russian emperor. The province of the Amoor consists of all the territories situated on the left bank of the Amoor from the confluent of the rivers Schilka and Argun, or from the limits of the Trans-Baikalian provinces and of Yakoutsk, descending the Amoor to the confluent of the river Oussouri and to the new confine of the maritime province. The town of Blagoveatchensk will be the capital of the province of the Amoor. —*Staunton's Narrative, p.* 15. *Latham's*

Nationalities of Europe I, 269. *Atkinson's Travels, Atkinson's Oriental and Western Siberia.*

AMURKALEE. BENG. Ardisia colorata.

AMURYA. GUZ Dried mangoes. See Ambusi.

AMWA, a town in India in Long. 81° 0′ E. and Lat. 24° 56′ N.

AMWARREE, a town in India in Long. 77° 40′ E. and Lat. 23° 30′ N.

AMYAH, a town in India in Long. 81° 12′ E. and Lat. 26° 19′ N.

AMYAYN, a town in India in Long. 94° 59′ E. and Lat. 22° 15′ N.

AMYGDALUS COMMUNIS. *Linn.*

The Fruit.

Louz(Sweet)	AR.	Amygdalæ dulces .	LAT.
,, ul muer (bitter)	,,	Louzan... ...	MALAY.
Kataping ..	BALI. JAV.	Badam-i-Farsi (Sweet)	PERS.
Badamsi? ...	BURM.	,, talq (bitter,	,,
Badam mitha.	DUK GUZ. HIND.	Amendo .	PORT.
,, Karwa.	MALAY. PERS.	Mandel	RUS.
Amandelin. ...	DUT	Inghurdi .	SANS
Almond .. .	ENG.	Walu-luway ...	SINGH
Amandes ...	FR	Almendra	SP
Mandeln	GER.	Parsi Vadam	TAM.
Badam-i-Farsi...	HIND.	Parsi badama ...	TEL
Mandorli	IT.		

The Almond tree is cultivated for its fruits, the common edible and bitter almonds in daily use, and for the oil expressed from it. Botanically, there is but one species though there are many varieties and sub-varieties, the most important of which are the sweet and the bitter almonds of commerce—the latter the "*Karwa badam*" of India. The sweet almond contains 24 per cent of albumen and 54 per cent. of fixed oil, the latter forming the principal product of the tree. *The bitter almond tree* fruit is smaller than that of the sweet almond, but in every other respect the structure and appearance of the trees and fruits seem to correspond The taste, composition, and properties are however totally different. It has been asserted, that the sweet and bitter fruits have been gathered from the same tree, and that culture will change the bitter to the sweet, as it has changed the sour crab to the sweet apple, and the bitter, half poisonous wild potato to its present state. Dr. O'Shaughnessy expresses his belief that no prussic acid has yet been traced in the sweet almond. The sweet and bitter kinds are imported into the northern parts of India from Ghoorbund, and into the southern parts from the Persian gulf.

The Oil,

Almond oil	ENG	Badam ka tel ...	HIND.
Bathama nuna ...	TEL.	Batham yeunai ...	TAM.

Is colourless, very slightly yellow, with difficulty congealed, taste sweet, smell light, agreeable and resembling that of the seeds. In all its properties and uses, it is nearly identical with olive oil. It is obtained for native use, in India, but does not form an article of export. The fruits are imported into England at from £2-10 to £6 the cwt and of the oil about 600 tons are imported.—*O'Shaughnessy, pages* 319-20. 222. *Hog.* 298. *Voigt.* 200. *Faulkner St. of Commerce. Bingley. Riddell. Riddell's Manual of Gardening p.* 97. *Cleghorn's Punjab Report.*

AMYGDALUS PERSICA. *Linn.*

Syn.

Persica vulgaris. *Mill.*

Khookh...	ARAB	Kalloo ...	PERS.
Peach tree	ENG.	Kardi aru... ...	,,
Shaft-Alu	PERS.	Moondla-aru ...	,,

A native of the Himalayas, abundant in Kashmir and the Hindu Kush, Persia, Taurus and Caucasus, also in Barbary whence it has spread into all the countries of the south of Europe. Several varieties are extensively cultivated in China and in several parts of India, as in Ahmednuggur, and Poonah in the Dekhan also in Mysore at Bangalore and all their neighbourhoods, twelve dozen of nectarines selling at Bangalore for a rupee. Dr. Riddell, who paid great attention to its culture tells us that three varieties of this fruit are met with in the Dekhan, a large round white sort, of a delicious flavour; the flat China; and a small thin-skinned description more resembling an apricot in appearance and much harder than the others. The peach is easily cultivated by seeds or layers. A seedling will throw out blossom in the second year, and be ten or twelve feet in height: it requires to be carefully pruned, wintered, and watered. No branches should be allowed to grow on the stem closer than three feet from the ground; all spurious and misplaced shoots should be rubbed off before gaining strength to exhaust unnecessarily the juices of the tree; and all distorted leaves, the work of insects, of parasitic plants, mildew, &c. should be picked off and destroyed. The kernels of the peach should be carefully removed from the shell, and in no ways injured, if required for planting: they should be sown in small beds at the commencement of the rains, about eighteen inches apart, and as soon as the trees are fit for removal, a good sized ball of earth must be taken up with the roots, to prevent the root fibres from receiving injury. All the buds around the stem had better be rubbed off by the hand, as far as requisite, and a proper shape be given to the tree, by cutting out all the superfluous spurs and their branches. The time for opening the roots of the peach is after the close of the rains: then remove the earth with care, so as not to injure the roots, for the space of three feet round the stem; pull off all the leaves, and cease to water the tree until the blossom buds appear; then cover up the roots with good loam mixed with old rotten manure; water freely every third or fourth day, until the fruit begins to ripen, after which be guided by circumstances. It is necessary sometimes to thin the fruit, and also to put the peaches in bags, as they begin to ripen, otherwise the birds destroy them. In the Dekhan, peaches first come in about February, and with care may be continued until the rains commence, after which the excess of moisture received by the leaves and roots causes the fruit to swell and burst. The flowers are purgative, but also narcotic. The leaves and kernels on distillation yield abundance of prussic acid. The fermented fruit gives an excellent brandy, chiefly manufactured in the United States of America. The bark gives a large quantity of gum during the hot season.—

AMYGDALUS PERSICA. *v.* NECTARINA *Ait.* PERSICA LŒVIS D. C. The nectarine, the downy peach, is a variety of the peach tree, and is much cultivated. It is the Shaft-alu, also Moondla Aroo of the Persians. *Voigt.* 200.

AMYRIS, a genus of plants of the natural order Amyridaceæ. Roxburgh described several species, but his A. acuminata, commiphora, gileadensis, heptaphylla, nana, pentaphylla, punctata, simplicifolia, suffruticosa and Sumatrana have been removed to Balsamadendron and other genera, and of the Amyridaceæ, only the genus Sabia remains as an Indian plant. See Balsamodendron: Commiphora: Canarium. Gum elemi.

AMZATGUNGE, a town in India in Long. 84° 50′ E. and Lat. 24° 47′ N

AN, in Mewar, the oath of allegiance. Three things in Mewar are royalties;—a subject cannot meddle with the An, or oath of allegiance; the *Dan* or transit dues on commerce; and the *Kan*, or mines of the precious metals.—*Tod's Rajasthan, Vol. I. p.* 172.

ANA. Sans Food. See Ana-prasanam.

ANAB. Arab. عنب Grapes.

ANAB-US SALEB. عِنَبُ الثَّعلِب Arab.

Solanum nigrum.

ANABAS SCANDENS.

Syn.

Anthias testudineus *Bloch.*
Perca scandens. *Daldorf.*
Palmyra climber. *Eng.*

Kode... ... ... Hind.	Telli... ... ... Tam.
Panei-eri... .. ...Tam.	

This little fish is very common in the marine lagoons and near the mouths of rivers of the south and S. Eastern India. It is about five inches in length, mottled brown and yellow. They may be seem hanging on to the mangrove stems in Ceylon, by spines arranged along the margin of the gills, three and four feet above the level of the receding tide, from which elevated position they drop into the water when disturbed by a boat or a steamer passing." *Tenn.*

ANACARDIACEÆ, a natural order of plants, trees or shrubs, which abound in a resinous acrid or even poisonous juice. Many of its genera are met with in S. Eastern Asia of which may be mentioned Anacardium: Buchanania; Cambessedia: Coniogeton: Gluta; Holigarna: Mangifera, Odina: Melanorrhœa Pegia: Pistacia: Phlebochiton: Rhus: Rumphia: Semecarpus: Solenocarpus: Stagmaria: Syndesmis: Thysanus and Triceros: Wallich's list of this order gives 25; Blume gives 28 genera for Java. 'The Anacardium latifolium, and A. officinarum. Gaert. *Voigt.* is a Syn. of Semecarpus anacardium.'—*Linn. Voigt.* 269.

ANACARDIUM OCCIDENTALE. *Linn.*

Acajuba occidentalis, *Gœrtn.*
Cassuvium pomiferum. *Lam. Rheede.*

Kaju. Beng. Dekh. Hind. Malay	Bijara Sala......... Sans
Hijli badam ......Beng Hind.	Watu-Kaju.. ..... Sing.
The-ho-thayet . Burm.	Jambo-iring ? Sumatra.
Cashew-nut tree... Eng	„ cereng. „
Jambu-monat... Malay.	Kola mavah .. .. Tam.
Parunkimavah...Maleal	Mundiri maram .. „
Peiteira Manjo. .Maleal.	Thab-ambu. .... Tavoy.
Peitiea... „ „	Jidi mamedi. . ...Tel
	Munta mamidi chettu „

Its Gum.

Hijli badam ka gond... Hind	Mundiri pisin...... Tam.

Its fruit Cashew-Nut.

Hijili Badam ..... Beng.	Cajew...... Guz & Hind.
Catsjoenooten Dut.	Acaju. . ...It.
Noix d' acajou... .. Fr	Nozes d'acaju. .. Port.
Akajunusse, Westindische Anakarden.. Ger	Nueces d'acaju... .. Sp.
	Cashew-Nut... ...Eng

The Oil.

Caju apple oil Eng.	Moonthamamedy nuna, Tel.
Cajoo ka tel...... ..Hind.	Moonthericotta yennai, Tam.
کاجو کا تیل	

This small tree, sixteen feet high, is very ornamental, when in leaf. It was introduced from the West Indies, where, as also in Mexico and the two Americas, it grows: but it is now cultivated in Ceylon, all over India, Burmah, Pegu, and the Tenasserim Provinces eastwards to the Moluccas. It sometimes grows to a large size in Pegu, where it is much cultivated about Phoungye houses, and in groves near towns. The wood is dark brown, and is not, generally, deemed of value in carpentry, but, in Tavoy, Captain Dance says it is used in boat building, and it forms a charcoal, which the iron-smiths there consider the best for their trade. It bears sweet smelling flowers, succeeded by a pea-shaped fruit of a yellow or of a red color, very acrid and with an astringent juice. The Cashew-nut hangs at the end of the fruit, outside, and is about an inch long, of a kidney shape, edible and wholesome when roasted. It is found in every Indian bazaar in India, and is an article of trade and commerce. The nuts are used for imparting a flavour to

Madeira wine. Also, ground up and mixed with cocoa, they make a good chocolate and are said to yield a spirit by distillation, superior to rum or arrack, and described as possessing powerful diuretic properties. They are also said to yield by expression, an edible oil, equal to olive or almond oil. The Cashew-nut springs from one *end of the receptacle and has two shells between which there is a thick inflammable oil, called Cardole or Cashew apple oil. It is a powerful* vesicating agent, and owing to its caustic properties is sometimes applied to ringworm, warts, corns, cancerous ulcers, &c., and to floors or *wooden rafters of houses to prevent the attacks* of white ants. It is a very dangerous drug and ought never to be used. Exposure to the vapour of the oil, when under preparation, will produce violent swelling and inflammation. An astringent gum is exuded from the trunk of the tree to the extent of 5 to 12 lbs. weight annually, which should be collected when the sap is rising. It makes a fair substitute for gum arabic, forms a good varnish, and is particularly useful where the depredations of insects require to be guarded against. In S. America, book-binders wash books with a solution of it, in order to keep away moths and ants. The milky juice which flows from incisions in the trunk of the tree imparts an indelible stain to linen. The acrid nature of the plant should exclude its juices from medicine. Rheede, in his "Hortus Malabaricus" says, the slightly toasted nuts excite venery, strengthen the stomach, and afford relief in cases of vomiting and nausea—*Ainslie, p.* 228. *Roxb. ii.* 312. —*Voigt.* 270. *Mr. Jaffrey, Drs. McClelland, Riddell. Mason, Useful Plants, Hog's Vegetable Kingdom, M. E. Jur. Report. Captain Dance.* See Notices under Oil. Cashew Nut Oil; Cashew Apple Oil; Cashew Gum. Cardole. Casearia elliptica; Dolichos biflorus and resins.

ANA-CHUNIDA. MALEAL ആനച്ചുണ്ടി TAM. Solanum ferox.—*Linn.*

ANACYCLUS PYRETHRUM, *De Cand.* Syn. of Anthemis Pyrethrum.

ANAGALLIS. *Linn.* A genus of plants of the natural order Primulaceæ, of which A. arvensis, with small scarlet and A. cœrulea with small blue flowers are of Europe, Middle Asia and North America, and A. arvensis var. β cœrulea, described by Roxb. as A. arvensis, with light blue flowers, is a native of Kemaon, Nepaul and Khassya and is cultivated as a flowering plant, in India. *Riddell. Voigt.* 335. Wight gives a figure also of A. latifolia.

ANAGAMI PALI. In Buddhism the third of the four paths leading to nirwána.—*Hyder*, p. 438.

ANAH, a town of Mesopotamia.

ANAI. MALAY. Termites.

ANAI-KUTTALAY. ஆனைக்கத்தாளை TAM. Agave Americana.

ANAITIS an Assyrian deity introduced into Egypt. See Ken.

ANAK. ARAB. آنك Lead.

ANAKONDA, of Ceylon is the Python reticulatus of Gray. It is occasionally of great *size, but perhaps rarely exceeding twenty feet, though Mr. Sirr mentions that when full grown,* it is said to measure from 17 to 20 and even 25 feet long, with a circumference of two and a half feet.—*Sirr's Ceylon.*

ANAKALA CRITA. SANSC. *one of the fifteen* kinds of slaves in Hindoo Law, a man who has become a slave voluntarily for food during famine.

ANAKAN, MAL. A low person.

ANAL. BENG. A reed, the Amphidonax bifaria.

ANAKURU, TAM A tree of western India, of little value about thirty feet long, and eighteen inches in diameter; the natives make small canoes of it, and use it in house-building. —*Edye. M. and Can.*

ANAM. The Anamese or Anamitic group of peoples inhabit Cochin-China and Tonkin, and are a section of the division to which the Chinese belong. The Chinese form of Annam is Ngannam. The language is Monosyllabic. The Tonkinese call the Cochin Chinese, Kuang and Kekuang, names probably the same as Khyen and Kakhyen. The Cochin-Chinese, on the other hand, call the Tonkinese, Kepak. The Anamese are of low stature, the men with long arms and short stout legs. They are very light colored, well and warmly clothed in silk and cotton. The men are hardy and active. The women still fairer, are well formed and graceful. The higher classes are solemn and decorous like the Chinese. The lower lively and talkative. The dress of both sexes consists of loose trowsers and loose frock with large sleeves In their persons, their dress and their food, they are very unclean. They are arrogant as to their national importance. The religion is Buddhism but Shaman superstitions also prevail. A Cochin-Chinese marries when he has the means, and among the poorer classes the age of the female is from 15 to 20. The wife is purchased, polygamy is habitual. Abortion is often had recourse to; unmarried women are not all chaste. But adultery in the married woman is punished with death.—*Latham's Descriptive Ethnology. Crawfurd's Dictionary. pp.* 321 *to* 488. See Buddha. Chinese, Cochin-China. India, p. 319, 343 and 344.

ANA-MALLAI, TAM., or the elephant-hills, a considerable group in the south of the Indian Peninsula from which much valuable timber has been obtained, yielding an annual profit of about Rupees 50,000. There are but few inhabitants—a forest race scarcely civilized.

ANAMBA GROUP OF ISLANDS, in the China Seas, consists of two large groups and several smaller ones with numerous detached islets. The larger islands are inhabited and abound with tropical fruits and vegetables — *Horsburgh*. See Pulo Repon.

ANAMIRTA COCCULUS. *W and A.*

Syn.

Anamirta paniculata. *Coleb.*
Menispermum cocculus. *Linn.*
M. heteroclitum. *Roxb. iii.* 817.
M. monadelphum. *Roxb.*
Cocculus suberosus. *W and A.*
„ lacunosus, *D. C.* „
„ orbiculatus, *D. C.*

Khanak-ul Kalb?	AR.
Bakain ka Phal?	BENG?
Cocculus Indicus.	ENG.
„ Levanticus.	„
Coques de Levant.	FR.
Jermæ..	GUZ.
Kakmari	HIND.
Bacca Orientalis.	LAT.
Tuba bidji ...	MALAY.
Gaarla Phalla.	MALEAL.
Polla, or Kakandaka-conuveh ...	„
Pola kundakah conuveh. ...	„
Kaka-mari. ..	SANS.
Kaka-calli maram?	TAM.
Kaki-champa ..	TEL.
Kakamari. ...	„

This is a strong climbing shrub, with the bark corky, ash-coloured, and deeply cracked into fissures; leaves roundish, hard, leathery. It is one of the Menispermaceæ. It grows in Ceylon, in Malabar, the Concans, the Circar Mountains, Orissa, Assam, Burmah, the Moluccas and Timor. The seeds are about the size of a cherry, the kernel is oily. They are devoid of smell, of extremely bitter taste, and poisonous in moderate doses. Tewlve grains of the seeds given to a dog killed it in five minutes. They are poisonous to all animals, and even to vegetables. A solution prepared from an extract made with the seeds killed a bean plant in twenty-four hours. Cocculus indicus is largely employed in Australia in destroying the parasitic animals which attack the skins of sheep. It is also used for stupifying fish; mixed with crumbs of bread and thrown into ponds, the fish which eat the crumbs become intoxicated, float on the surface, and are easily taken. Fish thus caught are exceedingly dangerous. It has been said that the seeds are often added to beer, to render it more intoxicating, but the truth of this accusation has not been confirmed. The only use of the Cocculus indicus in medicine is as an external application, as a powder or ointment, to destroy vermin in the hair, and in the treatment of some cutaneous diseases. Its imports into England have largely and rapidly increased, two hundred tons having been delivered in 1850, the price about 20 sh. the cwt.—*Ainslie Materia. Indica. Roxb. iii.* 817. *Voigt.* 329. *O'Shaugh.* 194 *Dr. Mason. Hog.* 31. *Useful Plants. Hook et. T.* 185. *Toole's Statistics of Commerce. Simmonds.*

ANAM-MELECH, the female power of the sun, to whom children were burned as to Molech.

ANANAS SATIVUS. SCHULT.

Syn.

Bromelia ananas, *Linn. Roxb. ii.* 116.
„ savita, *Roxb. Fl. Ind.*
Ananassa sativa, *Lindley.*

Ananas, AR. DEKH. TEL. MALAY.	
Manas...	BALI.
Nanas .	BURM. MALAY.
Pandang... ...	CELEB.
Pine-apple... ...	ENG.
Kamas...	LAMP.
Lanas... .	MADURESE.
Karda Cheeka ...	MALAY.
Nanas...	MALAY of JAVA.
Purithi... ...	MALEAL.
Koida chika......	„
Pina... ...	*PHILLIPINE.*
Anassi	SINGH.
Anasa maram... ...	TAM.
Ananas...	TEL.
Anasa chettu.. ...	„
Ananas PanduChettu	„

The pine apple, is a West Indian plant which has been domesticated in all the warm parts of South Eastern Asia and in hot houses in the colder places of Europe, but in the moist warm localities of the Indian peninsula, of Bengal Ceylon, the Tenasserim Provinces, the Straits, Moluccas, Phillipines, and China, it grows in great abundance, is even wild, forming hedges, but the flavour of the fruit which is a general favourite, is greatly improved by cultivation in rich soil. The leaves yield a very valuable fibre from which in the Straits and in Java, a much prized delicate fabric, the "*pina* silk" of commerce is manufactured. The Juries Report in the Madras Exhibition of 1855 describe its fibre as fine, white and strong, of considerable length, very silky and susceptible of being split into the finest threads and very fine specimens of it were exhibited by the Madras School of Arts as tow, hackled flax, and refuse for making string: also as thread, string, and line and clean specimens of the fibre were contributed from Cocanada, South Arcot, Tanjore, Bolarum, and Tranquebar. The leaves are gathered in the same way as the aloe, and are placed on a piece of board and scraped with a blunt knife. The fibres that are loosened are drawn out, the leaves turned over, and from four to six inches of the stem end scraped as before, and as soon as the fibres are loosened by the removal of the pulp in that part of the leaf, the fibres are taken hold of by the fingers and drawn out. These fibres are again laid on the board, and any remaining portion of the pulp gently scraped out with the aid of water, when they are gathered and dried in the sun. By another mode of treatment, the leaves are laid in the sun, so as to dry up a portion of the sap, when, on being taken up and bruised by the hand, the fibres become loosened and may be taken hold of, and drawn out. But a great loss of fibre results, so that this method cannot be recommended.—*Ainslie,* 221. *Voigt.* 461. *Hog.* 764. *Mad. Ex. Jur. Report.*

ANANAS SATIVUS VAR. B. STRIATIFOLIA. RIBBON-LEAVED PINE APPLE. This is a very ornamental variety of the pine apple which has been introduced from Malacca, into the Tenasserim Provinces.—*Mason.*

ANANAS BRACTEATUS Schult. A species from Brazil, introduced into the Calcutta gardens.—*Voigt.* 615.

ANANDA. The nephew or cousin and favourite disciple of Gautama: he was a *thero* (Presbyter) or *Bhikshu* (mendicant) and did not attain the sanctity of the *Rahat-hood*, or qualification for final emancipation without birth, till the Synod held at Rajagriha, in Magahda, soon after the death of Buddha. He was Sakya Muni's personal attendant. At Ananda's intercession female devotees (Bikshunis) were admitted into the ranks of the Buddhist community and permitted to embrace an ascetic life, and those at Mathra paid their devotions chiefly to the stupa of Ananda because of this intercession.—*Yule's Embassy, p.* 26. *Hyder's Eastern Monachism, p.* 433. See Buddha.—Sakya Muni: Topes.

ANANDA, in Sanscrit means joy, and hence

ANANDA-NAT 'HA. Sans. the lord of joy, from ananda, joy, and nat 'ha, a lord.

ANANDA, a herd, husband of Yasuda, the couple who fostered the infant Krishna.

ANANDA GIRI. A hindu author of repute, who wrote the *Sankara Digvijaya*, on the modifications of religion.

ANANDRAVER, Maleal. In N. Malabar, amongst the polyandric races who follow the descent of Marumaka tayam, or *descensus ab utero*—this is a term for the more distant relatives of a Tarwada, or united family. See Polyandry.

ANA-NERINGI. Tam. ஆனை-நெரிஞ்சி. Pedalium murex.

ANANI Sans. Earth; amongst the Kols, under the designation Isani (Isa, goddess. Anani, earth) is the worship of the earth. See Kols. 537. Cy. of Ind. Sup. ii.

ANANTA. Sans. Infinity; Eternity; Time; Endless.

ANANTA, a name of Sesha the king of the serpents. Sesha means duration and Ananta endless, in hindu theogony, the serpent on which the deity reposes in the intervals of creation. See Calpa, Hindoo. Inscriptions, p. 380, p. 383. Kalpa. Lakshmi. Sesha. Vishnu.

ANANTA VARMA, a prince mentioned in the inscription on the buddha-gaya vaulted cavern or Naga-juni cave of about the 9th or 10th centuries. *Cyc. of Ind. Supp. ii.* See Inscriptions, p. 378, 382, 392.

ANANTI అనంటి. **ANATI** అనటి. **ANTI CHETTU,** అంటిచెట్టు. Tel. Musa paradisiaca, *L.*

ANANTA-MUL, Beng. Indian Sarsaparilla, Hemidesmus Indicus.

ANAPA CHIKKUDA KAYA అనపచిక్కు-డుకాయ. Tel. Lablab vulgaris, *Savi.*

ANAPA KAYA. అనపకాయ. Tel. Lagenaria vulgaris, *Ser.*—*W. and A.* 1051.

ANA-PRASANAM, amongst the hindus, is a social and sacred rite, of giving rice for the first time to an infant, when six months old. Cyc. of Ind. Sup. ii.

ANAR. Beng. Dekh. Hind. Guz. Mahr. Pers. Punica granatum, the pomegranate.

ANARAJ, Anarajpoora, a Ceylon town, where are several Buddhist dehgopas or dagobas, the heighths of which vary. They were built at from B. C. 307 to A. D. 376. It has been in ruins for about 600 years. The ruins are 16 miles square, comprising a surface of 256 square miles. Those of Pollanarua are much smaller, but they are nevertheless of great extent.—*Baker's Rifle, p.* 99.

ANARADHAPURA, an ancient city in Ceylon, now in ruins. It is the Anurogrammum of Ptolemy.—*Hyder's Eastern Monachism, p.* 433.

ANARAJA, the ancestor of the Haras of Haraoti. He was the son of Visla-deva, or more properly of Manakya Rai, who in A. D. 695 had founded Sambur, hence his title of Sambri Rao. In A D. 1024, Anaraja took possession of Hansi or Asi in Harianah.—*Thomas' Prinsep.* 1249.

ANARADHAKA MUNDA, one of the paricidal Bhattiya family, reigned 8 years from B. C. 478. See *Bhattiya.*

ANAS or **ANOME.** Malay. Arenga saccharifera.

ANASA, అనాస. Ananas sativus, *Schult.*—Bromelia ananas, L. R. ii. 116.

ANASANDRA or **CHANDRA,** అనసంద్ర-చంద్ర. Acacia ferruginea, *D. C.*—Mimosa ferruginea, R. ii. 561.

ANAS CYGNUS. Of this genus, one of the geese division of the Anserinæ, A. Cygnoides is domesticated in China. A. cinereus common in India and A. Brachyrhynchus inhabits the Punjab.

ANASEEPOO. Tam. அன்னாசிபூ Star Anise: Illicium anisatum.

ANA SHORIGENAM. Maleal. ആന ചൊറിയണം Syn. of Girardinia Leschenaultiana: Urtica heterophylla.—*Roxb.*

ANASHOVADI. Mal. and Tam. Elephantopus scaber.—*Linn.*

ANASI. Singh. Tam. Ananas sativus. Pine Apple.

ANAS PHOOL. Hind. اناس پهول Illicium anisatum. Anise. Star anise.

ANASTATICA HIEROPUNTICA, the Rose of Jericho.

ANATA, See Anaitis.

ANATHERUM MURICATUM. Beauv. Syn. of Andropogon muricatum.

ANATIDÆ, a family of water birds several genera of which Phænicopterus ; Cygnus ; dendrocygna ; Anser ; Anas ; bernicla ; sarcidiornis ; nettapus ; Casarca, Tadorna ; Dafila ; Chaulelasmus ; Mareca : Querquerdula ; fuligula, Mergus, and podiceps, dwell in South Eastern Asia ; Sir J. D. Tennant, noticing the Ceylon birds mentions that there, are floating on the surface of the deeper water, fleets of the *Anatidæ*, the Coromandel teal, the Indian hooded gull, the Caspian tern, and a countless variety of ducks and smaller fowl, pintails, teal, red-crested pochards, shovellers, and terns. Pelicans in great numbers resort to the mouths of the rivers, taking up their position at sunrise on some projecting rock.—*Bengal As. Soc. Cat. Tennent's Sketches of the Natural History of Ceylon. p.* 262.

ANATINA SUBROSTRATA, one of the Myloridiæ, a moluse found in Australia and the Indian Ocean.—*Eng. Cyclop.*

ANAU ANANDAT, a name of Lake Manasarovara.

ANA-VINGA, Maleal. Casearia cauziala. *Vall.*

ANAXAGORAS, a Grecian whose two reputed followers were Damon and Pythias, supposed by Major Cunningham to be the words dharmma, Virtue or practical morality, and buddha, Wisdom ; See Damon and Pythias.

ANAYAN. Cowherd or Shepherd.

ANAY VAL MYRE. Tam. ஆனை வால் மயிரு Elephant's Tail.

ANAZI An Arab tribe of which in Skinner's time the estimated population was one million ; they were richer and more powerful than any, even to the shores of the Persian Gulf, the whole space between the Haman and the Euphrates nearly, belonged to them, and their boundary on the side of Arabia is close to Nedjid. They commanded the route of the Bagdad caravan to and from Damascus, and the Syrian line of pilgrimage to Mecca, from each of which they received tribute. This is the tribe classed by Niebuhr as having sprung from the Jews of Kheibar ; and in their name of Anazie, or Anaesse, he discovers the Hebrew, Hanassi.—*Skinner's Overland Journey. Vol. II, p.* 84-5.

ANBAR. Arabic. Malay. Ambergris.

ANCHAR. Malay. Antiaris toxicaria. Upas antiar.

ANCHOIS. Fr. Anchovy.

ANCHOR. Eng.

Langar,	Ar. Beng. Hind.	Langar...	Hind.
Ky-ouk-su ...	Burm.	Aucora...	It.
Ancre...	Fr.	Sawuh...	Malay.
Anker,...	Ger.	Jangkar...	"
Angkura...	Greek.	Ancla ...	Sp.
Luli...	Guz.	Langaru...	Tel.

This article of ships furniture of which there are many kinds, sheet, bower, stream, kedge and grapnel, for large vessels, is wholly imported into India. Those for smaller vessels are manufactured in this country, of wrought iron but many are of rude form. In 1847 and 1848, about 4600 tons of anchors were exported from England, and this has now perhaps doubled, their value being about £20 the ton.—*Poole.*

ANCHOVIES, Essence of: Dr. Hassall found the whole of the samples adulterated with the ferruginous oxide, bole Armenian —*Hassall.*

ANCHOVY. Eng. Engraulis encrasicholus.

Anchois	Fr.	Acciughe	It.

The anchovies met with in India are wholly imported. The true or common anchovy is the Engraulis encrasicholus of Cuvier, a small fish about four inches long with bluish brown back and silvery white on the belly. It is very abundant in the Mediterranean, where though occurring in other seas, they are chiefly caught at night, by nets, their heads immediately taken off, and their entrails removed. Another Mediterranean species E. Meletta, is largely substituted for and mixed with the true anchovy but they are from four to seven inches long ; and other fish, Dutch and Sicilian, are also employed to adulterate anchovy paste and sauce. Of species of Engraulis at Madras, three in number, the Netteli or Teran Goonie, *E. albus*, is caught in great nets, in immense numbers and by Europeans is highly esteemed for the breakfast table ; and one about 6 inches long is very delicate eating. The Tamil names of the others are *Pota Netteli* and *Maper-Netteli*. (See Engraulis.) *Jerdon.* The *gnaping-nai-say*, of the Burmese coast and Tenasserim provinces, is considered by Dr. Mason to be the *E. Meletta*, or common sardine ; but Mr. Mason, has no doubt it is an Engraulis.—*Faulkner, Mason. Hassall, Eng. Cyc. Poole p.* 9. *Bingley iii.* 221.

ANCHUSA, a genus of plants belonging to the Boraginaceæ. Voigt names A. officinalis, paniculata and undulata, but none of the species are indigenous or domesticated. Dr. O'Shaughnessy, p. 495 notices that *Anchusa italica* is mentioned by Nicander 5. 38, and is called Bugloss, from the supposed resemblance of its leaves to a cow's tongue, Bos glossa. In India the Greek synonyms *bugloozun* and *fooghulus* are assigned to *Onosma bracheatum* (Royle.) In the Bombay bazars the *Cacalia Kleinia* is similarly termed *Gao zuban*, or cow's tongue. He also describes p. 496, *A. Anchusa tinctoria.* (Alkanet) a native of Europe, for which root those of the *Onosma echioides*, and *O. tinctoria* have been substituted. The *Onosma emodi* (Wall.) of the Himalayas is closely allied to this, and is called *Maharunga* from the intensity of its colour. The alkanet of Constantinople is produced by a different order of plants altogether, being the root of the Alcanna vera. It is imported into England in very small quantities as a dye.—*St. of Com. Poole. Voigt. O'Shaughnessy p.* 495-6. *Hog.* 541.

ANCISTROCLADUS. WALL. A genus of plants belonging to the Malphigiaceæ of which A. Vahlii, and A. Heyneanus are known. The name of this plant is from *Ankistron*, a hook and *Kladus*,—a branch, in allusion to the hook-like tendrils on the branches.—*Gr. Cat. p.* 28

ANCISTROCLADUS VAHLII. ARN. Gona Wel. Singh. Gona pattan Wel. Singh, grows in the central and southern parts of Ceylon up to 200 feet.—*Thwaites p.* 188.

ANCISTROCLADUS HEYNEANUS. *Wall. Cat. Kurdal*, Mahratta. Modira valli Mal. Rheede. Valli Modigam, Mal. Rheede. Grows at the Parr Ghaut: ravines at Khandalla, but not common. The Modira valli usually quoted for Artabotrys odorotissima, has a great resemblance to this plant. This is a very pretty shrub, but hardly known yet to European botanists.—*Gr. Cat.*

ANCISTROCLADUS EXTENSUS. *Wall.* a climbing shrub of Amherst.

ANCISTROLOBUS CARNEUS, *Wall.*
Hypericum carneum, *Wall. Cat.*

Zeen-ga-lay- ...	TAVOY.	Zoung-ga lae...	BURM.
Zin-ga-lae. ...	„	Toung-ga-la	MARTABAN.

This tree attains a maximum height of 30 feet, it rarely exceeds 3 feet in girth and its maximum is 3 cubits. It is plentiful in the Pegu and Tounghoo forests, where the timber grows very tall, and it is found widely scattered, all over the Amherst, Tavoy and Mergui Provinces, but in none abundant. It is also a native of China. Its dark brown wood, when seasoned, floats in water. It has a long fibre, tenacity, durability, and sufficient lightness, and is very free from knots. It is used by the Burmese for building, for ploughs, and for utensils of all kinds, and is recommended for handles of chisels, hammers and tools generally.—*Captain Dance, Dr. McClelland. Dr. Mason. Voigt.* 89.

ANCISTROLOBUS MOLLIS.
Yin-bya. ... ... BURM.

This tree is described by Dr. McClelland along with A. Carneus, as plentiful in the Pegu and Tounghoo forests. The timber grows very tall, but seldom exceeds three feet in girth. Wood dark brown.—*c MClelland.*

ANCLA. SP. Anchor.

ANCORA. IT. Anchor.

ANCRE. FR. Anchor.

ANCUSA. IT. Alkanet.

ANDALUSITE, is said to occur in the slate strata near the granite East of Tavoy.

ANDA GOMESII. JUSS. A tree introduced from Brazil to the Calcutta gardens with small white sweet scented flowers.—*Voigt.*

ANDAMAN ARCHIPELAGO lies on the Eastern side of the Bay of Bengal. It consists of three principal islands, which give the name to the group together with smaller islands and rocks lying in and near the meridian of 98° E. and comprehended between the parallels of 10° 25' and 15° 0', N. Preparis Island is the most northern of the group. The Great Coco, 6 miles long and 2 miles broad, is 45 miles distant from Preparis Island, extending from lat. 14° to 14° 8' N. and is in long. 93° 25½' E. The Little Coco is 9 miles to the S. W. of the Great Coco and is 2½ miles long, and about half a mile broad. The Great Andaman, is in reality composed of three islands, which extend from Cape Price in lat. 13° 34' N., long. 93° 9' E. to the S. E. point in lat. 11° 30' N. long. 92° 56' E. in a S ½ W. direction. The Islands are separated from each other by two narrow straits. There are great coral reefs on the western side of the group rendering the coast dangerous. The North Andaman is about 44 miles in length from north to south and 14 in breadth, and Port Cornwallis is on the east side, in lat. 13° 18' N. It is an excellent bay or harbour, about 3 miles broad and extending about six miles into the land in a N. Westerly direction. The middle Andaman is about 50 miles in length from north to south and 15 or 16 in general width. While the south Andaman is about 43 miles in length north to south and from 9 to 15 in width.—These islands were surveyed in 1789 and 1790 by Lieutenant Archibald Blair R. N, who made a circuit of the entire archipelago, and embodied the result of his researches in general charts, plans, and a report containing useful information for mariners. The islands are indented by numerous bays and inlets. Some places may be distinguished afar off by white cliffs, which rise abruptly from the sea. The Islands form part of a volcanic chain which extends from Sumatra to Cape Negrais on the coast of Burmah. The coasts, and probably the inland parts also, are covered with dense jungles of lofty trees, the forests being rendered impervious by tangled brushwood and intertwining creepers and rattans, scarcely pervious, it would appear, even to the wild race by whom the islands are exclusively occupied. In the year 1791, a settlement was formed by the British Government at Port Chatham, near the southern extremity of the Great Island, which is about one hundred and forty miles long, and twenty miles broad. The chief object was the establishment of a naval station, at which ships of war on the Indian station might repair and refresh, the luxuriant growth of the timber trees, and the favourable position of the islands for communication with all parts of India, having led to the selection of the

Andamans for this purpose. The establishment consisted of a few companies of native troops from Bengal, and of a body of convicts from the same place. In 1793, the establishment was removed, at the suggestion of Admiral Cornwallis, to the port at the opposite end of the island, which now bears his name. The establishment was only maintained for a few years longer—the settlement proving so pre-eminently insalubrious that it had to be abandoned towards the close of 1796, but, in the interim, it had been visited by Colonel Symes, when on his voyage to Burmah, on a diplomatic mission, and the interesting description of the inhabitants, which is contained in the narrative of his embassy, is that by which the natives of these Islands were long best known. The Andaman Islands are inhabited by a race of men, the least civilized perhaps in the world; being nearer to a state of nature than any people we read of. Their colour is of the darkest hue, their stature in general small, and their aspect uncouth. Their limbs are ill-formed and slender, their bellies prominent; and like the Africans, they have woolly heads, thick lips, and flat noses. They go quite naked, the women wearing only at times a kind of tassel, or fringe round the middle, which is intended merely as ornament, as they do not betray any signs of bashfulness when seen without it. The men are little above 5 feet in height, 5 ft. 2 and 5 ft. 3 inches, are cunning, crafty, and revengeful; and frequently express their aversion to strangers in a loud and threatening voice, exhibiting various signs of defiance, and expressing their contempt by indecent gestures. At other times they appear quiet and docile. Latterly, they have become quite familiarized to Europeans, but before that they would affect to enter into a friendly conference, and after receiving, with a show of humility, articles presented to them, they set up a shout and discharged their arrows at the donors. On the appearance of a vessel or boat, they would frequently lie in ambush among the trees, and send the oldest one of their gang, to the water's edge, to endeavour by friendly signs to allure the strangers on shore. If the crew ventured to land without arms, they instantly rushed out of their lurking-places, and attacked them. In these skirmishes they displayed much resolution, and plunged into the water to seize the boat; and they have been known even to discharge their arrows while in the act of swimming. Their mode of life is like the brute, their whole time is spent in search of food. They have yet made no attempts to cultivate their lands, but live entirely upon what they can pick up, or kill. In the morning they rub their skins with mud, or wallow in it like buffaloes, to prevent the annoyance of insects, and daub their woolly heads with red ochre or cinnabar. Thus attired they walk forth to their different occupations. The women bear the greatest part of the drudgery in collecting food, repairing to the reef at the recess of the tide, to pick up shell-fish: while the men are hunting in the woods, or wading in the water to shoot fish with their bows and arrows. They are very dexterous at this extraordinary mode of fishing, which they practise also at night, by the light of a torch. In their excursions through the woods, a wild hog sometimes rewards their toil, and affords them a more ample repast. They broil their meat or fish over a kind of girdle made of bamboos; but use no salt or other seasoning. The Andamaners display much colloquial vivacity, and are fond of singing and dancing, in which amusements the women also participate. Their language has been said to be rather smooth than guttural, and their melodies are in the nature of recitation and chorus, not unpleasing. The Editor sat for several hours with two intelligent Andamaners, one said to have been their chief who slew a European and the other his near relative, and was witness to their meeting with others of their tribe, from whom they had suffered a prolonged separation. There has no doubt remained on his mind that their language is very limited as to the numbers of words; during his stay an officer visited them, who was under the impression that he knew words of their tongue. But, he was deceived by that marvellous power to imitate which these people possess, every vocal sound being repeated instantly, and with a wonderful precision. At the moment, this power to repeat accurately foreign words from a strange race, imparted the idea that they understood and could apply such words: But their enunciation of vocables could only be compared to the acts of the ape tribes where a new article is taken up and admired and allowed to drop and break, without the acquisition of any knowledge as to the result of so dropping a frangible material. The two chiefs alluded to had been for two months in the verandah of the guard room for European sailors, but, they had not acquired a single word of the English tongue. This part of their character is noticed by an anonymous writer who says every one, who saw the specimens of those people during their brief visit to Rangoon, found them the most determined imitators possible. Every sound uttered, no matter in what language, was repeated with a distinctness, and even an emphasis by the islanders, that quite surprised the listener. Of course, they could understand nothing that was said to them, but the moment a question was put to one of them, it was instantly repeated with a precision that no European could possibly imitate with respect to a language of which he had previously heard nothing. There was no study whatever in the case. The clear repetition of the words appeared to depend on the keenness of hearing in the islander, and of the readiness with which he could adopt his vocal organs to bring out foreign words. Like all animals, they seem disposed to do mischief on the spur of a moment, but they do not realize any fear of its after consequences. For instance, they will rob a plantation, or even knock over a convict, and half an hour after, they will look as innocent and indifferent of the crime they have committed, as if nothing had happened. In a civilized person, whose conscience is awake to "*good*" and "*evil*," fear instantly seizes the offender, and until he sees what will be the result of his rash act he is naturally apprehensive of its penal consequences.

Their numbers have been estimated at from 3,500 to 10,000 but, the editor estimated the entire tribe at about 1,000. As civilization advances they must gradually disappear or accommodate themselves to the new state of matters. The chances are that a few years hence but few of these poor creatures will remain in their aboriginal state. The Andamaners dance in a ring, each alternately kicking and slapping the lower part of his person ad libitum. Their salutation is performed by lifting up a leg, and smacking with their hand the lower part of the thigh. Their dwellings are the most wretched hovels imaginable. Three or four sticks are planted in the ground, and fastened together at the top in the form of a cone, over which a kind of thatch is formed with the branches and leaves of trees. An opening is left on one side, just large enough to creep into, and the ground beneath is strewed with dried leaves, upon which they lie. In these huts, are frequently found the skulls of wild hogs suspended to the roofs. Their canoes are hollowed out of the trunks of trees by means of fire and instruments of stone, having no iron in use among them, except such utensils as they may have procured from the Europeans and sailors who have lately visited these islands, or from the wrecks of vessels formerly stranded on their coasts. They use also rafts made of bamboos to transport themselves across their harbours, or from one island to another. Their bows are remarkably long and of an uncommon form; their arrows are headed with fishb-ones, or the tusks of wild hogs; sometimes merely with a sharp bit of wood hardened in the fire, but these are sufficiently destructive. They use also a kind of shield, and one or two other weapons have been seen amongst them. Colonel Symes adds, a spear of heavy wood sharply pointed. Of their implements for fishing and other purposes, little can be said. Handnets of different sizes are used in catching the small fry, and a kind of wicker-basket, which they carry on their backs, serves to deposit whatever articles of food they can pick up. A few specimens of pottery ware have been seen in these islands." The Andamaner has the appearance of the small sized Negro race about 5·3 inches high and would seem to be the descendants of the same wave from the West that has left its features in the South of the Peninsulas of India and Malacca, and the Semang and the Negrittos of New Guinea. The Andamans have a climate milder than that of the Tenasserim and Pegu coasts and more resembling that of Colombo or of the low lands of Penang. The range of the thermometer, during the past three years, gives a maximum of 90½° and a minimum of 70° in the shade. In the sun maximum 115° minimum 73°—at 4 P. M.—while the average annual fall of rain was 116 inches. This fall appears to have been distributed over 165 days. Like all insular positions the Andamans seem liable to be visited by hurricanes. The hills on the main land as seen from the clearings appear about 800 feet high, having rich valleys with considerable area of level land, and thence sloping gradually to the sea. After the mutinies of 1857, parts of these islands, Ross Island, Viper Island, and parts of the island opposite Ross, have been cleared and convict settlements formed for the mutineers at Port Blair, Haddo and Aberdeen, with a coast road from Haddo to Aberdeen and to Phœnix Bay, and another to Navy Bay. In these Bays and Coasts, the mangroves abound, and the smell around was malarious. The numbers of convicts have risen to about 3,000 to 4,000 but about 500 from them have endeavoured to escape to what they supposed a neighbouring mainland. These islands have been written up as suitable for colonists, but there is no outlet for produce. The immediate neighbourhood of "Aberdeen" is the spot recommended for intending settlers. Sugar cane of three years growth flourishes vigorously up the sides of the hill. Cotton also thrives as well as "jowarry"—"bajra" and "hemp." Vegetables in profusion are obtained all the year round—on the main land an extensive clearing has been made opposite Ross Island and dignified with the name of Aberdeen. It is elevated about 60 feet above the sea in the form of a table-land. A system of cultivation and nurseries is there carried out though on a more extensive scale. The cocoanut, areca palm, mango, mangosteen, dorian, nutmeg, orange, arrow-root, &c., all promise well, notwithstanding the formidable difficulties they have had to encounter. The general contour of the islands is that of abrupt elevations of 150 feet in height, with sides sloping to the sea beach.—*Horsburgh, Journ.*

As. Soc. Beng. Selections from the Records of the Government of India. Rangoon Times.—Asiatic Researches. Vol. iv. p. 389, *et. seq.* See India. p. 347. Marco Polo. Semang.

ANDAMAN RED-WOOD. Eng. Syn. of Pterocarpus dalbergioides.—*Roxb.*

ANDERE. Cyngh. Acacia *Sp.*

ANDERSON The Reverend John,—an eminent missionary and school founder at Madras, in connection with the Scotch established and the Free Church. Born 1805, died 1855.

ANDERSONIA, *Roxb.* A genus of plants now transferred to Conocarpus acuminata and C. latifolia and A. Rohituka to Amoora. q. v. See Dinduga tree, Rohun Hind. Andersonia rohituka.

ANDERTHALB. Ger. Sodæ sesquicarbonas.

AN-DES, of India are the alpine regions of Thibet, bordering on Chinese Tartary.—*Tod.*

ANDGERI, Can.

Ind Yeru... ... Mahr. | Yeru. ... .. Mahr.

The flower of this timber tree has not been seen, and its generic name remains undetermined, but it is supposed to be a species of Sapindus or Nephelium. It is found in the Canara and Sunda forests, above the ghat, chiefly at Nilcoond and in the southern jungles. The wood is serviceable in house building.—*Dr. Gibson.*

ANDHER, a little village 10½ miles S. W. of Bhilsa and 5 miles W. of Bhojpur. It contains remains of Buddhist topes.

ANDHRA. The Andhra or Vrispala dynasty of Andhra (Orissa?) or Telingana is first noticed in the Vishnu Purana which predicts that thirty Andhra Bhritya kings will reign 456 years. Professor Wilson adds in a note that the Vayu and Bhagavata state also 30 kings and 456 years and the Matsya has 29 kings and 460 years. The actual enumeration of the texts gives but 24 names; that of the Bhagavata, but 23: that of the Vayu, but 17. The Matsya has the whole 29 names, thus adding several to the list of 24, and the aggregate of the reigns amounts to 435 years and six months. The first was Sipraka, B. C. 21, a powerful servant of Suserman, and whom [illegible] killed and then founded the Andhra Bh[illegible] dynasty. The last was A. D. 428, Cha[illegible] (or Vijaya last Magadha king, 300 Jones, 546 Tod) Pulomarchish, (Poulomien of Chinese, Wd.) died 648 A. D. Salomdhi, Tod, contemporary of Boppo Rawal of Mewar, A. D. 720?) Professor Wilson arrives at the conclusion that the race of Andhra kings should not commence till about 20 years B. C. which would agree with Pliny's notice of them: but it is possible that they existed earlier in the South of India, although they established their authority in Magadha only in the first centuries of the Christian era and ended in A. D. 436. Chicacole and Rajahmundry were the capitals of the territory, which is now known as Telingana, and also the Northern Circars. Pliny speaks of the Rex Andrarum as a powerful Indian prince. The Andhra Brahmans regard themselves as a distinct race.—*Thomas' Prinsep's Indian Antiquities, p.* 241. *Wilson's Glossary.* See Chalukya: India.

ANDI. A religious mendicant of the Saiva sect in the South of India.

ANDI-PANDOO. అంటి - పండు. Tel. Banana.

ANDKHO. Across the Moorghab, and towards Balk, which city is in the territory of the king of Bokhara, lie the small states of Andkho, Maimuna, Shibbergam, Siripool and Akchee; a connection subsists between them and Herat, but since they are divided against each other, their aid is of small avail. All of them are engaged in the slave trade, and independent, though they send presents of horses both to Herat and Bokhara. *Maimuna* is the most important of the whole: the chief in 1840 was Mizrah Khan, an Uzbek of the tribe Wun, and his country extended from Maimuna to the Moorghab, and adjoins that of Sher Mahomed Khan Huzara. Maimuna itself is an open town, or rather village, of about 500 houses; but the strength of the chief consists in his "ils," or moving population, who frequent Ulmur, Jankira, Sorbagh, Kaffir Killa, Khyrabad, Kusar, Chuckaktoo, Tukht-i-Khatoon, and other sites, which can scarcely be called villages. He also numbers Arabs among his subjects, many of that tribe having been long settled here.

Andkho, or Andkhoee, in 1830, was ruled by Shah Wale Khan, an Afghan Toork, who settled here, with others of his tribe, in the time of Nadir. They were then shiahs, but are now soonees. The "ile" of the chiefs, besides his own race, are Arabs, and he can furnish 500 horse, and is on good terms with Maimuna. Andkho has a larger fixed population than Maimuna, being in one of the high roads to Bokhara, but there is a scarcity of water in this canton. It is here that the wheat is a triennial plant. Andkho is the place where Moorcroft perished.

Shibbergam, belongs to an Uzbek chief, in 1830 named Roostum Khan, who has a character for moderation; he can muster 500 or 600 horse, and is on good terms with both Maimuna and Koondooz. Shibbergam is considered to be a very ancient place, being given to the days of the Kaffirs (Greeks), and still the strongest fort in these parts. The "ark" or citadel is built of brick and mortar, and surrounded by other walls of mud. Kalick Ali Beg, the late chief of Balk, besieged it for seven years without success, but it must only be understood to be strong against Uzbeks, who are badly supplied with artillery. Water is conducted to it from the rivulet of Siripool.

Siripool. Zoolfkar Sher, an Uzbek of the tribe of Achumuelee, governed Siripool, in 1842 known as a brave and determined man. His "ils" are in Sungcharuk, Paogan, Goordewan, and Daghdrab. Siripool itself is as large as Maimuna.

Akhchar is a dependency of Balk, and held by a son of Eshan Khoja, governor of that once vast city.

All of these chiefships are situated in the plain country, which in general is well watered by rills or canals, and has abundance of forage for camels and horses, which are numerous. The soil is dry, but there are many gardens near the towns. The style of building, from a scarcity of wood, is that of the bee-hive shape. There is a good open caravan road from Meshid to Balk, which is a journey of 16 days; thus, from Meshid to Shurukhs, four; to the Monghul, three; to Maimuna, four; and to Balkh in five days. This is much the nearest route to Cabool from the west.—*Burne's Papers. East India, Kabul and Affghanistan, p.* 137. *Papers East India Cabul and Affghanistan, p.* 136.

ANDRACHNE TRIFOLIATA. *Roxb.*

Syn.

Stylodiscus trifoliatus. *Bennett.*
Psychodendron trifoliatum. *Wall.*

Uriam, Assamese.

A tree of quick growth; found in Java, Ava, Peninsula of India, at Hurdwar, Chittagong, Nepal and Assam. Wood and bark red. Employed for masts and spars of small vessels.—*Voigt. Cal. Cat. Ex.* 1862.

ANDROGRAPHIS. Wight, in his ICONES, gives figures of A. Ceylanica, echioides, lobelioides, Neesiana, paniculata, serpyllifolia; viscosula, Wightiana. The following may be noticed.

ANDROGRAPHIS ECHIOIDES. *Nees. W. Ic.*

Syn.

Justicia echioides. *Roxb.*

Chavalapuri Kada.	TEL.	Gorre Chimidi	TEL.

This plant grows in Ceylon, in the peninsulas of India and Malacca and in the Himalayas. It has two varieties, *a* Lamarckiana the Justicia of Lamarck, and *b*. Linnæana, the J. echiodies of Roxburgh.—*Voigt.* 693.

ANDROGRAPHIS PANICULATA. *Wall.*

Syn.

Justicia paniculata. *Burm. Roxb. i.* 117.

Ufar ?...	AR.	Kiriatha ...	MALEAL.
Kalo megha ...	BENG.	Kara-Kauiram ..	"
Maha tita...	"	Kairata ...	SANS.
Kriat...	CAN. DUK·HIND.	Hin-bin-komba ..	SINGH.
Kalpa...	SINGH.	Kiriat ...	TAM.
Kriatha ..	"	Nela Vembu ...	"
Kriyat...	HIND.	Nela Vemu ...	TEL.
Kalupnath : Maha-tita (great bitter.)	"	Kari Vemu...	"

This valuable plant grows in dry ground, under the shade of trees, and it flowers in the cold season. It is found wild in Ceylon, the peninsula of India, in Bengal, and Java, but it is now cultivated in Tinnevelly. The roots have long been a popular febrifuge and stomachic. It is the basis of the "Drogue amere," or a compound of mastic, frankincense, resin, myrrh, aloes, and creat root, steeped in brandy for a month, and the tincture strained and bottled. It is an annual and, according to Ainslie, was originally brought from the Isle of France. But it is cultivated in Tinnevelly and other districts; and is now found wild in Bengal and probably in the Peninsula. It is the true Chiretta. but it is only one of the plants from which the Chiretta of the bazars is obtained. See Chiretta.—*Voigt.* 493: *O'Shaughnessy, p.* 482 *and Beng. Pharmacopœia* 210. *Indian Annals, No.* 6.

ANDROMEDA FASTIGIATA; the Himalayan heather grows abundantly on Mon Lepcha, at 13,080 feet, and affords a good fuel. Another species A. ovalifolia is named as occurring along with an Ilex.—*Hooker Vol.* 1, *p.* 343.

ANDROPOGON, Eighteen species are given in *Voigt's* Calcutta plants brought together under this from other genera, Anatherum; Phalaris; Anthisteria: Cymbopogon: Calamus : Holcus and Saccharum. Of these 18 species, A. Arundinaceus : A. punctatus, *Roxb.* A. Bladhii, *Retz.* A. Trispicatus, *Roxb.* A. pertusus, *Willd.* A. glaber, *Roxb.* A. Roxburghianus, *Schult.* A. conjugatus, *Roxb.* and A. binatus, *Retz.* are of Bengal. A. Cymbarius, *Linn.* is of the Coromandel mountains, A. Prostratus, *Linn.* of the Indian Peninsula. A. scandens, *Roxb.* of the Indian Peninsula and Bengal and A. Miliformis *Schult* of Lucknow. Andropogon acicularis *Retz.* is now transferred to Chrysopogon. Much confusion however seems to prevail as to the classification of these grasses, which by some are arranged amongst the [illegible]minaceæ, and by others amongst the Panicaceæ. The A. contortus, as also A. aciculatus has been indicated [illegible]ar grass. The following merit separate notice,

ANDROPOGON BICOLOR. Black Joar-

Kala Joar, HIND.

Cultivated in some places near Ajmir. *Genl. Med. Top. p.* 176.

ANDROPOGON CALAMUS AROMATICUS. *Royle.* Its oil is the *Rooya-ka, tel,* Hind. Dr. Royle regards this andropogon as the plant which yields the oil of Nemaur, known in Southern India as the Roosa Grass oil, which differs but little either in appearance or quality from the Lemon grass oil, is used for the same purposes, forms a good substitute for the more expensive cajaput oil, and is sold in England under the name Oil of Rose-scented Geranium. This plant is supposed by Dr. Royle to be the calamus aromaticus of the ancients; yields a volatile oil, erroneously termed oil of spikenard; The true spikenard of the ancients is supposed to have been obtained from the Nardostachys Jatamansi, a plant of the Valerian family. *O'Shaughnessy. Royle. Jur. Rep. M. E.* 626.

ANDROPOGON ESCULENTUM. several species of andropogon, as the genus is described by Roxburgh, are among the most abundant of the grasses of Burmah, one of these Dr. McClelland describes under the name of Andropogon esculentum, or Lemon grass, (Tsablain, Burmese) cultivated in small quantity in every village throughout the country, and to be had in all the bazars. It is a valuable article, and in a dry state might be found profitable for export. Mr. Jaffrey mentions that A esculentum, (*Narthum-pilloo*, Tamil) is used in Madras to perfume water which the people drink, and that a proportionate quantity imparts a pleasant flavour to tea.—*McClelland. Jaffrey. Mason.* See Vegetables of Southern India.

ANDROPOGON GLABER. *Roxb.*

Syn.

Gundhagoorana, *Beng* | Tambut *Dec.*

grows in the higher parts of Bengal. *Roxb.* i. 267.

ANDROPOGON IWARANCUSA. *Roxb.* Syn. Andropogon Nardus. *Rottl ? Ainslie*, 115. *Roxb.* I. 275.

Iwarancussa.

Iwaran-kusba...	BENG.	Gaccha...	SANS.
Ibharan „	„	Allapu Kommuvella vantigaddi ...	TEL.
Karan „	„		

Its oil.

Roosa oil, Roosa grass oil.

A native of the low hills along the base of the Himalayas, at Hardwar and the Kheeree pass and also found at Asseerguh and in Malwah, generally. The roots of this fragrant grass are used by the Natives in northern India in intermittent fevers. In habit and taste it comes remarkably near A. Schœnanthus. The oil is used as a stimulant internally and externally, much in the same manner as oil of cajeput.—Roosa oil, has long been supposed to be the celebrated grass oil of Nemaur, but Dr. Royle, does not recognise the correctness of this opinion and refers the Nemaur oil to the A. Calamus aromaticus It is probable, however, that the several species furnish oils of similar characters. *Roxb.* I. 275. *O'Shaughnessy.* 680. *Voigt.* 707. See Grass Oil of Nemaur.

ANDROPOGON MARTINI. *Roxb.* I. 277.

Syn.

Andropogon nardoides, *Nees ?*
Andropogon calamus aromaticus, *Royle.*

Grass oil of Nemaur		Kubell...	HIND.
Rousa grass Oil...	ENG.		

This plant grows in the Balaghat, in Central India, and northwards to Lucknow and Delhi. It has a strong aromatic and pungent taste, so that the milk and butter and flesh of animals who feed on it are impregnated with it. Grass oil is never taken internally by natives, but they have a great faith in it as a stimulant to the functions of the several organs, when rubbed on externally. They also use it as a liniment in chronic rheumatism and neuralgic pains, and though they place great reliance on its virtues, its expence prevents it being used generally. It has a fragrant aromatic smell, persistent, and very agreeable at first, but after a time the odour becomes unpleasant, and gives many people a feeling of sickness with headache. The natives use it for slight colds; also, to excite perspiration, by rubbing in a couple of drachms on the chest before the fire or in the heat of the sun. The pure unadulterated oil has been used with effect in rheumatism; A spurious article is prepared by distilling sesamum oil in which at Saugor twenty seers of oil, the grass, for which grows wild over the station and district, are mixed with two seers of sesamum oil, and then slowly distilled. The oil thus becomes highly impregnated with the peculiar roosa flavour, and is sold as such at 4 Rs. a seer. It is also known under the names of grass oil and ginger grass oil. It has an odour distinct from that of lemon grass and citronelle. For the 1862 Exhibition, every endeavour to obtain unadulterated oil failed. The best is said to be pressed at Ajmere. *Voigt.* 707. *Roxb.* i. 277. *Cal. Cat. for Ex. of* 1862. *Gen. Med. Topography. p.* 176.

ANDROPOGON MURICATUS. *Retz. Roxb.* i. 265.

Syn.

Anatherum muricatum. *Beauv.*
Phalaris zinania. *Linn.*

Khor ?	ASSAM.	Jalasayah ? ...	SANS.
Kror ?	„	Lamajjakamu...	„
Kaskas ghas... ...	BENG.	Viranang... ...	„
Pan-yen,... ...	BURM.	Viratarang ...	„
Cuscus	ENG.	Vette-ver ...	TAM.
Khus-khus	„	Kuru-veru ...	TEL.
Bina	HIND.	Kassuvu... ...	„
Usir	„	Avuru gaddi ...	„
Khas-khas	„	Vatti-veru. ...	„
Bata	„	Vidavali... ...	„
Garrar ?	„	Nalla vatti veru.	„
Gandar ?	„	Tella „ „	„
Akar-wangi ...	MALAY.	Ouru „ „	„
Ramcibam ...	MALEAL.	Vákila... ...	„

Grows in many parts of India, in every part of the coast, in Bengal, in the south of the peninsula and in Burmah, is cultivated for its roots, which are used for making the fragrant fans and tatties in general use. The grass is used for thatch. It seeks a low rich moist soil, especially on the banks of water-courses. It covers large tracts of waste land in the province of Cuttack. Known generally by its aromatic perfume, it is also locally used as a medicine, for much the same purposes as sarsaparilla. Its roots and oil are used in native medicine for other purposes. Under the name of Khuskhus Attur an essential oil is extracted at Lucknow, from the roots and sells in the Bazaar at 2 Rupees per tola. It is probably merely a perfumed seasmum oil. But the plant grows spontaneously and plentifully in all the jungles of Oudh.—*Roxb. i.* 265. *Voigt.* 706. *Dr. Mason,* 501. *Ainsl. M. Exh.*

ANDROPOGON NARDUS? *Rottl.* ? *Ains.* ?

Naringi ke bas ka ghas	DUK.	Wassana-pillu...	TAM.
Gand bel?	HIND.	Allapu kommu-vélla-vanti-gadda	TEL.
Bhustrina?			
Guchcha	SANS		

There seem to be grave doubts as to the right of this plant to be separated from A. iwarancusa, *Blane,* and A. nardioides of Riddell seems identical. Ainslie says that Wassanapilloo makes a very pleasant tasted tea and valuable diet drink. In infusion, it is a stomachic and it yields an essential oil.—*Ainslie Mat. Ind.* 258. *Voigt.* 707.

ANDROPOGON NIGER: *Kunth.* In 1859 seeds said to be of this plant were distributed throughout India. In 1853, this plant was introduced into France from China, and it became the subject of much discussion among European botanists to determine to which genus it belonged. Kunth named it Andropogonniger. It produces an abundant crop of grain. The husk or rind yields a superb dye of a violet red, a colour which, combined with acids and alkalies, gives a variety of tints, such as deep red, orange red, brown red, &c. This dye has been recently applied to cotton wool and to silk. A rich saccharine juice in the stalk, yields 14 per cent. of sweet extract, of which 10½ per cent. is fit for crystallised and 3½ per cent. for uncrystallised sugar, and all can be made, if wanted, into alcohol. Sugar can be extracted direct from it, in the European fashion; and jaggery can be made by the Natives, which can be refined either in India or in Europe. The Andropogon niger which, in temperate regions takes 4 or 5 months to arrive at its full perfection, will not, it is said, at the utmost take more than 2 or 3 months in the hot regions of India, and four crops a year can be gathered from it; but the plant requires irrigation; such as to be found in the delta of the Godavery, where it is derived from the anicut. Mr. Walter Elliot mentioned that this was known to farmers of the peninsula as the Sugar Sorghum. *Balfour, Madras Museum.*

ANDROPOGON SACCHARATUS. *Rox.*

Deodhan... ...	HIND.	Shaloo	DEC.

May be the A. Niger above noticed. Dr. Roxburgh says it is much cultivated over various parts of India. See Holcus saccharatus.

ANDROPOGON SCANDENS. *Rox.* is the Maewail, of the Dekhan.

ANDROPOGON SCHÆNANTHUS. *Linn.*

Syn.

A. Citratum. *DeCand.*
Cymbopogon schænanthus. *Spring.*

Sirri... ..	AMBROYNA.	Gour-gia ...	PERS.
Gundho-bina ..	BENG.	Bhustrinang ...	SANS.
Tsa-ba-len? ...	BURM.	Mala-trinakang.	„
Sa-ba-len	„	Peugiri Mana...	SINGH.
Mik-ka-thu. ...	„	Wassana pillu ...	TAM.
S'pa-len... ...	„	Kamachi-pillu ...	„
Sweet-rush ...	ENG.	Kavatam pillu ...	„
Lemon-grass ..	„	Kamachi-kassuvu.	TEL.
Σχονοανθος	GER. of Kipp.	Bhu-strunam ...	„
Ghanda-bela ...	HIND.	Chippa-g... ...	„
Gand Bel	„	Kamanchi gaddi...	„
Juncus odoratus ..	LAT.	Nimma gaddi ...	„
Sireku ...	MALEAL.	Vasana gaddi ...	„

The Oil.

Lemon Grass Oil. | Oil of Verbena. ?

This plant is a native of Arabia, but is now cultivated in the West Indies, Ceylon, on the North of India, all over Burmah and in the Moluccas, and used for domestic purposes and in the medicine. It grows to a height of three or four feet, its stems infused as tea, or in decoction, are considered aromatic and stimulant and given in colic. Its oil is largely exported from Ceylon where it grows abundantly on the Ambulawe mountain, which overhangs Gampula on the road to Nawera Elia. Almost annually in the dry season, the plant is burned down, but the roots are uninjured and after a few days rain, young shoots burst forth.—*Sirr's Ceylon. Roxb. i.* 274. *Voigt.* 706: *O'Shaugh.* 639. *Bog.* 832. *Ainslie. Dr. Mason. Useful Plants Bombay Products.* See Oil: Thatching.

ANDROPOGON SERRATUS. Serrate Andropogon. Khura also Khurrar also Jeemoota, *Hind.* Grows in moist places in the plains, is considered the best grass at Ajmeer to preserve for cattle.—*Genl. Med. Top. p.* 167.

ANDROPOGON SORGHUM. BROT. Syn. of Sorghum vulgare. PERS. See Holcus sorghum.

ANDUGA TEL. అందుగ. Boswellia glabra, *R.* ii. 384.

ANDZIAN. A territory forming one of the boundaries of the lands of the Kirghis Cossaks. See Kirghis.

ANEESOON. انيسون ARAB. Pimpinella anisum, Aniseed.

ANEILEMA SCAPIFLORA. Moosli-siah. مصلي سياه HIND. Common in the Kheeree passhat; its roots are much prized by native practitioners.—Voigt. names A. herbaceum, nanum: nudiflorum and vaginatum brought from the genera, Commelina and Tradescantia of Linn and Roxb. Voigt. p. 677..

ANE'KAT'HALE, TAM. Agave Americana. *Linn.*

ANEM. అనెం. TEL. Bridelia. *Willd.*

ANEMONANTHEA. D. C. A genus of the Ranunculaceæ of which A. Falconeri and A. Griffithi occur in the Himalayas, Sikhim and Botan.—*H. f. and Th.*

ANEMONE, or the wind-flower, one of the Ranunculaceæ, contains acrid properties. Some species are cultivated in India as garden flowers, in rich loamy deep soil with much decayed manure. Anemone cernua, according to Siebold, is in high repute among the Chinese as a tonic bitter, under the name of Hak-too-woo—Mr. Fortune says that many species which he imported from China have found their way to the principal gardens in Europe, and when writing in 1846, he mentions that the Anemone Japonica was in full bloom in the garden of the Society at Chiswick, as luxuriant and beautiful as it ever grew on the graves of the Chinese, near the ramparts of Shanghae. Hooker and Thompson, name A. Albana of Central Asia: A biflora, of Baluchistan, Kashmir and Affghanistan A. rubicola of the inner Himmalayas, and Sikhim and A. vitifolia of the Himmalayas generally.—*Fortune's Wanderings, page* 405. *O'Shaughnessy, p.* 160. *Riddell. Hog. Vegetable Kingdom, p.* 14 *Hook. f. and Thom.*

ANEMONOSPERMOS. D. C. a genus of the Ranunculaceæ of which several species occur in Ceylon and the Himalayas. *H. f. and T. p.* 21.

ANETHUM GRAVEOLENS. *Linn.*

A. Sowa. *Roxb.*

Shabit	AR.	Sowa...	HIND.
Tsa-mou-h'pyu?...	BURM.	Sui-chuka... ...	„
Tsa-muot?	„	Jemuju?... ...	MALAY.
Anise of Matthew Dill	ENG.	Adas-manis?...	„
Anethon...	GR. of Diosc.	Anise...	„
		Sada kuppe... ...	TAM.

This plant grows in the south of Europe, in Egypt and Astracan. In India, dill water is a commonly used carminative for the relief of flatulence, flatulent colic, and the hiccough of infants; and may be advantageously combined with a few grains of magnesia or aromatic confection. In Pegu, dill seeds are constantly for sale in the bazars, The Burmese do not distinguish it from carraway.—The Hakeems of Northern India believe the use of dill seed promotes the secretion of milk.—*Honigberger. O'Shaughnessy. Mason.*

ANETHUM PANMORI, Syn. Fœniculum Panmorium.

Sonf : Panmhori, HIND.

A native of various parts of India, root white, nearly fusiform, and almost simple. Used in India as an aromatic in food and in medicine.—*O'Shaughnessy, page* 360.

ANETHUM SOWA. *Roxb.*

Syn.

Anethum graveolens. *Wall.*

Shabit...	AR.	Shatta-kupha...	MALEAL.
Sulpha, Sowa ...	BENG.	Sita Siva...	SANS.
Tsa Myeik... ...	BURM.	Missreya...	„
Sowa Dill	ENG.	Shaleya	„
Bishop's weed ...	ENG.	Satta-kuppa... ...	SINGH.
Suva...	GUZ.	Hinendura... ...	„
Soya	HIND.	Satha-kuppa... ...	TAM.
Sowa...	„	Saddapa...	TEL.
Shuta pusha... ...	„	Sopu Sompa... ...	„
Soie...	„	Shatha-kuppa... ...	„
Shuta puspha... ...	„	Pedda Sadapa Chettu	„

This plant is cultivated in the cold season in Bengal, in the Peninsula, Burmah &c. Its seeds are aromatic and carminative and used by the natives in their curbies and medicinally to relieve flatulence. The best form for adults is probably that of a few drops of the essential oil on sugar, or dissolved in spirit. By distillation the fruits of this and the next species yield a pale yellow volatile oil, sp. gr. 881, soluble in alcohol, ether, and in 144 parts of water.—*O'Shaughnessy, page* 366. *Bombay Products: Vegetable Kingdom,* 377. *Roxb.* ii. 96.

ANETHUM FŒNICULUM. Fennel. See Fœniculum vulgare.

ANGARAVALLI—*S.* అంగారవల్లి. literally Fire climber: Pongamia? Butea? Clerodendron.

ANGADA, the son of Báli, a fierce monkey chief, one of Rama's confederates.

ANGAHARAWA also **ANGAHARUWADA.** *Singh.* The planet Mars: Tuesday.

ANGAKARA GADDA. TEL. Momordica dioica.

ANGAMAN. A name of the Andamans? See Marco Polo.

ANGAME, a rude pagan tribe on the range of hills in upper Assam, on the eastern frontier of the Mikir and Cachar. They speak one of the Naga dialects. See Mozome; Kuki: India p. 339.

ANGAM or **ANGAR ISLAND,** adjoining the south side of Kishm about 5 miles long, in lat. 26 ° 37' N.—*Horsburgh.*

ANGAN. DUKH. انگن The open enclosure of a mahomedan or hindoo house. A small court yard.

ANGA, SANSC. The Anga and Upanga, *i. e.,* the sciences and secondary sciences subordinate to the Vedas, usually called Vedanga six principal ones are ennmerated, viz.

1. Pronunciation.
2. Description of religious ceremonies.
3. Grammar.
4. Metre.
5. Daily calendar.
6. Explanation of difficult words, etymology.

—*William's Story*. See Veda; Vidya.

ANGDES, Ongdes or Ondes, adjoins Thibet. The inhabitants call themselves Hoongia, and appear to be the Hong-niu of the Chinese authors, the Hun (Hoon) of Europe and India, which prove this Tartar race to be Lunar, and of Boodha. *Tod's Rajasthan, Vol. p. 136.*

ANGELICA ARCHANGELICA, of the north of Europe is grown in India as a flowering plant.

ANGELY, OR ANGILICA, according to Edye, the Malayalam and Tamil name of a tree which grows to two and a half and three feet in diameter, and from fifty to sixty feet high. He describes it as used for large canoes and snake-boats, and, if kept oiled, as very durable. Also, as used for planks, for native vessels, in consequence of its being very tough, and well fitted to hold the yarns where the planks are sewed together, which is the case with all the flat bottomed boats on the coast, where there is a surf on the beach, as at Madras, for the massula boat; at Mangalore and Calicut, for the manchee boats, &c.; and many of the pattamahs are fastened by paddings of coir on the joints of the planks &c. Its Tamil synonim seems to be Assanpela maram. Dr. Wallich names the Angelly wood, the Artocarpus hirsuta, and it is described in Useful Plants as A. hirsutus. Lam. *Eyde, Malabar and Canara.*

ANGHRIPARNIKA—S. అంఘ్రిపర్ణిక Uvaria lagopodioides. *D. C.*

ANGIA CHINENSIS. a tree of China and Siam, produces a varnish.

ANGILICA. See Angely.

ANGIRA, *i. e.* Charity, in hinduism, one of the ten men created by the united powers of Brahma, Vishnu and Rudra, the ten were

Puluha or Pride		Nareda or Reason	
Pulastya	... Patience	Daksha	... Ingenuity
Angira	... Charity	Vasishta	... Emulation
Atri	... Deceit	Bhrigu	... Humility
Marichi	... Morality	Critu	... Piety

SEE Brahmadica.

ANGIRASA. A gotra or family of brahmins derived from the Rishi or sage Angirasa.

ANGLO-SAXON, a branch of the Arian race, who settled in Britain. Amongst the Arians who went to the north west, the Saxons not uncommonly immolated captives in honour of their gods, but they seem to have ceased to do so after their settlement in great Britain. See Aryan. Sacrifice.

ANGOLA WEED. Ramalina furfuracea. See Dyes.

ANGOLAM. MAL. Alangium decapetalum: A. hexpetalum.

ANGOORER-GACH, BENG. Vitis vinifera: Vine.

ANGU. MALAY. Asafœtida.

ANGUILLIDÆ. See Murænidæ.

ANGULAR LEAVED PHYSIC NUT. Jatropha.

ANGOSTURA BARK, ALSO CUSPARIAN BARK, is obtained from a south American plant, the Galipea cusparca. It is imported into India, as a tonic medicine.—*O'Shaugh.*

ANGUZA. PERS. انگوزه Asafœtida.

ANI. TAM. ஆனை Elephant.

ANGRIA, about the middle of the 17th century, Kanojee Angria, who had been a Mahratta soldier, was made governor of Severndroog. He soon assumed independence, obtained possession of nearly all the Mahratta leet, and conquered territory on the mainland. He even took vessels of war, belonging to the English, French and Dutch. Against his successors Tulji Angria, in 1754, the Bombay Government failed in an expedition, which hey sent out, but Severndroog was subsequently reduced by commodore James. Though up to his time, they had swept the Indian seas with impunity.

ANGULI TORANA TRIPUNDRA, a worshipper of Siva.

ANOLA. HIND. Myrobalan.

ANHILWARRA, the dynastic name of three races that ruled in Guzerat from A. D. 696 till A. D. 1309, when Guzerat was annexed to Delhi by Ala-ud-din Mahomed Shah. The name of these dynasties was taken from the town Anhilpoor, which rose to great distinction as a commercial site and with Cambay as its seaport, was the Tyre of India. At its height, Anhulpoor was twelve coss (or fifteen miles) in circuit, within which were many temples and colleges; eighty-four *chaoks*, or squares; eighty-four bazaars, or market-places, with a mint for gold and silver coin. Col. Tod thinks it not unlikely that the *Chaora*, the tribe of the first dynasty of Anhulwarra, is a mere corruption of *Saura*; as the *ch* and *s* are perpetually interchanging. The Mahrattas cannot pronounce the *ch*; with them *Cheeto* is *Seeto*, &c. The Saura princes of Deo and Somnath, he thinks, in all likelihood, gave their name to the peninsula of Guzzerat.—*Tod's Travels, p.* 147, 152, 156. *Tod's Rajasthan, Vol.* 1, *p.* 31. See Guzerat; Kalmuk; Kattywar:

ANIMAL CHARCOAL prepared from bones, is used to a considerable extent in India as a filtering material, for clarifying oils, and in the processes of sugar refining. When pur it should not effervesce on the addition of muriatic acid.

ANIMAL FOOD. Its use is not absolutely forbidden to the priests of Buddha and the followers of this faith use enormous quantities of fish, reptiles and crustacea. Even the more strict of them, though they may refuse to take life for food, eagerly use meat, when they can get animals killed for them or find them dead from accident or disease, and the cow, buffalo, tiger and horse, are all used in *Burmah, tiger flesh* selling for five annas a pound. The hindu brahman, rajput and vesya, as a rule, will not eat animal food, and no hindu can eat the cow without ceasing to be of the four hindu castes but all sudra hindus eat goats, fowls, mutton, and the servile pariah races eat nearly all quadrupeds.—*Hyder. Ed.*

ANIMAL OILS are in frequent use, as medicinal substances, amongst the people of India, for external application : such as that from the pea fowls fat, from the neuts foot, the crocodile and the iguana.

ANIME, a gum resin, imported to some extent into India and China. It is the product of the Hymenæa courbaril, the Courbaril locust tree, of South America, which has been introduced from South America, into the Tenasserim Provinces and is easily propagated. This gum resin is of a pale brownish colour, and is met with in commerce partly in translucent and somewhat unctuous grains or tears, and partly in large brittle masses. But the commercial article is doubtless the product also of the Vateria indica or Gum copal tree, and the V. Roxburghii, which yield almost a precisely similar resin. For ordinary purposes, these may be used indifferently; but where purity is demanded, copal is almost insoluble, while anime is wholly soluble in alcohol.—*Honble. Mr. Morrison's, Compendious Description, Drs. Mason : O'Shaughnessy, Faulkner. Vegetable Kingdom* 287. *Poole.* See Vateria, Gums and Resins.

ANIMISHA. SANSC. The hindu gods are supposed by the hindus to be exempt from the necessity of winking their eyes. Hence a deity is called *Animisha*, one whose eyes do not twinkle. There are other marks which distinguish divine from mortal b[illegible]. They cast no shadow, they are exempt from perspiration, they remain unsoiled by dust, they float on the earth without touching it, and the garlands they wear stand erect, the flowers remaining unwithered.—*William's Story of Nala, p.* 248.

ANIMUS, LATIN, the breath of life breathed into man's nostrils, is the Rauch of the Hebrews, the Ruh of Arabia, and among the Greeks, Animus, Anima and Spiritus being the terms amongst the Romans. In their designation of the various prophets, mahomedans style Moses the Kalam-Allah, the word of God. Abrahim the Kalil-al-Allah, friend of God, and Jesus Christ is the Ruh-Allah, the Spirit of God. In this view, it identifies the everlasting soul, with the Holy Spirit and the breath of life. The New Testament indicates three, soul, spirit, and life, but in English there is no settled mode of speaking of these three, for a man is said to die; in a shipwreck, every soul is said to perish, and a person ceasing to live is described as departing, the mahomedan passing away and departure.—*Ed.*

ANI-PIPUL. DUKH. انی پیپل Ficus religiosa.—*Linn.*

ANI POOLIA MARM. TAM. Adansonia digitata.

AN-IRAN, the non Arian people. See Cyc.

ANIS. HIND. Adhatoda vasica.

ANISAROOLY MARA. CAN. Alangium decapetalum.

ANISAY. TAM. (qu. Avisay) Agati grandiflora.

ANISEED. ENGLISH.

Aneesoun ...	... AR.	Sonf...	... HIND.
Kadis-Manis? ...	BALI.	Anise ...	... IT.
Mahori .. - ...	BENG.	Andis-manis ? ...	JAV.
Tsa-moun tsa bah	BURM.	Mungfi...	... ,,
Anys ...	... DUT.	Pimpinella anisum.	LAT.
Anise ..	... ENG.	Anisum	
Common Anise ...	,,	Jira-manis ...	MALAY.
Aniseed...	... ,,	Razian-i-rumi	PERS.
Sonf...	.. DUK.	Anis,...	PORT.
Graines d' Anis ...	FR.	Sataphaspha	SANS.
Anis ...	... GER.	Sombu ...	TAM.
Anison ...	... GR.	Pedda Sadapa	TEL.
Anisa ..	... GUZ.	Sompu ...	... ,,
Anisi ?? ...	.. HIND.		

The plant producing these small, aromatic, pungent, fragrant, sweetish seeds, is the Pimpinella anisum of the Apiaceæ of Lindley which is cultivated in the Levant, all over Europe and in China. They are an agreeable carminative and yield on distillation a volatile oil, and a fixed oil by pressure, England takes about 50 tons at 35*s.* to 50*s.* the cwt. The Bali, and Javanese terms may possibly designate the Star Anise.—*Voigt*, 21. *Vegetable Kingdom* 376. *O'Shaughnessy* 358. *Drs. Riddell, Mason, Faulkner, Poole.*

ANISEED-TREE. ENG. Illicium anisatum.

ANISEED OIL. Oil of fruit of Pimpinella anisum.

ANICUT. Tamil: literally dam-built, a name given in Southern India to a dam or weir thrown across a river to dam up the water. The grandest is that across the Godavery river, about seven miles long, but others dam up the waters of the Kistnah, the Palar, the Coleroon, the Toomboodra and the Pennar.

ANI-GUNDAMANI MARAM. TAM. Adenanthera pavonina. Its seeds are the muni.

ANIL. PORT. SP. Indigo.

ANIM. See Dyes.

ANIMALLY, literally elephant hills, a mountain tract in the collectorate of Coimbatore, in the southern part of the peninsula of India. The mountains are covered by valuable forest trees, which at one time were worked with an annual profit of about Rs. 50,000, and there are many beautiful woods suited for turnery. The wild animals are the elephant, tiger, leopard, bear, hyena, wild dog, bison, sambur, spotted and barking and hog deer: also the wild goat. They are occupied by a race of hill-men the Karder, open, independent, straight-forward men, simple and obeying their Mopens or Chiefs implicitly. They are strong built, active, with woolly hair and something of the African features, and file their front teeth to a point. The women wear enormous circles of pith in the lobes of their ears, which they distend down to their shoulders. A black monkey is their greatest dainty.—*Lt. Col. Hamilton, in literis.*

ANISE, STAR. Illicium anisatum.

Badian-i-khatai, AR.	PERS.
Pa-co hu huei hiam	CHIN
Chinese Anise ...	ENG.
Star " ...	"
Anas phul ...	DUK.
Badian... ...	HIND.
Skimmi... ...	JAP
Adas Manis.	MALEAL.
Badian-i-khatai	PERS.
Anasipu ...	TAM. ? TEL.

The Star Anise is the fruit of the Illicium anisatum of Linnæus, a shrub or small tree, which grows in several places in the South Eastern parts of Asia, in China, Japan, the Philippines, and the countries extending from China to Japan from 23½° to 35 N. L. The name is given from the clustering star like form assumed by the capsules or pods, five to twelve in number, joined together at one end and diverging in rays, generally five. These are used all over the East, as a condiment. They are prized for the volatile oil obtained from them, and for their aromatic taste. The barks have a more aromatic flavour than the seeds, but they are not so sweet. In China, their most common use is to season sweet dishes: In Japan they are placed on the tombs of friends and presented as offerings in the temples. They are chiefly exported direct to India, England, and the north of Europe, at the average value of 8½ dollars per picul. In 1850, 695 piculs were exported from Canton, valued at 8,200 Spanish dollars. In India they are much used in seasoning curries and flavouring native dishes, and large quantities are used in Europe in the preparation of liqueurs. 3,000 piculs of anise are exported annually from Cambodia, and, in 1848, 81 piculs of oil of Aniseed, valued at 11,900 dollars were exported from Canton. In preparing a spirit of anise, the Star Anise, may be used instead of common anise. In England, it is from this fruit that the oil of anise is prepared, and it imparts the peculiar flavour of the Anisette de Bourdeaux.—*Morrison. Simmonds. Faulkner. O'Shaughnessy. Beng. Phar. p. 421. Vegetable Kingdom 23.*

ANISOCHILUS CARNOSUM. *Wall.*

Syn.

Lavendula carnosa. *Linn.*
Plectranthus carnosus. *Sm.*
P. dubius. *Spr.*
P. Crassifolius. *Hort.*
P. Strobiliferus. *Roxb. iii.* 23.
Coleus spicatus. *Benth. W. J. Rh.*

Thick-leaved Lavender... ...	ENG
Litaki-pangeri...	DUK.
Kat-karka...	MALEAL.
Karpurawalli ...	TAM.
Karruwalli ...	TEL.
Pindi banda ...	"
Pindi bonda	"
Roga chettu ...	"

Of this genus of the Lamiaceæ, Voigt only gives this species, but Wight also figures A. albidum, A. dysophylloides, A. purpureum, and A. suffruticosum. It is used in native medicine. It has small bluish purple flowers and grows among the Circar mountains and at Taong Dong.—*Roxb. iii.* 23. *Voigt.* 450. *Ainslie. Useful Plants.*

ANISOMELES MALIBARICA *R. Br.*

Syn.

Nepeta Malibarica. *Linn.*
Stachys " *Sieb.*
Ajuga fruticosa. *Roxb. iii.* 1.

Gao-*Z*aban of	BOMBAY.
Bootan Koosham.	SANSC.
Pema-ratti... ...	TAM.
Retti Pema-retti.	"
Madheri.. ...	TAM.
Moga biraku ...	"
Chinna ranabheri.	TEL.

A plant with a very fetid odour, of the West Indies, Mauritius, the peninsulas of India and of Malacca and Java. In the W. Indies, the entire plant is deemed emenagogue and natives of India use the leaves internally in dysentery. —*Voigt.* 460. *O'Shaughnessy* 482. *Vegetable Kingdom.* 578. *Ainslie. Roxb. iii.* 1.

ANISOMELES OVATA, *R. Br.*

Syn.

Anisomeles disticha. *Heyne.*
Ajuga " *Roxb. iii,* 2.
Ballota " *L. Mant.*
Nepeta " *Bl.*
" Amboinica. *Linn.*
Marrubium Indicum. *Burm.*
Ballota Mauritiana. *Pers.*

A plant of Ceylon, peninsular India, Bengal and Nepaul, with a strong camphoraceous smell. —*Roxb. iii,* 2. *Voigt.* 460.

ANISOPHYLLUM ZEYLANICUM.

Welipiyanna. *Singh.*

A tree of the western and northern parts of Ceylon, its timber is used for common house building purposes. - *Mendis.*

ANNESLEA FRAGRANS. *Wall,* a Moulmein tree with small whitish yellow fragrant flowers.—*Voigt.* 91.

ANISONEMA MULTIFLORA. R. W. Syn. of Phyllanthus multiflora, Willd.

ANISU. Guz. ANISUM. Lat. ANISUN. Arab. Hind. Pers. انیسون Pimpinella anisum. Aniseed.

ANYANKA BHIMA, a prince celebrated in Orissa. He unfortunately killed a brahmin and he raised numerous temples in expiation. He also endowed Juggurnath (Jogha-natha). See Inscription. p. 380. Cy. of Sup. Ind.

ANIYATA-DHAMMA, a class of priestly misdemeanours, of the buddhists of Ceylon.—*Hyder's Eastern Monachism. p.* 433.

ANJALI Sans. One of the hindu forms of respectful obeisance, it is the Dandawat of the South of India. The head is slightly bowed, the palms of the hands are brought together and raised laterally to the middle of the forehead, so that the tips of the thumbs only are in contact with it.—*Hind. Theat. Vol. ii. p.* 108.

ANIZEH, a tribe of Arabs, who are of the very ancient Khazerij or Khezerj Arab tribes.

ANKAL-AMMA, one of the village gods of the peninsular of India.

ANJANA, grandfather of Gautama. See Burmah.

ANJANA-KAHLOO also UNJUNCLE. Tam. Antimony.

ANJA[illegible] a part of Cutch.

ANJA[illegible]ISI. See Hindoo.

ANJ[illegible]DEPA, an Island 2 miles off the [illegible] in lat. 14° 45' N. about a mile long.—[illegible]*urgh.*

ANJIR. Pers. انجیر Figs.

ANJELIE. Eng. Tam. Artocarpus hirsuta.

ANJENGA or ANGINTENGA, on the Malabar Coast, in lat. 8° 89½ N. Long. 76° 45' E. The word is a corruption of the two Tamil words unjee taynkul or five cocoa trees. The place was for many years an English factory and of some note in former days. It is now desolate and deserted. The ruins of the Portuguese church and fort, still exist. Orme, the Historian, was born at Anjengo. —*Forbes' Oriental Memoirs, Abbe Raynal's History of the Indies.—H. Drury, Cochin. Horsburgh.*

ANJOWN.? Hind. Bishops' Weed.

ANJUN. Mar. Hardwickia binata.

ANJUNA also KURPA. Mar. Memecylon tinctorium.

ANJURU, అంజూరు. Ficus carica, L.—*R.* iii. 528.

ANKADOSA. అంకదొస. Leea staphylea; *R.* i. 658.

ANKER. Ger. Anchor.

ANKERBOYEN. Ger. Buoys.

ANKLETS. English.

Khal-Khal. خلخال Arab. Hind.	Kapu... ... Tam.
	Karyalu... ... Tel.

Anklets of gold, silver, brass, copper, deer horn, the metals being solidly massive and as chains, are in use in all eastern countries, amongst hindus and mahomedans. Occasionally a grown man of the hindus may be seen with a small gold or silver ring but in general they are restricted to women and children. The custom has doubtless been through all ages, and they are alluded to in Josh. xiii, 16: Is. iii, 16 and 18. In some cases those of some of the hindus are inconveniently massive, and heavy rings, usually of silver set with a fringe of small bells, are often worn by hindu ladies. Allusion is made to a tinkling with the feet. Hindoo women wear loose ornaments one above another on their ankles, which, at every motion of the feet, produce a tinkling noise. *Toy Cart.*

ANKLONG, the musical bamboos of Java.

ANKOBAR, described by Dr. Kirk in journey from Tajoura, *Lond. Geo.—Trans.* 1842. *Vol.* x. See Kirk.

ANKOLAMU—S. అంకోలము. Alangium decapetalum, *Lam.—R.* ii. 502.—A. hexapetalum.

ANKOOS. Pers. Hind. آنکس Ankasa, Sansc. Arpe. Greek: Cuspis, Latin: Hendoo, Singh. The goad and guiding rod of an elephant driver, in shape resembling a small boat-hook. It is figured in the medals of Caracolla of the identical form in use at the present day in India.

ANKO-RUTE. Tam. ஆன்-றட்டை. Trichosanthes palmata. *Roxb.*

ANMAIL. Tam. Pavo cristatus.

ANNA, an East Indian coin, sixteen to a rupee and equal to about three half pence. Eng. See Fanam. Ganda.

ANNA BUGDI. Tam. Green copperas.

ANNAI KARAI MARAM, also OADDY MARAM. Tam. Odina woodiar.

ANNANAS. Guz. and Hind. آنناس Pine Apple.

ANNA PURNA DEVI, a goddess in hindu mythology. In the modern representations of this beneficent form of Parvati, she is described as of a deep yellow colour, standing, or sitting on the *lotus*, or water-lily. She has two arms, and in one hand holds a spoon, in the other a dish. In her dress she is decorated like the other modern images of Durga. Anna Purna is a household goddess, and is extensively worshipped by the hindus. Her name implies the goddess who fills with food, and they believe that a sincere worshipper of her will never want rice. She is possibly the Anna of Babylon and she has been considered as the prototype of the Anna Perenna of the Romans, whom Varro places in the same rank with Pallas and Ceres, and who was deified and held in high esteem by the Roman people, in consequence of having supplied them with food when they retired into Mount Aventine. Besides the great similarity of names, there is a singular coincidence in the times of their worship, the festivals of Anna Purna taking place in the early part of the increase of the moon in the month Choitru (partly in March,) and those of the Roman goddess on the Ides of March. In India, she is known simply as Anna, also as Anna Purna, or Anna Devati. In his hymn addressed to her by the Rishi Agastya, she is personified as Pitu or material food. ANNA PURNA is SANS. from ănnă, food, and pōōrna full. Another word is ănna, food, and prashana, feeding. See Cyc. of Ind. Supp. ii. Art. Hindu. p. 263: Inscriptions 376. Colem. Myth.

ANNASO. IT. Pine Apple.

ANNEE, a Tibetan nun.

ANNELIDA, of Cuvier, from annulus a ring, as an example of which the ringed form of the common earth worm may be indicated. The leeches, the Hirudinidæ, are numerous throughout the hot moist parts of Asia. The Planaria also occurs, near Madras.—*Eng. Cyc. Mad. Lit. Journ.*

ANNESLEYA HORRIDA,

JUWUR KASHM.

This plant is common in the lake of Kashmir. Its broad round leaf lies on the water like that of the lotus, its under surface being covered with numerous hard, sharp and hooked spiculæ. —*Adventures of a Lady in Tartary. Mrs. Harvey. Vol.* 1, *p.* 238.

ANNESLEYA SPINOSA. *Roxb.* Syn. of Euryale ferox. Salisb.

ANNESLEY, DR., afterwards Sir James, a medical officer of the Madras Army who rose to be the head of the Medical Board. Author of Remarks on the diseases of India, Lon. 2 vols. 8vo.—Description of Indian diseases, 1 vol.—*Dr. Buist's Catalogue.*

ANODA, a genus of the Malvaceæ of which A. acerifolia, Dilleniana, hastata and triangularis are mentioned, formerly placed under the genus Sida.—*Voigt.* 115.

ANOGEISSUS ACUMINATUS, *Wall.*

Conocarpus acuminatus, *Roxb. ii.* 443.

Pachi manu. ... TEL. | Pauchi manu... ...TEL.
Pashi. .. „ ... „ |

This tree is met with in several parts of India. Its timber is good, durable, and fit for house building purposes. That from the Godavery is described as a very hard strong timber.—*Roxb.* ii. 443. *Voigt. Captain Beddome.*

ANOGEISSUS LATIFOLIUS. *Wall.*

Conocarpus latifolius, *Roxb.* ii. 442.

Sheri manu... ... TEL.

This timber tree grows at Chillau Islamabad, in the Kennery jungles, the valleys of the Concan rivers near their sources, the inland Dekhan hills, and in the Dehra Dhoon. The timber, if kept dry, is good and durable. Near the Godavery, the wood is said to be one of the hardest in the forests. It grows to an enormous size. Axles of carts are generally made of this wood. *Roxb.* ii. 442. *Voigt.* 38. *Captain Beddome.*

ANOINTING, a form of installation, which is practised in England but seems to have been of Eastern origin, derived perhaps from the Assyrians. It is the "*masah*" مسح of the Arabs, hence the hebrew Messiah. In Rajputanah "*anointing*" appears to have been, in all ages, the mode of installation. The unguent on this occasion is of sandal-wood and *atr* of roses made into a paste, or very thick ointment, of which a little is placed upon the forehead with the middle finger of the right hand, and then the jewels, the aigrette and necklace are tied on. Amongst the earliest notices of this ceremonial is that in Genesis xxviii. when Jacob rose up early in the morning, and took the stone that he had put for his pillow, and set it up for a pillar, and poured oil upon the top of it. The bramhuns anoint thei[redacted]e images with oil before bathing, a nt them with sweet-scented oil. robably arises out of the customs os, and is not necessarily to be refe o their idolatry. Anointing *persons*, as an act of homage, has been transferred to their idols. There are resemblances betwixt the Jewish and hindoo methods of and times for anointing. Oil is applied to the crown of the head, till it reaches all the limbs, it is called abhyanga, which is noticed in *Psalm.* c. xxx. iii. 2. 'It is like the precious ointment upon the head, that went down to the skirts of his garment.' Again, we are told in *Mark* xiv. 3, that there came a woman, having an alabaster box of ointment of spikenard, very precious; and she brake the box, and poured it on his head; and pouring sweet-scented oil on the head is common amongst hindus. At the close of the festival in honour of Doorga, the hindoos worship the unmarried daughters of bramhans, and amongst other ceremonies pour sweet-scented oil on their heads. Amongst the hindus, the ceremonial is attended to after sickness, which *Psalm* xiv. 7, mentions thus: 'the God hath anointed thee with the oil of gladness.' And hindus, fasting, in sickness, or sorrow, abstain from the daily anointing of the body with oil, and again anoint on recovery as 2 *Samuel* xii. 20, where 'David arose from the earth, and washed, and anointed himself, and changed his apparel, and came into the house of the Lord, and worshipped.' Bathing, anointing the body with oil, and changing the apparel, are, among the Hindoos, the first outward signs of coming out of a state of mourning, or sickness.—*Tod's Rajasthan, Vol.* ii, *p.* 568.

ANOLA, HIND. آنولا Fruits of Emblica officinalis, the Emblic Myrobalan or Phyllanthus emblica. It is roundish, blackish, grey, very wrinkled, obscurely six-sided ; nut three-celled, each shell with two shining seeds—*O'Shaughnessy.*

ANOMADASSA, according to the Singhalese buddhists, a Budha previous to Gotama. —*Hyder's Eastern Monachism, p.* 433.

ANONACEÆ, a tropical order of plants, chiefly inhabiting America and the East Indies. The order includes about 15 genera and 250 species, more than half of which occur in India.

Uvaria...	... 42	Unona...	... 23
Guatteria...	... 17	Artobotrys.	... 5
Orophœa...	... 2	Palyalthia...	... 1
Miluisia...	... 1	Hyalostemma ...	1
Lobocarpus.	... 1	and	
Pattonia. .	... 2	Saccopetalum. ...	1

Hooker and Thomson describe 123 species. They are all trees or shrubs, with a powerful aromatic taste and smell, furnishing esteemed edible fruits, of which the custard apple, soursop, sweet sop, and bullock heart may be named.—*Voigt,* 13. *H and T.*

ANONA CHERIMOLIA. MILL. A tree of Peru, with a succulent fruit of a dark purple colour containing a soft sweet mucilage, and much esteemed by the Peruvians. It was introduced into India in 1820.—*Riddell. Voigt,* 14.

ANONA MURICATA, *Linn.* The Soursop tree of the West Indies is cultivated in India, and Tenasserim, and has large yellowish green flowers with a vinous smell. The fruit, resembles the custard-apple, ripens in March, and bears only once a year. It grows to about the same size as the bullock heart, is of a greenish colour when ripe, and has a rough thorny appearance : the flavour is very peculiar, differing from the other species of the Anonaceæ ; the scent resembles that of black currants ; the seeds are similar to those of the custard-apple. The wood is inferior.—*Riddell. M. E. Juries' Reports. Voigt,* 14. *Hook. f. et T. p.* 114. *Vegetable Kingdom,* 28.

ANONA RETICULATA. *Linn.*

Luvuna ?	BENG. HIND.	Manna ...	...MALAY.
Nona... ...	„ „	Rama Sita ...	... SANS.
Nona...	ENG.	Anona... ...	...SINGH.
Bullock Heart ...	„	Rama Sita maram.	TAM.
Netted Custard apple	„	„ „ chettu...	TEL.
Ram-Phal,	DEKH. HIND.	Rama chettu	„
Nona	MALAY.		

This fruit tree derives its specific and English names from the appearance of its dark brownish and red fruit. It is to be met with in all parts of the tropics and grows to a large size. It ripens in the autumn, but it is soft sweetish and pulpy and is not much esteemed by Europeans.—*Ainslie,* 232. *Drs. Riddell and Mason. Bombay Products. M. E. J. Reports. H. f. et Th.* 115. *Crawfurd's Dictionary.*

ANONA SQUAMOSA. *Linn. Roxb. ii,* 657.

Shueifa...	AR.	Sri Kaya ...	...MALAY.
Luna...	BENG.	Manoa...	„
Meba...	„	Att'ha mara ..	MALEAL.
Ata ?...	„	Sri-kaya ?... ...	„
Ame-sa	BURM.	Auta-chicha ...	„
Au-za	„	Auta-chika ...	„
Na-nat ?	„	Sita	SANS.
Sita Phal	DEKH.	Ganda-gutea ...	„
Sweet Sop	ENG.	Atta	SINGH.
Custard apple ...	„	Siri Kaya	SUM.
Manoa-papoa ..	MALAY.	Sita pallam ...	TAM.
Buwah-nona ...	„	Sita ph'allam ...	TEL.
Nona	„		

This small tree with its delicious fruit, grows freely, even wild, in tropical parts of the south-east of Asia, though originally from tropical America. It grows wild near Hyderabad in the Dekhan. The fruit is wholesome and pleasant, and being perfectly free from acid may be given to such delicate people as dare not venture on others of a different nature. It is delicious to the taste, and on occasions of famine, has literally proved the staff of life to the natives. It was cultivated in Pegu in the Burmese time to a great extent, and with much success, on the slopes of the hills about Prome on both sides of the river. Since British occupation of the country, these plantations have fallen into neglect, and supplies of the fruit are furnished to a much more limited extent, as the plants now receive no care ; the fruit will soon become scarce. This and similar sub-acid fruits form a considerable article of food to the Burmese, to whom they serve as a substitute for flesh-meat, being eaten with rice as an ordinary article of their daily provisions. The tree when cultivated and pruned during the hot season, produces fruit afterwards of double the usual size. The leaves have a disagreeable odour, and the seeds contain an acrid principle fatal to insects, on which account the natives of India use them powdered and mixed with the flour of gram (Cicer arietinum) for washing the hair." A few leaves and some seeds put into a bed infested with bugs have been said to dispel these pests immediately.—*Royle. Gibson. &c. quoted in Useful Plants. McClelland. Riddell. Crawfurd.—Ainslie, p.* 232.—*Malcolm's Travels in South Eastern Asia, V.* 1. *p.* 180. *Voigt,* 14. *Hook. f. et Thomson* 115. *Cal. Cat. Ex.* 1862. *Bombay Products.*

ANORATHA, also called ANORATHA SAUMEN. He established buddhism at Pagau in Burmah, and built all the temples there.—*Fule p.* 9. See Pagan.

ANŒTOCHILUS SETACEUS. Wanna Raja, Singh, king of the forest. A Ceylon Orchid.

ANOU, SUMATRAN. Gomuto.

ANS. HIND. Terminalia tomentosa. *W and A.*

ANS, a tribe of Arabia in the time of Mahomed. See Aswad.

ANSA, SANSC. Portion.

ANSANA, SANS. Portion of a portion of Krishna, as Paramatma, or supreme spirit. See Chaitanya.

ANOSPORUM MONOCEPHALUM. *Nees,* one of the Cyperaceæ, is Roxburgh's Cyperus monocephalus and the Gothoobi of Bengal.

ANSER, the goose, the hans of India, of which species A. Cygnoides : A. Cinereus : and A. brachyrynchus are known in India and the Punjab. Dr. Hooker mentions that A. Indica occurs at Siligori. The domestic goose of India is a hybrid between A. Cygnoides and A. Cinereus.—*Hooker's Him. Journ : Vol.* i, *page* 399. *Catal. Cal. Museum.* See Cygninæ. Goose.

ANSER CYGNOIDES, see Pelicanus inflatifrons.

ANSTRUTHER, C. B., Major General Philip, of an old Scottish family, an officer of the Madras artillery from 1825 till his retirement from the service. His chief efforts in early life were directed to the introduction of iron gun carriages, to the reduction of the weight of guns. He joined the army engaged in the China war of 1841 and at Chusan was taken prisoner by the Chinese and detained for six months. Was at the taking of Amoy, re-capture of Chusan ; the battle of Chin-hæ, the attack on Woosung, at Chapoo, Ningpo, Tsekee, Shanghæ and Chinkiangfoo. He served as Lord Gough's aid-de-camp at the battles of Chillianwallah and Goozerat, and subsequently under Sir Harry Smith in Kaffirland. He subsequently served under Sir Scudamore Steel, K. C. B., in the second Burmese war.

ANSUS, [illegible] of [illegible] the Eastern Archipelago, [illegible] an island [illegible] Iaris, inhabited by Papuans. Their houses, built on posts, are placed entirely in the water. At very low water only is the beach partially uncovered. This beach consists of mud, in which the mangroves grow luxuriantly and completely obstruct a landing. The gardens from this cause, are situated on the surrounding islands, principally on an island with a high beach lying opposite to the kampong. The Ansus Papuans wear their hair in tufts. Their appearance is good natured, faces regular, eyes beautifully black, the mouth broad with beautiful regular teeth, and the forehead high but narrow. Many have thin lips and finely curved noses, which give them a more European physiognomy. The men are generally handsome and well formed, stout, without being too thick, strong and muscular ; the women very good looking ; and some children with very regular soft faces, and long pendant curling hair.—*Journal of the Ind. Arch. June* 1852, p. 330-1-2 and 3. See Abeta : Papuan.

ANT. ENG.

Cheonti	HIND.	Irmbu ...	... TAM.
Formica	LAT.	Chima ...	... TEL.
Lamut	MALAY.	Neml.	TURK.

Ants have attracted attention from the earliest ages, on account of the singular economy and extraordinary industry, manifested by the different species. This has been more particularly the case in the colder countries of Europe, for of the numerous races of the South East of Asia, not one takes any interest in the field matters of natural history. It is probable that numerous ants will be discovered. Mr. Jerdon, a Madras Medical Officer, in a series of papers in the thirteenth volume of the Annals of Natural History described forty-seven species of ants in Southern India. But M. Nietner of Ceylon recently forwarded to the Berlin Museum upwards of seventy species taken by him in that island chiefly in the western province and the vicintty of Colombo. Mr. Jerdon in the Madras Lit. Soc. Journal gives the following species found in Southern India, he arranges them according to St. Fargeau, who, in the 1st volume on the Hymenopteres in the Suites a Buffon, divides ants into four tribes, viz :—1st Tribe, Les Myrmicites, females with a sting. 1st segment of abdomen of 2 knots. This includes the following genera, 1st Cryptocerus. 2nd Atta. 3rd Ocodoma, differing from Atta in its larger head, and the presence of spines. 4th Eciton. 5th Myrmica. 2nd Tribe, Ponerites, females with sting. 1st segment of the abdomen of one knot only. It includes the genera Odontomachus and Ponera. —3rd Tribe, Les Formicites, females without a sting. 1st segment of the abdomen of one knot only, and it contains the genera *Polyergus* and *Formica.*—Many Indian ants cannot be well referred to any of these genera, but as it is probable that some new genera have been formed by recent writers, Dr. Jerdon, in general, contents himself with referring [illegible] of his species to one or other of those here characterized, and remarks, that following the arrangement of St. Fargeau, we have first the tribe of *Myrmicides* and the first genus mentioned by him. Cryptocerus, being American exclusively, we come to the genus *Atta* of Lattreille, from which St. Fargeau has separated *Ocodoma,* the chief distinction being the spines which exist either on the head or thorax of the latter, which moreover is said to have the head of variable size, whilst in Atta it is said to be usually not of a large size. We have in India species apparently belonging to both groups which he describes.

TRIBE, MYRMICIDES. Gen. *Atta*. He possessed 6 species of ants, all of small size, which appear to belong to this genus, having a sting, two knots in the first segment of the abdomen, antennæ not concealed in a cleft, thorax without spines, and short palpi.

Atta minuta, new species. *Worker* barely 1-12th of an inch long, head oblong. This minute species makes a temporary nest in various situations, in an empty box, between the back of a book and its leaves even among the loose pages of a book, in an empty shell, &c., &c. Nothing is used in its construction, a shelter from the light merely being sought for. It is not perhaps very numerous in individuals, one wingless female is generally found in the nest. It is very common in the Carnatic and most of India, but not seen in Malabar. It appears to prefer dead animal matter to saccharine or vegetable products.

Atta destructor, new species. *Worker* about 1-10th of an inch long, head oblong, not so long in proportion as in the last; eyes small, colour rufous, abdomen glossy brown. They live in holes in the ground, or in walls, &c., and are very numerous in individuals. They prefer animal to vegetable substances, destroying dead insects, bird skins, &c., &c., but also feed greedily on sugar. They are common in all parts of India, and often prove very troublesome and [illegible]uctive to the Naturalist.

Atta domicola, new species. *Worker* about 1-6th of an inch long, head oblong; eyes moderate size, head, thorax, and legs, deep red brown, abdomen blackish. This species of ant does not seem to be common, only hitherto procured at Nellore in a hole in a house, and only one kind of individual seen.

Atta rufa, new species. *Worker* 1-8th to 1-6th of an inch long, head short, oblong; eyes rather small, medial; of an uniform glossy rufous colour, with the end of the abdomen somewhat darker. *Warrior* variable, about $\frac{1}{4}$th inch long, head large, very square. Female about 7-24th of an inch long. It is very common in Malabar, also found in the Carnatic: in holes under ground, about gravel walks, mud walls, and often appears in houses, coming through a hole or crevice in the floor, or wall. From a colony of them, every now and then, vast numbers of the winged females (and males) issue forth just before sunset attended as far as the window by swarms of the neuters of both kinds. Its favorite food is dead insects and other matter, but it also carries off seeds like the Ocodoma, chaff, &c., &c. It stings very severely, leaving a burning pain that lasts for several minutes.

Atta dissimilis, new species. About 1-10th of an inch long, head oblong, abdomen long, oval, colour blackish throughout. This Ant found in small numbers on trees in Malabar.

Atta floricola, new species. *Worker* not 1-17th inch long; thorax and legs dark rufous, head and abdomen glossy dark brown. This very small ant, in small numbers on flowers and leaves at Tellichery, and it appears to feed solely on vegetable secretions.

Gen. Ocodoma. Ants extremely numerous over all India, and comprising several species very nearly alike and probably confounded together by many. Almost all the species have two kinds of neuters, one of them of very large size compared with the ordinary Workers, and which are usually called Warriors. Some points in the history of the food economy of these ants have caused much interest among Naturalists at home. The chief distinction of *Ocodoma* from *Atta* consists in the former having some small spines on the thorax.

Ocodoma Malabarica, new species. *Worker* $\frac{1}{8}$th of an inch long, head oval, eyes moderate, head, thorax and legs, rufous, abdomen blackish; legs long. *Warrior* $\frac{1}{4}$th of an inch long; head enormous, rugose, striated, deeply notched behind; eyes minute, antennæ, legs, and abdominal pedicles rufous, the rest of the body blackish. This species of Ant appears to form a link between the two Genera *Atta* and *Ocodoma*, as shown by the rudimentary state of thoracic spines; found chiefly about houses, it runs rapidly, lives also on insects and other animal matter, and on sugar, bread, &c.

Ocodoma providens. (*Sykes*)? *Worker* about $\frac{7}{8}$th of an inch long; head somewhat *ovate*, *bulging* slightly at the sides, and narrowed behind. *Warrior* with jaws pointed and finely toothed; thorax very rough; length $\frac{1}{4}$ inch, head large, otherwise similar. They live under ground, making, for their size, a large series of excavations. Their common food animal matter, dead insects, &c., &c., which they take readily, but they also carry off large quantities of seeds of various kinds, especially small grass seeds, and more especially cabbage, celery, raddish, carrot and tomato seeds, but are particularly partial to the light lettuce seeds, and in some gardens, unless the pots in which they are sown be suspended, or otherwise protected, the whole of the seeds sown will be removed in one night. Packets of seeds (especially lettuce) in a room will be completely emptied before aware that the ants have discovered them. They bring the seeds outside their holes, at the close of the rainy season, but in some cases merely the husks, quite in heaps. Their galleries and subterranean passages are often very extensive, and it is no easy matter to dig down to their nest to see what becomes of the seeds.

Ocodoma diffusa, new species. *Worker* about $\frac{1}{8}$th of an inch long; head somewhat oval, head, thorax and legs rufous; abdomen brown. *Warrior* $\frac{1}{4}$th inch long, jaw strongly toothed. This species appears to be spread over most of India, and has similar habits to the last.

Ocodoma diversa, new species. *Worker* about 7-48th of an inch long, head oblong, head, thorax and legs dark marroon, abdomen blackish. *Warrior* nearly ½ inch long, head very large, procured in the Wynaad where it is not uncommon. The difference between the *worker and the Warrior is greater than in any other* Indian species.

Ocodoma affinis, new species. *Worker* ⅛th of an inch long; head nearly square, almost smooth, of head, legs and thorax rufous; abdomen dusky. *Warrior* nearly 7-16th of an inch long. This ant is very common in Malabar; is nearly allied to, but differs from, *Ocodoma diversa* in the toothed jaws of the Warrior,' &c., &c.

Ocodomo minor, new species. *Worker*, length about 5-48th of an inch, entirely rufous, head oblong. Female 5-8th of an inch long, head, nearly square. On one occasion, only, found a single individual presumed to be the female, which had lost her wings, under a stone in a garden at Tellicherry, surrounded by numerous workers, who were busy tending her, and removing some eggs or larvæ. The female of this genus, is well characterized by its large eyes, and ocelli.

Ocodoma quadrispinosa. new species. *Worker nearly* 1-8*th of an inch long, head smooth; eyes small; head, legs, and thorax dark rufous, abdomen blackish brown; found during the* monsoon forming a small temporary mud abode round the head of flowers abundant in Malabar. It appeared to be feeding on the vegetable secretions surrounding the seeds. Of these seven species of Ocodoma, the first and last are very distinct from all the others, the first by having only rudimentary spines, and the last by having four spines instead of two. *Ocodoma minor* is readily distinguished by its smaller size; and the other four are most readily distinguished *inter se*, by the jaws of the Warriors, which in No. 10 is entire; in 11, with two teeth at each angle, in 9 with moderately strong teeth throughout its extent; and in 8, with the jaw very finely toothed.

Gen. Eciton. The characters of this genus are thus given by St. Fargeau. "Antennæ " entirely free, head elongated, and the thorax " without spines; maxillary palpi long, of 6 " joints; jaws linear; wings unknown."

Eciton? rufonigrum, new species. *Worker*, length about 11-24th of an inch; head square; thorax, legs, abdominal pedicles and antennæ rufous, head and abdomen black. This ant is very common in the Carnatic, less so in Malabar. It makes its nests in holes of trees, old palings, bamboo rafters and such like; it does not care for sweets, is never seen on flowers, but devours dead animal matter. It stings very severely.

Eciton nigrum, new species. *Worker*, length 9-24th of an inch, head long, eyes large. Colour uniform black. Female, length 11-24th of an inch, differs from the Worker only in having wings. This ant like the last is rare in Malabar, but tolerably common in parts of the *Carnatic; it has the same habits as the last*, living in holes of trees, &c., and feeds in the same manner. On cutting open a dead branch on which they had formed their nest, many winged females, and larvæ and pupæ were found in different states of development.

Eciton rufipes, new species. *Worker*, length 11-48th of an inch; head oblong; eyes very large, slightly advanced; abdomen black, with rufous legs; found this species on one occasion under a stone in the Salem district, and know not if it has the dendrophilous habits of the two last.

Eciton minutum, new species. *Worker*, about 1-6th of an inch long, black throughout, very slender; found both in the Carnatic and in Malabar, almost always on trees, but not known if it has its nest in holes of the wood or otherwise. Though scarce in individuals, it is by no means rare.

Gen. Myrmica. Gen: Char: Antennæ sufficiently exposed; head triangular, without spines; *maxillary, palpi long, of six joints: jaws triangular; three cubital cells in the upper wings; the third incomplete, &c.*

Myrmica diffusa, new species. *Worker*, rather more than 1-9th inch long; head and body rufous; abdomen dark glossy brown. Female—length 5-12th of an inch; wings not so long as abdomen. Male—head very small, eyes large; length 1-7th of an inch. A well known and widely diffused species, being found throughout India. It makes its nest in holes in branches of trees, runs with its abdomen turned upwards almost over its head, especially when excited, and feeds on honey and other vegetable secretions. Occasionally they appear to form their nest among the roots of moss, orchideæ, and various epiphytic plants; at least this is the case in Malabar. It is very pugnacious, and bites very severely, not appearing to use its sting much.

Myrmica rufa. *Worker*, length 9-48th of an inch, entirely a rufous colour. This is a very closely allied species, and is found in the same localities as the last. Its habits are similar.

Myrmica Kirbyii. *Sykes*? head, thorax and legs dark maroon; abdomen, dark brown. Length 7-48th of an inch; found chiefly in the elevated forests of the Wynaad. It forms a considerable nest of some papyraceous materials, usually of an oval form, and placed on a small branch which supports it. It is numerous in individuals, countless swarms issuing from it on being disturbed and boldly attacking the assailant both with teeth and sting. It feeds on honey of flowers and other vegetable secretions.

Myrmica fodicus, new species. *Worker*, length 4-12th of an inch; head, thorax, legs and abdominal pedicles maroon colour, abdomen shining brown. *Female*, head rather smaller proportionally. *This is one of the most common* and abundant ants in Malabar, not seen in the Carnatic. It seldom enters houses, but otherwise appears to take the place of *Fomica indefessa* which is not found in Malabar. It feeds chiefly on honey and other vegetable secretions, but also will take dead animal matter. It also occasionally feeds on the secretions of the…… …and is also found in the train of caterpillars feeding on leaves. It makes large excavations under ground, generally having the entrance round the trunk of a tree, and it forms considerable heaps of fine earth round the mouth of the nest. It runs, unlike the last species, with its abdomen turned downwards under the abdominal pedicles. It appears to form the type of a very distinct group from the last.

Myrmica ? tarda, new species. *Worker*, length 1-6th of an inch ; head, thorax, legs, abdominal pedicles, brick-red ; abdomen dusky, dark blue. This is a very curious looking ant. It is found both in the Carnatic and Malabar, [illegible] in holes in the ground in small societies, and *feeds on vegetable secretions. It* moves very slowly.

Myrmica ? cæca, new species. Ocodoma ? *Worker*, length 1-5th of an inch ; head, thorax, and legs reddish brown ; abdomen glossy brown; found once under a stone in the Wynaad.

2nd Tribe. Ponerites.

Odontomachus rufus, new species. *Worker*, length 1-4th of an inch ; head, thorax and legs rufous ; abdomen, dark brown. Obtained under stones in a jungle in the Salem district, also in the Wynaad, which may be the warrior of this species—if the society consist of different individuals. It is 11-24th of an inch long.

Harpegnathos, new genus. Gen : Char : Jaws scythe shaped, pointed, and finely serrated ; head oblong.

Harpegnathos saltator, new species. *Worker*, 1-6th of an inch long ; head long, head and abdomen blackish brown, thorax and legs rufous.—Length 3-4th of an inch. Seen in Tellicherry and in other parts of Malabar. Also found in the Mysore country, the name *saltator* from its power of making most surprising jumps which it does when alarmed or disturbed. It is very pugnacious, and bites, and stings very severely. It makes its nest under ground, generally about the roots of some plant. Its society does not [illegible] of many individuals. It appears to feed [illegible]ts, which it often seizes alive.

Gen. Ponera, Lat. Its generic characters have been given above.

Ponera zculpta. *Workers*, length from 5-17th of an inch to nearly ½ an inch. The commonest ant in Malabar, from the level of the sea up to the top of the Neilgherries. It lives in the ground in small societies, often making its nest in a flower pot, occasionally under a large stone. It does not work in concert, being *generally seen solitary. It lives on animal substances, but apparently will also take vege*table matter, and fight for a ripe seed of the Lantana.

Ponera stenocheilos, new species. *Worker*, length 3-8th of an inch ; legs long ; colour dingy greenish brown, very rare in Malabar.

Ponera processionalis, new species. *Worker*, length 1-3rd of an inch ; colour shining black, met over most of India. It lives in the ground in very numerous societies, is most frequent in jungly districts. Occasionally a vast column of them, 3 or 4 deep, may be seen crossing a road, and I have traced the column for 40 and 50 yards. It stings very severely.

Ponera affinis, new species. *Worker*, length 1-3rd of an inch ; abdomen oval, colour dingy black, procured once in Malabar.

Ponera rufipes, new species. *Worker*, length 9-16th of an inch : antennæ, legs, and end of abdomen dark rufous ; rest of the body dull black, procured on one occasion in Malabar.

Ponera pumila, new species. *Worker*, length about 1-5th of an inch : dull black, with rufous legs and antennæ, in Malabar, where it is rare.

3rd Tribe Formicites. The last family containing those ants that have no sting, and the abdominal pedicle of one knot only. It comprises two genera, Polyergus and Formica.

Gen. Formica. This genus comprises two distinct forms, the one with spines on the thorax, the other unarmed, which certainly ought to form two genera, inasmuch as this distinction is made to separate Atta from Ocodoma.

1st, without spines on the thorax.

Formica compressa, Fabr. ? Syn. F. indefessa, Sykes. *Worker*, length 4-10th to ½ an inch : legs rufous, the rest of the body black. *Warrior*, 6-10th of an inch long : *Male*, length 4-10th of an inch ; wings do not reach to end of abdomen. *Female*, 5-8th of an inch long ; this species, well known in India as the black ant, is found throughout every part of this country except the Western Coast. It is most probably the species described by Fabricius. It lives in very numerous societies in the ground, the entrance to the nest being often round the trunk of a tree, or close to some building. The Warriors are very numerous. Their food is chiefly vegetable secretions, sugar, &c., and Colonel Sykes has given an [illegible] account of the devastations com[illegible] on preserves, sugar, &c, They bite rather severely, but the pain is quite momentary. At certain times great numbers of the winged males and females are seen at the mouth of the nest, and they remain there for several days. When they take wing, they do so in vast numbers, and always at night.

Formica angusticollis, new species. *Worker*, ½ an inch long; colour dull black, with antennæ and legs rufous. *Warrior*, 8-12th of an inch long; only found in forests in Malabar, and always singly.

Formica smaragdina. *Worker*, length about 4-10th of an inch; colour of a uniform pale rufous. *Male* 7-24th of an inch long; of a rufous colour. *Female* 7-8th of an inch long; entirely of a pale shining green colour. This ant is well known in Malabar, and the wooded parts of India, but is rare in the Carnatic, where only seen in one or two large mango groves. It forms a nest of living leaves which it draws together without detaching from the branch, and unites with a fine white web; sometimes this nest is above a foot in diameter but usually smaller. The society consists of a vast number of individuals, and in large nests we find many females and males, both with and without their wings at all times of the year. They are very bold and pugnacious, and bite very severely. They live chiefly on vegetable secretions, and are very partial to the flowers and buds of some of the Loranthi, which abound on the Western Coast. They often form a temporary web round the flowers or sometimes round the fruit of various trees, viz. the Eugenia malaccensis, Artabotrys odorotissima, &c. apparently only for the purpose of feeding undisturbed, they will however also sometimes feed on decaying animal matter. It is said that the web they form is occasionally used for writing on in the N. W. Provinces of India, and that the Ants are made use of to destroy a nest of wasps that may have established themselves in a house. In this case they are said to destroy all the wasps but become so infuriated, that their own indiscriminate attacks are nearly as bad as those of their foes. In gardens they are most partial to mango trees, and also to the large leaves of the Jamei Malae, (Eugenia malaccensis), but in the jungles they select a vast number of trees, or rather make no selection at all.

Formica longipes, new species. *Worker*, length 1-5th of an inch; in form exceedingly similar to the last; legs very long of a pale rufous colour throughout, tinged with dusky on the abdomen. This Ant is found in all the forests of India living in holes in the ground, in tolerably numerous societies, and feeding on vegetable secretions, not at any distance from the jungles. A little inland into the jungle you meet with it. It is often found about bungalows and out-houses.

Formica timida, new species. *Worker*, length 9-24th of an inch long; colour dingy rufous, darkest on the head, and tinged with dusky on the abdomen. All the body covered with long scattered hairs. *Warrior*, ¼ an inch long; *Female*, like Worker, but somewhat larger, with wings, and 3 ocelli. *Male*, 7-24th of an inch long; only found on the Malabar Coast where it is very common, living chiefly on vegetable secretions. It has its nest under ground. It is very different in habit from the other large red Ant (F. smaragdina) being most timid, and if approached or touched, dropping to the ground at once and hiding itself. It does not always confine itself to vegetable matter. On one occasion pigeons squabs placed in a room on the floor, were killed by these Ants, chiefly however the warriors.

Formica stricta, new species. *Worker*, length 7-20th of an inch; antennæ rufous, head and thorax dull greenish black, shagreened; abdomen shining glaucous green; legs shining black, found on flowers in Malabar; its nest not seen, not very common.

Formica cinerascens, *Fabr.*? *Worker*, length 3-8th of an inch; colour dull black, except the abdomen, which is glaucous green, and somewhat pubescent. *Female* ½ inch long nearly; *Male* 3-12th inch long; *Warrior*, 5-12th of an inch long; head large, antennæ short; eyes minute. This species lives in the ground in small societies. Only seen in the Carnatic. It is described as having the head fulvous, and a triangular spot on the abdomen, but as it is said by Fabricius to have been sent from Tranquebar, in the vicinity of which Dr. Jerdon has seen the present species, he thinks they are probably identical, and that the difference of colour is accidental, especially as there are only two species common in the Carnatic with glaucous abdomen, this and F. rufoglauca.

Formica velox, new species. *Worker*, length 5-24th inch to 6-24th; legs long, colour dull blackish, with the abdomen greenish pubescent. Very common in Malabar and also found in the Carnatic. It frequents flowers, especially delighting in those that have great quantities of pollen, such as the Cucurbitacæ, Hibisci, &c. It runs very speedily, and is very easily alarmed, dropping to the ground on being touched. Its nest not seen.

Formica rufo-glauca, new species. *Worker*, 7-24th inch long; abdomen fine silky glaucous green; head, thorax and legs bright rufous. *Warrior*, 9-24th inch long, head large; colour similar. Found only in the Carnatic in small societies living in holes in the ground. It is possibly Fabricius' species *cinerascens*.

Formica vagans, new species. *Worker*, 3-24th inch long, eyes large; *Female*, 3-24th inch long; this little Ant is exceedingly common in the Carnatic, but not seen on the Malabar Coast. It takes up its quarters in any sheltered spot in a house, under a box, a stone, a hole in the wall, or such like places, and when disturbed flits, with great speed to another suitable spot. Its society is very numerous in individuals and there are many females and males, sometimes with, at other times without, wings. It feeds both on vegetable and animal substances preferring the former like all the true Formicæ.

Formica assimilis, new species. *Worker*, exceedingly similar to the last; length, 3-24th of an inch, its colour chiefly of a shining reddish black, covered all over with scattered white hairs, found frequenting flowers in Malabar, but not abundant.

Formica phyllophila, new species. *Worker*, length 7-48th of an inch, eyes small; colour shining brown black. This little Ant forms a temporary nest between two leaves usually, or sometimes in a head of flowers; it lives in small societies, and feeds entirely on vegetable secretions.

Formica nana, new species. *Worker*, length not 1-12th inch; antennæ, legs and abdomen pale whity brown. This very minute species is found in all parts of India and is very abundant in Mysore; from its very small size it is noticed with difficulty. It feeds on flowers and vegetable secretions.

2ndly. With spines on the thorax.

Formica indificans, new species. *Worker*, 5-24th of an inch long; head and abdomen rufous, thorax dark glossy brown. *Female*, 1-3rd inch long, wingless. This Ant makes a small nest about ½ inch, or rather more, in diameter, of some papyraceous material, which it fixes on a leaf. Each contains one female and 8 or 10 workers. It is very rare, and only seen in Malabar.

Formica sylvicola, new species. *Worker*, 3-12th inch long; abdomen short, oval, colour dull black, abdomen shining glaucous green. *Female*, 9-24th inch long, wingless. This Ant has the same habits as the last, but is not found except in the jungles. It appears very closely allied to *F. hastata* of Latreille from India, and to several other species said to be from Southern Asia; and as some of these *may* be found in India, a brief description of them is taken from St. Fargeau's work on Hymenoptera, viz.

Formica sexspinosa, Latr. Body black, covered with a fine silky yellowish down, especially on the abdomen; length 7 2-3rd lines (French); from Southern Asia.

Formica hastata, Latr. Black, finely shagreened and slightly hairy, length 4 lines. Hab. India.

Formica relucens, Latr. Exceedingly like the last (*F. hastata.*), differs in the following points —body covered with silky, golden, shining down, with a few larger hairs; length 4 lines. From Southern Asia.

Formica Ammon, Latr. Very like the two last, body black, striated, with a few hairs; thorax ashy; abdomen covered with a silky golden down—length 2 1-5th lines. From Southern Asia.

Formica carinata, Fabr. Head rounded, black; thorax black, divided into three by two deep transverse lines; length? of medium size. Southern Asia.—*Dr. Jerdon in Madras Lit. Soc. Journ. Tennent's Sketches of the Nat. Hist. of Ceylon*, p. 420.

ANTAKA, in the hindu religion, an attribute of Yama or Dharma-rajah, in the character of the destroyer. See Cyc. of Ind. Sup. ii. Inscriptions 353. Yama.

ANTARA TAMARA. అంతరతామర. This name is applied to any floating, large-leaved water-plant, as the Villarsia Indica. *Vent.*—Menyanthes Ind. *L.—R.* i. 460.—*Rheede* xi. 28. Pictia stratiotes, L.

ANTARA VALLI TIGE. TEL. అంతర వల్లి తీగె. Cassyta filiformis, L.

ANT EATER, ENGLISH.

Badjar-kita..	... BENG.	Manis ...	... LAT.
Ant Eater...	.. ENG.	Tanggilin ...	...MALAY.
Manis ...	... „	Tarang-giling ...	„
Scaly Ant Eater ...	„	Pang-giling ...	„
Pangolin ...	„	Arialer	TEL.

The Pangolin of India belonging to the Edentata, gets its Indian name from its Malay designation. The genus is common to Africa and South Eastern Asia, and in India is not rare, though from their habit of appearing abroad after sunset they are not often seen. *Manis Javanica* of Desmarest inhabits the Malayan Peninsula, Penang, Borneo, Java, M. crassicaudata of Tickell (the M. pentadactyla of Linnæus, the M. Macroura of Demarest) is found in several parts of India, but also in the lower part of the Himalayas. This species has been known ever since the expedition of Alexander the Great and is mentioned by Ælian under the name φατταγη.—*Tickell, Elliot. Ogilvie, Cantor in Indian Journals of Science.*

ANTELOPE. This is alike a scientific and a popular term, the ordinary application of it, however, by the English in India, being to the Antelope cervicapra of Pallas. Mr. Blyth states that the little Antelopes from Abyssinia, are nearly allied to the Tragelaphi of Ham. Smith of Africa (or the Boschbok Guib or Harnessed

Antelope and their congeners) and the former bear exactly the same relation to the Nilghai of India which the latter do to the Kudus (Strepsiceros) of Africa. The ringed markings of the feet occur throughout the whole series more or less distinctly, and the posterior horns of Tetraceros resemble those of Portax or the Nilghai, and, as in the latter, frequently recline backward in captive-reared individuals instead of taking the normal curve upward. The females of all are hornless, and Mr. Blyth doubts if there be any good generic character to distinguish the females of Tetraceros from those of Tragelaphus, though the latter are somewhat heavier and more Hog-Deer-like in form, especially the Boschbok of the Cape. Both groups are monogamous, and they closely assimilate in habits, manners and gait.

The Antelopes belong to the Order Ungulata of Mammalia, Tribe Ruminantia, the family, Bovidæ, which includes antelopes, goats and cattle, and the sub-family antilopinæ or antelopes proper.

These may be briefly noticed thus :—

Family BOVIDÆ, Antelopes, goats and cattle.

Sub-family Antilopinæ, which has 7 genera and 10 species, viz : *Portaxpictus*, the Nilghai. This has received several generic and specific names from Naturalists, and each of the nations of India have a different name for it, but to the British it is known all over India, as the Nylghau or blue-cow. It is met with throughout India, though rare in the extreme north and south.

Tetraceros quadricornis, the four-horned Antelope, the Chikkara or jangli bahri, is found in many parts of India, but does not extend to Ceylon, nor to the valley of the Ganges nor Burmah.

Antilope bhezoarlica, the well-known Harn of all India is the Antilope Cervicapra of Pallas. It is known to every person who has travelled in India. Of these, in some parts of India, there were many thousands to be seen at times, on the open plains, but rail-roads and cultivation have given facilities for their destruction, and they have become greatly fewer. *GazellaBenettii*, the Ravine deer, or goat antelope of all India, is well known to sportsmen and naturalists : the *Gazella sub-gutturosa* is found in Baluchistan and to its west and north through the Panjab and Persia, but the *Gazella dorcas*, is confined to Arabia.

The Chiru of Thibet, the *Kemas Hodgsonii* is the Kemas of Æolian and is known to many from the remarkable appearance which its horns present both of them growing so close as often to unite and form but one horn.

The *Procapra picticandatus* and *P: gutturosa*, are both of Central Asia, China and Thibet, as also is the Saiga Antelope, the *Saiga Tartarica*. *Mr. Blyth's Reports* 1847. See Antilope. Bovidæ : Cervidæ : Moschidæ : Pantholops : Procapra : Gazella : Tragops : Tetracerus ; Capricornis : Nemorhedus : Alcephalus : and Portax.

ANTEN, a district in the island of Banka, containing the richest of the tin mines : See Tin.—Cyc. of India, Supp. ii. .

ANTERVED, the Do-ab, or Mesopotamia of the Jumna and Ganges. The town was burned by Jessraj.—*Tod's Rajasthan, Vol.* i.

ANTHELIA. This phenomenon is common in the Khasia Hills and in Ceylon. Sir J. E. Tennant mentions that at early morning, when the light is intense and the shadows proportionally dark—when the sun is near the horizon and the shadow of a person is thrown on the dewy grass—each particle furnishes a double reflection from its concave and convex surfaces, and the spectator sees the shadow of his own head surrounded by a halo as vivid as if radiated from diamonds.—*Sir J. E. Tennant's Ceylon. Hooker.*

ANTHEMIS MYSORENSIS, HERB. SYN. of Guizotia Olcifera.

ANTHEMIS NOBILIS, *Linn.*

Atna mus ...	...ARAB. the plant.	Noble Chamomile.	ENG.
Baboonuj	AR the flower.	Roman	„ „
Okh-hywan... ...	AR.	Anthemis	GR. of Theophr.
Tuffah-ul-arz ...	„	χαμαιμηλον... ..	GR. of Dioscor.
Hubuk-ul-bukir..	„	Babune phul	... HIND. PERS.
El-dak-l-mirza ...	„	Chamomelum	... LAT.
Chamomile	ENG.	Baboona-gao	... PERS.
Camomile	„	Chamaindoo-poo..	TAM.
Common Chamomile.	„		

The flowers of this native of Europe and Persia are met with in all the Indian bazars. It is largely used in the infusions or khissanda and is a simple bitter tonic.—*O'Shaughnessy* 413. *Waring. Bombay Products. Royle.*

ANTHEMIS PYRETHRUM. *H. Kunth.*

Anacyclus pyrethrum, *D. C.*

Akarakaru.	BENG. HIND. PERSIAN.	Indian fever few...	ENG.
Akarakaram	...HIND.	Pyrethron	GR. of Dioscor.
Pellitory	ENG.	Akarakara ...	... PERS.
Indian Pellitory...	„	Akarakaram	... TAM.

This is a native of the South of France and Barbary, but its roots are largely imported into India where they are used in medicine and as an ingredient in certain snuffs. As a masticatory it is used largely in toothache and it effectually cured two cases of spontaneous salivation, but it is used as an external as well as an internal stimulant and sialogogue. Dose one to two ounces in infusion. Price 12 annas per lb.—*Vegetable Kingdom*, 455. *O'Shaughnessy*, 413-415. *Cat. Ex. p.* 2.

ANTHERICUM, a genus of the Liliaceæ, some of which, as the A. annuum, are cultivated as flowering plants. Voigt enumerates 15 species, A. canaliculatum, exuviatum : filifolium fragrans : graminifolium : glaucum : Liliago : Nepalense : Nimmonii ; physoides : ramosum, revolutum, tuberosum ; vespertinum : as growing or cultivated, principally brought from the genus Phalangium.

ANTHERŒA MYLITTA. *Drury.* The Tusseh silk moth of Ceylon, feeds on the Terminalia catappa and Palma Christi.

ANTHISTIRIA, a genus of grasses of the order Panicaceæ. Voigt names four species, ciliata, heteroclita : polystachia and scandens, A. ciliata grows abundantly in the Concans, where it is largely converted into hay for horses. Mr. Mason noticed in the Karen jungles a large grass of this genus, with lax panicles and very long awns.—*Mason. Voigt.*

ANTHISTIRIA ANATHERA.

Chooneria, HIND. | Jyotishmati, HIND.

Its roots are luminous in the rains.—*Hooker.*

ANTHOGONIUM GRACILE. *Wall.* One of the Orchiaceæ, growing in Nepal and the Khasya mountains, with largish blood coloured flowers.

ANTHOZOA, a natural order of polype found within the tropics. The Corallium rubrum of Lamarck, the red coral of commerce is obtained from this order, and the coral is the axis of the polypodium.

ANTHRACITE COAL occurs at Duntinnapillay. It is also called blind coal because it burns without flame ; and glance coal, from its lustre. See Coal.

ANTHRODACTYLIS SPINOSA, FORSK. Syn. of Pandanus odorotissimus.—*Linn.*

ANTHROPOPHAGI, the existence of such was known to ancient writers but latterly discredited. They are mentioned in *Mandeville's Travels,* 228, and as living in Sumatra, cannibals devouring human flesh, (*Anderson, Mission to Sumatra,* 224.) and their existence is no longer doubted. Their prototypes, the Issedones of Serica or the Altai, (*Herod. i.* 216, *iii.* 99. IV. 25.) and the Indian Padei, did not excel them in barbarity. The "Aghorduntior Aghori are a class of people who frequent the ghats at Benares, though they are occasionally to be found in other parts of India, and have been met with even in Assam. They are Ogres (indeed, the similitude of the word to Aghoree is noticeable), and affect a practical philosophy, which disbelieves in the existence of any difference between things, and asserts that all distinctions depend on the imagination. A cuff or a kick is as immaterial to them as a blessing. They go about in *puris naturalibus,* with a fresh human skull in their hands (of which they had previously eaten the putrid flesh, and afterwards scraped out the brain and eyes with their fingers), into which is poured whatsoever is given them to drink, and to this they pretend to be indifferent whether it be ardent spirits or milk or foul water. For food they take the first thing which offers, whether it be a putrid corpse, cooked food, or ordure. With matted hair, blood red eyes, and body covered with filth and vermin, the Aghori is an object of terror and disgust. He looks like a wolf, ready to destroy and then devour his prey, rather than a human being. Hindoos, however, look on these wretches with veneration, and none dare to drive them from their doors. They are among the worst of the many turbulent and troublesome inhabitants of Benares, and there is scarcely a crime or enormity which has not, on apparently good grounds, been laid to their charge. One of the ancient Hindoo dramatists, Bhava Bhutt, who flourished in the eighth century, in his drama of *Malati and Madhava,* has made powerful use of the Aghori in a scene in the Temple of Chamunda, where the heroine of the play is decoyed in order to be sacrificed to the dread goddess Chamunda or Kali. The disciple of 'Aghora Ghanti,' the high priest who is to perform the horrible rite, by name 'Kalapa Kundala,' is interrupted in his invocation to Chamunda by the hero Mahdava, who thus describes the scene :—*Act V., scene* 1, *H. H. Wilson's Translation.*

Now wake the terrors of the place, beset
With crowding and malignant fiends. The flames
From funeral pyres scarce lend their sullen light,
Clogged with their fleshly prey, to dissipate
The fearful gloom that hems them round.
Well, be it so. I seek, and must address them.

* * * * *

How the noise
High, shrill, and indistinct, of chattering sprites,
Communicative, fills the charnel ground :
Strange forms like foxes flit along the sky.
From the red hair of their lank bodies darts
The meteor blaze or from their mouths that stretch
From ear to ear, thickset with numerous fangs
Or eyes, or beards, or brows, the radiance streams.
And now I see the goblin host ; each stalks
On legs like palm-trees : a gaunt skeleton,
Whose fleshless bones are bound by starting sinews,
And scantly cased in black and shrivelled skin,
Like tall and withered trees by lightning scathed,
They move, and as amidst their sapless trunks
The mighty serpent curls—so in each mouth
Wide yawning, lolls the vast blood-dripping tongue.
They mark my coming, and the half-chewed morsel
Falls to the howling wolf—and now they fly.

The belief in the horrible practices of the Aghori priesthood is thus proved to have existed at a very remote period, and doubtless refers to those more ancient and revolting rites which belonged to the aboriginal superstitions of India antecedent to the Aryan-Hindoo invasion and conquest of the country. It might be supposed that any such indecent, flagrant, and disgusting customs as are now practiced by the Aghori might be summarily suppressed under the provisions of the new Penal Code of India.

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* *The People of India : a Series of Photographic Illustrations, with Descriptive Letter-press*

of the Races and Tribes of Hindustan. Originally prepared under the Authority of the Government of India, and reproduced by Order of the Secretary of State in Council. Edited by J. Forbes Watson and John William Kaye. Vols. I. and II. (Allen.) Quoted in *Friend of India,* 1868. (*Leyden, Asiatic Researches,* IX. 202) *St. John's Indian Archipelago* i, 20. See Aghora, Akhora.

ANTIALCIDAS, one of the Greek successors to a part of Alexander's kingdom. Antialcidas succeeded Lysias in the Paramisidæ, about B. C. 150 also in Nysa. See Cyc. of India, Sup. ii ; Greeks of Asia.

ANTIARIS. Of this genus of trees, there are six or seven species recognized, (1) the A. toxicaria, Lesch., the genuine Upas tree of Java : (2) the A. innoxia, Bl. : and A. macrophylla, R. Br. A fourth species to which no name has been applied (ramis foliis-que utrinque velutinis) is cultivated in the Kew Gardens : the A. Saccidora, Dalz. of the Western Coast of Peninsular India is a fifth : the sixth is the A. Zeylanica, Thwaites, of Ceylon which like A. Saccidora, yields sacks ; but this author now refers it to A. innoxia, Blume, and a seventh is A. Bennetti, Seeman, the Ma-nui or Ma-vu-ni, Taga, of the Tonga Islands—all are trees of great height. The rice sack of the Cooroombar of the Wynaad forests is made from A. saccidora. He cuts a branch of the size needed ; beats the bark all round on the outside, until the reticulated fibres of the inner bark give way, and then the bark is drawn off entire, the outer bark rubbed away and if a piece of the wood have not been left the inner bark at the bottom is sewed with thread made of the Pimelia which completes the process. The tree is very common and of gigantic size, the wood is said to be good and the fibre which is strong and could be procured in any quantity and at a cheap rate may prove of some commercial value.—*No.* 53, *Vol.* 9, *Ann. Mag. Nat. Hist.* —*Hog's Vegetable Kingdom,* 68.—*O'Shaughnessy,* 282. *Thwaite's Enum. pl. Zeyl. p.* 263.

ANTIARIS INNOXIA, Blume, Rumphius, i. p. 172, t. 54.

A. Saccidora, Dalz. Hook. Journ of Bot. iii. (1851) p. 232 ; Wight, Ic. t. 1958.

A. toxicaria, Hook. Comp. to Bot. Mag. i. p. 311, t. 17.

Lepurandra saccidora, Nimmo, Plants of Bombay, p. 193.

A. *toxicaria,* Lesch., varietas ?—c. p. 2,231.

Jagguri ...	... ...Can.	Karwat	Mahr.
Karwat ...	... ... „	Araya-angely...	Maleal.
Jacktree ?	... ...Eng.	Riti-gass... ...	Singh.
Chandal ...	... Hind.	Netavil maram	...Tam.
Jagguri ...	... Mahr.		

A stately forest tree not uncommon in the drier parts of Ceylon, indigenous on the west side of India, in the ravines at Kandalla and in the jungles near Coorg, and very common and the most gigantic of all the trees in the Wynaad jungles. The wood is not much used, but the cooramboor bags or sacks are made from the liber or inner bark by a very simple process. A branch is cut, corresponding to the length and diameter of the sack wanted. It is soaked a little, and then beaten with clubs until the inner bark separates from the wood. This done, the sack, formed of the bark, is turned inside out and pulled down until the wood is sawn off, with the exception of a small piece left to form the bottom of the sack, and which is carefully left untouched. These sacks are in general use among the villagers for carrying rice, and are sold for about 6 Annas each. The Singhalese sew up one end of the bark for a sack. *Royle's, Fib. Pl. page* 343, *Mr. McIvor, in M. E. J. R. Thwaite's En. Pl. Zeylanic, p.* 263.

ANTIARIS TOXICARIA. *Leschen.*

Ipo toxicaria, *Persoon.*

The upas tree of Java.	Eng.	Anchar...	Malay. Jav.
Bina	Borneo.	Antiar	„

A tree of Java often over 100 feet in height and its juice is one source of the half fabulous Upas poison. The poisonous sap flows freely from the bark when tapped. The *Upas antiar* poison is prepared from it in earthen vessel ; the juice is mixed with the seed of the Capsicum frutescens, and various aromatics. The poison at first acts as a ·urgative and emetic, then as a narcotic, cau death by violent fits of tetanic convulsions. virulence is less than the poison of t The people however are much impressed s power. The tree has a fine appearance. A specimen at Borneo was about sixty feet high, with a fine stem, and a bark of a very white colour : and the stem was supported at its base by buttresses, so common to the trees of tropical jungles. With this tree before them, which was surrounded by their graves, they nevertheless told Mr. Low that it was impossible to go under it without dying. *Horsfield Batavian transactions* (*Vol. vii.*)—*Low's Sarawak, p.* 53. *Vegetable Kingdom* 680. *O'Shaughnessy, p.* 579. *Crawfurd's Dictionary,* 442.

ANTICHRIST. The mahomedans believe in Antichrist whom they term Al-Dajjal.

ANTIDESMA, a genus of plants belonging to the natural order Stillaginaceæ, into which several species of stilago of Linnæus have been brought. A. lanceolaria, is a shrubby plant of Chittagong, and Ceylon, up to 1,500 feet : A. Montanum a middle sized tree from 3,000 to 6,000 feet in Ceylon.—*Roxb. iii.* 760. *Thw. En. pl. Zeyl. p.* 289. Wight, in *Icones,* gives figures of A. acuminata, 1991 ; Bunias, 819 ;

lanceolaris, 766; paniculata, 820; tomentosa, 767-8.

ANTIDESMA ACIDA. *Linn.*

Poolchi pullum, TAM.

This acid fruit is eaten by the common people. The tree grows in the woods.—*Ainslie, p.* 321.

ANTIDESMA ALEXITERIA. *Linn.*

Noli tali maram... ... TAM.

A small but very handsome tree, common enough in the jungle at Coimbatore, in the forests on the Bombay side of India; it affects rather the skirts of cultivated land, and never reaches a size fit for purposes of carpentry. Its leaves are used in decoction in snake bites.

The Bark.

Noolha talie puttay... ... TAM.

From the nar or tough stringy fibres of this bark, the inhabitants of Travancore make ropes.

The Fruit.

Noolha Tali pallum ..TAM. | Nuli Tali...HORT. MAL.

Is a pleasant tasted, reddish coloured fruit, said to be prized, on the Malabar coast for its cooling qualities.—*Ainslie, p.* 183 *&* 229. *Vegetable Kingdom*, 683. *Drs. Gibson and Wight. Roxb.* iii. 758.

ANTIDESMA ALEXITERIUM, *Spreng*, is Syn. of Antidesma bunias.

ANTIDESMA BUNIAS, Spr., Syst. Veg. i. p. 826; Wight, Ic. t. 819.

A. Alexiteria, Linn (partim).
A. comptum, Tul. i. c. p. 190.
A. floribundum, Tul. i. c. p. 189.
Stilago Bunias, Linn.; Roxb. Fl. Ind. iii. p. 758; Rheed. Hort. Mal. IV. t. 56.—c. p, 660. (766.)

Ariya poriyam ...MALAY.	Kara-Willa gass...SINGH.
Noli Tali ... ...MALEAL.	Kabilla... „ „
Nolai Talai maram...TAM.	

A quick growing middle sized branchy tree common in Ceylon up to 3,000 feet above the sea, also on the Coromandel and Malabar sides of the Peninsula of India, and found in Assam and in Nepal. It attains rather a large size in Assam with a girth of twelve or fourteen inches, but the wood by immersion in water, becomes heavy and black as iron. The bark is used for making ropes. Its leaves are acid and diaphoretic, are used as decoction in snake bites, and when young are boiled with pot herbs like sorrel, and employed in syphilitic cachexia.—*Useful Plants. Vegetable Kingdom*, 683. *Roxb. iii.* 758. *Thw. En. pl. Zeyl. p.* 289.

ANTIDESMA DIANDRUM.

Stilago diandra, *Willde.*

Pella-gomoodoo...SINGH.

This tree grows on the Northern Circar mountains and in Travancore: its wood serves for various uses.—*Roxb. iii.* 759.

ANTIDESMA PANICULATA, *Roxb.* iii. 770.

Kyet-tha-hen ... BURM.	By-it-zin ... ...BURM.
Khoodi Jam ... BENG.	Boo-ambilla-gass..SINGH.

This is a low famous tree common in Ceylon, up to 2,000 feet above the sea. It has a light ash coloured bark. It is common in Bengal jungles and is found in the Rangoon, Pegu, Tonghoo and Tharawaddy forests. On the same plant are notched, round and pointed leaves and it flowers in April and in July and bears a red sour fruit, resembling the barberry. It furnishes a small crooked timber, of a close grain, with the wood of a red colour and adapted to cabinet making.—*Dr. Mason. Dr. McClelland.*

ANTIDESMA PUBESCENS, *Roxb. iii.* 770.

Jeriam Kottam.MALEAL.	Pollari ... ...TEL.
Jeram Kottam.. „	Pollai ... ... „
Jana palaseru... TEL.	

This small tree is a native of the Northern Circars, its bark is used for making ropes. The berries are eaten by the natives.

ANTIDESMA ZEYLANICUM, LAM.

A. Alexiteria, LINN. (partim); BURM.

Heen Ambilla gass...SINGH.

Common in the hotter parts of Ceylon, celebrated for its alexipharmic properties.—*Thw. En. pl. Zeyl. p.* 289. *Veg. Kingdom*, 683.

ANTIGONUS, B. C. 305 Seleucus Nicator gained a great victory over Niconor a lieutenant of Antigonus, Seleucus B. C. 303 crossed the Indus to make war on Chandragupta, but making a hasty peace he turned on Antigonus whom he drove into Phrygia, where he was defeated and slain B. C. 301. The name of Antigonus appears in the edicts of Asoka, on the rock temples. See Buddha. Inscriptions, p. 386. Kabul, p. 436.

ANTILOPE, a genus of mammals all of them in a wild state, some species gregarious and polygamic others purely monogamic, some of them live on great plains, and others in forests; they are objects of the chase, their flesh is used as food and their skins and horns are articles of trade and commerce and ornament. Their colours and the forms of their horns vary greatly with age and seasons of the year. Zoologists have referred the species to one genus or other of the Antilope family of ruminants, the Antilopeæ,—and Antelope is the popular name for many animals of a somewhat similar form, whom, however, zoologists class differently. The Japanese goat Antelope is the cervus crispa. The Antilope bubalus and A. ruficollis of northern and eastern Africa, are the Alcephalus bubalus and the Gazella ruficollis:

the Antilope dorcas is the Gazella dorcas—the A. gutturosa, is the Procapra gutturosa; the A. picta of Pallas is a Portax; The Sumatran Antelope is the Capricornis Sumatrensis, and the A. Subgntturosa is a Gazella. With such changes from one genus to another, the confusion of popular with scientific names is great, but the following are commonly recognised.

ANTILOPE ARABICA. HEMPRICH.

Bennettii; *Sykes.*

Budari	CAN.	Chikara	DEKH.
Tiska	„	Porsia of the Baori is the Buck.	
Mudari	„	Chari „ „ the Doe	
The Indian Gazelle	ENG.	Dabi of Yemen.	
The Arabian „	„		

The Gazelle of Arabia abounds in the islands of the Red Sea, particularly in Dhalak and on the western shore about Massowa and all along the Abyssinian coast. It abounds in the Indian peninsula, in the valleys of the sandstone formation and generally among the jungles of the red soil to the eastward of the southern Mahratta country, in small herds of 3, 5, 6 or more, but commonly a buck with two does. The Gazelle of Hauran and Syria are probably the same. The Dabi ضبي is the same as the Hebrew word in Deuteronomy XIV, 5, translated the Roe, and is the Gazelle of the Arabian poets who say احور من كل ألضبي " The eyes of the Dabi are the most beautiful of all." The ordinary height is about two feet and its horns 10 or 11 inches.—*Elliot in Madras Journ. of Lit. and Science.*

ANTILOPE CERVICAPRA. *Pallas.*

Chigri	CAN.	Common antelope.	ENG.
Harn	DEK. MAHR.	Phundayet(buck)	MAHR.
Harnin	„ „	M'riga	SANSC.
Kalwit	„ „	Alali of the Baora.	
Saison	HIND.	Gundoli „ „ „	

The common antilope frequents the plains on the cotton soil of India. When they move off to avoid some object of which they have doubts, they often bound to surprising heights. Their swiftness is such that dogs have never it is believed captured a healthy one, but they are often run down by wolves who drive and surround them, and the cheetahs kill great numbers of them, usually selecting the bucks. About 1838, herds of very many hundreds with many out-lying bucks were to be met with in the Dekhan, but the hunting leopard, the cheeta, and the sportsmen have so weeded out the bucks that only small patches of three to twelve are now to be seen and these all does,—who, without the males, easily fall a prey. The bucks are of a dark black colour and the younger bucks are driven off by the buck of the herd, so soon as they begin to turn black; but fierce combats ensue before the buck of the herd is selected. The horns are from 19 to 25 inches long with 4 or 5 flexures and up to 50 rings or annuli.—*Elliot.*

ANTILOPE GORAL. HARDWICKE. Of the Himalayas and Nepal, the Ghoral of the middle and northern region of the hill ranges living in herds.—*Ogilby.*

ANTILOPE HODGSONII, ABEL, the Chiru, Pantholops Hodgsonii, is a beautiful and stately antelope confined to the Bhot country, Thibet and neighbouring territories and appears to be wholly unknown on the southern face of the mountains.—*Ogilby.*

ANTILOPE QUADRICORNIS, BLAIN.

Petracerus quadricornis.

Chikara ... ... HINDI.

This one of the four horned antelopes, occupies the lower hills and forests of the Himalayas. It is of a uniform bright bay colour and is monogamous.—*Ogilby.*

ANTILOPE, Sub-4-Cornutus, *Elliot.*

Brown Antelope, *Sykes.*
Antelope Chikara, *Hardwicke.*

Chikara ? ... ... HIND.

Has four horns, but the spurious horns are so small, as rarely to be met with in adult individuals. They arise from bony swellings immediately in front of the true horns. They are about two feet high, and the colour is various shades of brown. It is monogamous and always found in pairs. It occupies the Mulnad. This seems to be the A. quadricornus of Blainville, now transferred to the genus Tragops, and the goat antelope of Europeans.—*Elliot.*

ANTILOPE THAR. HODGSON: is the Thar or thaar of the Himalayas, where also, in the more western parts of the mountains, the names Surow, Serow and Imoo are applied up through Nepal to the Sutlej, it is the Capricornis bubalina of authors.—*Ogilby. Rapports du Jury mixte international, p.* 54.

ANTIMACHUS. Of the Greek successors to the conquests of Alexander the Great, there were two of this name, viz., Antimachus Theos, B. C. 190 who ruled in Nysa, Gandharitis Peukelaotis and Taxila, the other, Antimachus Nicaphorus B. C. 173 who ruled over the same territories, and contemporarily with Eucratides, retaining the rest of his dominions.

ANTIMONY, SULPHURET OF.

Ismad, koh'l,	AR.	Anjan	HIND.
Tay-lak-youk	BURM.	Surma,	„
Spies-glas	DUT.	Ungen	„
Ter Sulphide of Antimony	ENG.	Sulfuro d'Antimonio.	IT.
Ter Sulphuret of Antimony	„	Stibium	LAT.
		Antimonium crudum	„

Sulphuret of Antimony	Eng.
Sesqui-Sulphuret of Antimony	„
Grey Antimony	„
Antimony	„
Surma	Dukh. Hind. Malay. Pers.
Antimoine	Fr.
Sulfure d'antimoine.	„
Antimoine Sulfure	„
Spiesglanz	Ger.
Antimon	„
Dreifach	„
Schwefel Antimon.	„
Stimmi	Gr.
Antimonium	Lat.
Antimonii Sulphuretum	„
Antimonii ter-Sulphuretum	„
Surma	Malay.
Kinang	„
Surma	Pers.
Antimonia	Rus.
Sauvira	Sans.
Anjana Mai	Tam.
Koblu, Anjancle, ?	„
Nilanjanam	Tel.
Anjanam	
Katuka	

The ter sulphide of antimony is the Stibium of the ancients. A substance *surmah* sold for it is to be found in every Eastern village, it being used by the Native medical practitioners, also the mahomedan men, who apply it to their eyelids to give brilliancy to the eye. But ores of iron, and manganese and galena are sold in the Indian bazaars, as Surmah, or Sulphuret of Antimony. Great Britain receives the larger portion of its supply of antimony from Singapore, to which place it is brought from Borneo. It is imported in the shape of ore, and commonly as ballast. Its other chief localities are Saxony, Cornwall, Spain, Mexico, Siberia, the Eastern lands, and Martaban? in Pegu. It is brought Bombay from Siam and the Persian Gulf. is ore is generally of a lead-gray colour, ssing considerable splendour, and is met th compact, and in rhombic prisms of consi[illegible]ble size, and variously modified. The [illegible]stances sold as Surmah are to be got in any quantity in the bazar at two very different *prices*—some being at one *rupee* per lb., and called Europe, and sometimes China Surmah—and other samples at 1½ *annas* a lb. Samples of this last have been found free from either Lead or Arsenic; and at the price might be advantageously exported; Tartar emetic has been made from it. At the Madras Exhibition of 1857, sulphuret of antimony of good quality was exhibited from Vizianagrum, but the substances sent as soorma from Kurnool and Hyderabad were galena or sulphuret of lead. Some of the purest samples come from Borneo, from the mines of Sarawak, but it is also imported from Moulmein, Pegu, Persia, Kabul, and the Panjab or from Candahar via Umritsur. Ter sulphide of antimony is said to be found in the Salt range near the Keura salt mine. Vast quantities of antimony have been found by Major Hay in the Himalayan range of Spiti and been found near Beyla by Major Boyd; it occurs massive in Baluchistan. The greater part of the mineral brought to India, however, comes from the Eastern Islands, Burmah and the Malay Peninsula, where it occurs in immense quantities. It is a very abundant mineral in Province Amherst, and is often met with on the mountains that bound the valley of Thoün-gyeen. Mr. O'Riley found it at the sources of the Ataran and large quantities of the ore have been dug up in the neighbourhood of Moulmein, but there was no demand for it in Calcutta whither it was sent, and operations have been suspended. Antimony, iron, arsenic, and sulphur with bismuth, and in one instance a trace of molybdena was discovered in them. The metal was found for the first time in Borneo, in 1823, on the North Western coast of that island. It exists in several places there, but mines of it have been worked only in Sarawak. The ore is, as usual, a sulphuret in a matrix of quartz, and at present furnishes the chief supply of Europe, being exported from the emporium of Singapore, to the yearly amount of about 1,500 tons.—Perhaps the most valuable of all the samples of this ore, received by the Madras Museum, was that from the mines of Sir James Brooke in Sarawak. Butter of antimony, a substance sometimes used with sulphate of copper for bron zing gun barrels, the iron decomposing the chloride and depositing a thin film of antimony on its surface. The chief alloys of antimony are *type metal*, consisting of 4 lead and 1 of antimony; Stereotype metal, 6 lead and 1 antimony, music-plates consisting of lead, tin and antimony; Britannia metal, consisting of 100 parts of tin, 8 antimony, 2 of copper, and 2 bismuth. Pewter is sometimes formed of 12 parts of tin and 1 part antimony. Antimony is also used in the preparation of some enamels and other vitreous articles and much employed in modern medicine as antimonial powder and tartrate of antimony. James's powder is said to consist of 43 parts of phosphate of lime, and 57 of oxide of antimony.—*Madras Museum. O'Shaughnessy. Dr. Mason's Tenasserim. Faulkner. Tomlinson. Madras Exhibition of* 1857. *Jur. Reports of Exhib. of* 1851 & 1857. *London Exhib. Cat. for* 1862. *Crawfurd's Dictionary, p.* 13. *Major Boyd's Account of in Bom. Geo. Trans.* 1839, *p.* 40, Vol. III. *p.* 204.—*Sulphuret of, in Moulmein. Capt. Foley,* in *Bl. As. Tran.* 1836, Vol. V. p. 273.

ANTIOCH, an ancient town of celebrity, of which the modern village of Antaki is the humble representative. Previous to the Macedonian conquest, its name was Riblath; but being chosen by Seleucus Nicator, one of Alexander's generals, to be the seat of his future government, and being greatly embellished by him, it received the name of Antioch, from respect to his father, Antiochus. For several centuries it was the residence of the Syro-Macedonian kings, and afterwards of the Roman governors of this province. Vespasian, Titus, and other emperors, granted to it very great privileges. There were several cities in the east which bore the same name, but only two of them are mentioned in scripture; viz., Antiochia Pisidia, a town of Asia Minor, and the one now under notice: the latter is frequently mentioned in the Acts of the Apostles, and here the disciples of Christ were, by divine appointment, first called by the name of their Master and Lord. In later times, it was styled the "Eye of the Eastern Church." Being repaired by the Emperor Justinian, A. D. 529, it was called Theopolis, or "the City of God," on account, it is said, of the inhabitants being mostly christians, attracted hither, no doubt, by the peculiar liberty they enjoyed in the exercise of their religion. This liberty, it appears, was a remnant of the *jus civitatum*, or "right of citizenship," which Seleucus had given to the Jews (of whom the former were considered as a sect), in common with the Greeks. Their church was long governed by illustrious prelates. *Robinson's Travels, Vol. ii. p.* 288.

ANTINTALU, Tel. Desmodium diffusum, *D. C.* Other species are called by the same name as *D. quinqueangulatum W. Icelongatum*, Wall, under the name of *D. diffusum. Roxb. iii.* 355-7.

ANTIOCHUS. The names of thirteen rulers over parts of Alexander the Great's conquests. Alexander born B. C. 356, died 323, and the following are the ordinarily recognized dates of his successors, bearing the names of Antiochus.

B. C.		Surname.			
280	I	Soter.	125	VIII	Grypus.
261	II	Theos.	112	IX	Cyzicenus.
223	III	Magnus	95	X	Eusebes.
		(Achæus.)		XI	Epiphenes.
175	IV	Epiphanes.	88	XII	Dyonisius
164	V	Eupator.			of Josephus
144	VI	Theos.			and
137	VII	Sedetes.	69	XIII	Asiaticus.

After the last of whom Syria became a Roman Province. Most of the Antiochi merit separate notices, from the influence which they exercised over N. W. India. Antiochus 1st surnamed. Antiochus Soter, was a Syrian King. In B. C. 280, Seleucus Nicator was assassinated by Ptolemy Ceraunus, from which date, the whole of Asia, from the Indus to the Jaxartes was under Antiochus Soter, who from B. C. 280 to 261 reigned undisturbed over the same territory and left it to his son, the second Antiochus surnamed Theos. In his reign Antiochus Theos, a Scythian, named Arsaces, came from the north of the sea of Azoff induced the Persians to throw off the Greek yoke and founded the Parthian empire, making Rhages his capital. Antiochus iii, was surnamed Magnus (Achæus) he was assassinated. B. C. 223. Antiochus the great, according to the Greek and Roman historians, invaded India B. C. 206, and formed an alliance with Sophagasenes, the sovereign of that country. It is now ascertained, from the evidence before referred to, that this sovereign was Asoka, or Piyadasi, king of Magadha (grandson of Chandragupta), who ascended the throne B. C. 247. He was a zealous buddhist, and in one of his edicts still extant, engraved on stone, he expressly mentions by name Antiochus, the Greek King (Antiyako Yona Raja), who, it seems, had favoured, if not adopted, the buddhistic opinion. Antiochus the Great, in his march towards India, defeated Euthydemus, near Merv, in a battle in which Antiochus led the united Syrian and Parthian armies. Euthydemus was then taken into alliance and he led Antiochus and his Syrian army through Bactria, *i. e.*, by the route north of the mountains, to the Kabul valley and across the Indus in B. C. 206. There Antiochus the Great made peace with Sophagasenes the Asoka of India and Asoka recorded this, by edicts engraved on rocks and pillars, in various parts of India in characters exactly resembling those on the coins of Agathocles. That on the Girnar rock names Antiochia-Yona-Rajah. In B. C. 205 Antiochus returned by way of Arachotia.

The discovery of his name, in two of the edicts of Asoka, was made by James Prinsep.—*Bl. As. Trans.* 1838, Vol. p. 156. *History of the Panjab. Vol. i. p.* 57. See Cyc. of India, Supp. ii. Greeks of Asia. Kabul, p. 435-43[illegible], Vindusara.

ANTIRRHINUM MAJUS, *Linn.*

Snap Dragon... Eng.

Several species of this genus are gro[illegible]n India as flowering plants, A. molle, A. siculum, A. orontum, and A. majus. A. orontum has a variety known as A. Indicum, but the better known is small Majus, the Snap-dragon, cultivated for its beauty, a native of England, but in India, succeeds well during the cold months, the seed should be sown during the rains, it grows best in soil, not too rich.—*Jaffrey. Voigt*, 499.

ANT-LION, the larvæ of this are well known in India. Their form, at the lower part, resembles that of a spider, but the head is armed with a sharp strong pair of claws. They excavate, in fields, gardens and roadways, small cup shaped cavities, with exquisitely smooth edges and sides, at the bottom of which they lurk so that any insect approaching near, immediately falls below to the ambush and is seized and destroyed. Their excavations are usually carried on at night, but in the process, though they throw up the sand and gravel to a considerable height, the soil around their cups is very level. They often throw up a particle of sand towards any adhering insect, which by moving the mass, brings down the insect with it. On one occasion, a large black ant was seen to fall into one of the cups, and was seized by the ant lion, but its comrades adhered to the captive to release it. In Ceylon are four of the tribe Palparius contrarius, *Walker*, Myrmelon gravis, *Walker*, M. dirus, *Walker* and M. barbatus. *Walker. Sir J. E. Tennant's Sketches, Nat. Hist. Ceylon, p. 4, 2d. Ed.*

ANTS, WHITE.

Dewak ...	... HIND.	Rayap ...	MALAY.
Termites...	... LAT.	Rayah ...	„
Ani-ani ...	...MALAY.	Shellu ...	TAM.
Anai-anai...	... „	Cheddulu ...	TEL.

The term White-Ants, is applied by the English in India to species of Termites. They are interesting, from the great mounds of earth which they erect. Those in India rarely exceed seven or eight feet, but some Ant hills in S. Africa are of great size. On the banks of the Chobe, Livingstone, mentions them 30 feet high and of a base so broad that trees grow on them. In the open fields, the injury to produce which they can occasion, is trifling, but in gardens, where, as with sugar cane the crops are long in the ground, much loss is sustained from their attacks. They usually work under cover, and erect galleries of earth cemented, as they progress. In towns, with substantial houses of mortar and beams of wood, the loss which they occasion is often very great, for they pierce the walls and tunnel the beams in every direction. In St. Helena in 1860 to 1866, it was discovered that they had ruined many public buildings. The chief remedy is to destroy their cells and dig up their queen. Their mounds are tunnelled in every direction and their queen, a large shapeless white mass lies in the centre. By removing the whole the remedy is effectual and permanent. A composition of lime, tar, and soap, in equal parts, boiled together and smeared over places where the white ants appear, is a very effectual bar to their further progress. To protect the beams, the ends are now usually laid on the wall, and the sides left unclosed, so that the first approach of these insects can be detected, and this opening also prevents dry rot. Wood may be preserved by using a solution prepared with 8 gallons of fresh water, 1 lb. of pounded Croton tiglium, 1 lb. Margosa tree, and 1 lb. of blue vitriol; when dissolved, soaking the timber well, and afterwards drying in a breeze, but Cochin and Moulmein Teak, and Ebony are but seldom attacked by white ants. The wood oils are thought useful, but the earth or mud oils, so abundantly produced in Burmah are thought to be effectual preventives to their encroaches;. *earth* or *mud* oil, has been used most effectually lately on premises at Bangalore; this oil is one rupee a quart in the bazar, is impervious to white ants, always remains *thick* and they cannot work in it? Ordinary coal tar is without the slightest effect, as it hardens in a very short time.

Sets of sugar-cane and other substances can be protected by steeping them for half an hour in a mixture of assafœtida 8 chittacks; mustard seed, 8 seers; putrid fish, 4 seers; bruised butch root or maddar 2 seers, with sufficient to mix them into the thickness of curds, but the poisonous influence of the butch on vegetable life is known and cannot be recommended where the product is to be eaten: small quantity of arsenic with a few ounces of burned bread, pulverized flour or oatmeal, moistened with molasses, made into a dough and placed near their tumuli, is said to insure their destruction. The wood oils, from the various species of Dipterocarpi, applied to wood, prevents, it is said, the dry rot, as also the attacks of White Ants; and the addition of catechu to the oil greatly increases its preservative powers—(*Simmonds*) *Mendis.*

ANTIPATRIS, of the Greeks, is the modern Kafir Saba.

ANTISA. అంటిశ Achyranthus aspera, *L.*

ANTI-TAURUS, from the southern slopes of this range, there spring the two sources of the Tigris, in central Armenia, both near those of the Araxes and Euphrates, and not very distant from that of the Halys.—*Colonel Chesney's Euphrates and Tigris.*

ANTUMORA. BENG. Isora corylifolia: Schou and End.

ANU, in hindu legend, one of the sons of Yagati, one of the old fathers of mankind. Anu was the founder of one of the five great Turanian tribes, the Yadu, Turvasa, Druhyu and Anu. See India p. 315. Cyc. of Ind. Sup. ii.

ANUGA KAYA, అనుగకాయ TEL. Lagenaria vulgaris, *Ser.*

ANUGAMANA, in brahmanism, the performance of suttee by a woman alone, whose husband has died in a distant country: a sandal, or any article of his clothes may then represent him.

ANUVAKA, a Sub-division of a mandala of the Rig Veda. See Veda.

ANUMULU. అనుములు. TEL. Lablab vulgaris, *Savi.*

ANUN KARRA. TEL. Anun wood.

ANEVAL-GATTI. HIND. Emblic Myrobolan.

ANZARUT. ARAB. PERS. آنزروت Sarcocolla.

ANZARI, a tribe in Lebanon, idolaters, in number 20,000, one of their sections, called the Shamsi are said to worship the sun (Shams) Pers. A spacious plain, open to the sea on the west, extends north as far as Tortosa, and is bounded on the east by the Anzari mountains. This chain is a lower branch of the Libanus, but is less known than most parts of this celebrated mountain, being inhabited by this lawless tribe, who have never been brought into actual subjection by any of the Pashas. The origin of this people and their religion, if they have any, are still unknown. Like the Druses, they may possibly be a Mahomedan sect. Burckhardt mentions the Anzari sects, calling them Kelbye, Shamsye, and Mokladjye; but adds, "nothing is known of them except the names".—*Robinson's Travels, Vol. ii. p.* 68, 69.

AOD. Ar. Hind. Pers. عود is used generally in India, to designate the frankincense of the Boswellia, the Olibanum of the ancients: but throughout the east, with Arabic and Persian suffixes, it is employed to name varieties of Eaglewood.

ADOH, a district in Hindustan. See Oudh.

AODI, Hin. A tribe of Jats in the Delhi divisions of Soneput and Paniput.—*Wilson's Glossary.*

AOD-I-BAKHOOR. Ar. عودِ بُخُوْر Eagle-wood.

AOD-I-CHINI. Ar. عودِ چيني Chinese Eagle-wood.

AOD-I-HINDI. Ar. عودِ هندي Indian Eagle-wood.

AOD-I-KAMARI. Ar. عودِ قمري. Mountain Eagle-wood.

AODIYA. Hind. A thief of a tribe of thieves inhabiting villages in the Cawnpore and Fattehpur districts. They make remote excursions at particular seasons, in different disguises.—*Wilson's Glossary.*

AONTAGUNJE, a town in India, in Long. 79° 13′ E. and Lat. 28° 17′ N.

AOONLA, or ANOLA. Duk. Hind. Mar. آنوله is the Phyllanthus emblica.

AOO-PALU Tel. ఆవుపాలు. Milk.

AOOWLIA, a town in India, in Long. 82° 14′ E. and Lat. 26° 10′ N.

AORNIS, a place fixed on by the Greek dynasties for a military garrison. There were military colonies of Macedonians established at Alexandria ad Caucasum, Arigæum, and Bazira, and garrisons at Nysa, Ora, Massaga, Penceleotis and at Aornis, a mountain range, supposed to be the mountains of Mahaban in the Pir Panjal or Mid Himalayan range.—See Cyc. of Ind. Supp. ii. Kafir.

APAMARGAMU. అపామార్గము. S. or *Uttareni*, Achyranthes aspera, *L.*

APAMA SILIQUOSA. Syn. of Bragantia Wallichii.—*Brown.*

APAMEA, daughter of Artabazus, the Persian who married Seleucus. He gave her name to three towns. Koornâh, one of the three *Apameus* built by Seleucus in honour of his first wife, is situated at the point of a triangle, formed by the confluence of the rivers Euphrates and Tigris, and although now dwindled into a petty town, it was formerly a place of consequence. Koornah is situated on a low flat, with apparently a rich soil, and along the river are low banks to prevent the country being flooded. At this spot some oriental traditions have fixed the Garden of Eden.—*Malcolm's History of Persia, Vol. ii, p.* 141.—See Koornah.

APANA. See Hindoo.

APANDA or ASTYAGES, son of Isfendiar, one of the Kaianian dynasty of Persian kings.

APANG, Beng. Achyranthes aspera.

APARAJITA, Beng. Clitorea ternatea.

APARAJITA, in hinduism, a form of the goddess Bhawani. The name is probably derived from the flower of the plant Clitoria.—See Sacti. Aphrodite.

APAVARA, a king of Telingana, about A. D. 1141. See Inscriptions, p. 386.

APCHHARA. See Apsara.

APE. Eng.

Ceph	Ethiop.	Keibi	Pers.
Kephos	Gr.	Kubbi	Pers.
Kepos	Gr.	Kaki	Singh.
Koph	Heb.	Korangu	Tam.
Band'r...	Hind	Kothi	Tel.

Apes, form the sub-family Simianæ, of the family Semiadæ or Monkeys, of the natural order Primates. Apes are represented in India by two species of Simia. The ancient Egyptians are said to have worshipped monkeys, and some of them in India are still worshipped.

The various kinds of ape seem to have been made known to the Hebrews, Greeks and Romans, by specimens brought from Africa and India; those of the Hebrews probably from India, the Hebrew name Koph being almost the same as the Sanscrit Kapi. *Harris.*

APENDRA, an old name of Vishnu.

APHELANDRA CRISTATA. This shrub is grown in India, but is a native of the West Indies, with orange coloured flowers, easily propagated from cuttings.—*Mr. Jaffrey.*

APHIS, a tribe of insects, one of which of China is supposed to produce oak-galls.

APHODIUS, a genus of Coleoptera, found in Hong-Kong.

APHORISMS or SUTRA, these were the usual mode of instruction followed in the hindu liturgical books—the Vedas,—whose sacred character hindus still acknowledge. They were adopted in the fourth period of the hindu progress, about B. C. 1000, and in the Sutra, the ceremonial prescriptions were reduced to a more compact form and to a more precise and scientific system. The Aphorisms of the

Nyaya Philosophy, of the Mimansa and Yoga were re-printed in Sanscrit and English about the middle of the nineteenth century, by Professor James Ballantyne of the Benares College.—*Max Muller.*

APHRODITE of the Greeks supposed by Mr. Paterson, to be the Aparajita of the hindus. See Aparajita.

APHU? Hind. Opium.

APIACEÆ. Kyet-khyæ-ban, Burm. one of the Celery tribe, the Apiaceæ.

APICILLATED HORSE-SHOE-BAT, one of the Cheiroptera.

APIOS TUBEROSA of Canada, one of the Leguminosæ, might be introduced into India, for its edible pods.

APIS. The sacred bull of Egypt, was chosen by the priests of Memphis, for its black and white spots, and Mnevis, the sacred bull of Heliopolis, had nearly the same marks; but the Jews, in preparing their water of purification, were ordered in Numbers, ch. xix. 2, to kill a red heifer without a spot. Amongst the Egyptians, the solemnities at the burial of Apis were entirely Bacchic. The priests did not wear the nebris or deer skin, but they wore the panther skin, and carried Thyrsus staves. The sacred bull of the hindus, Nandi, the Vahan of Siva, is in black stone looking at the lingum.—*Bunsen, i.* 432. See Sacrifice.

APIS MELLIFICA, the Honey bee.

APIUM. Jav. Opium.

APIUM GRAVEOLENS. *Linn.*

Kurufs... ...	... Arab.	Common Celery...	Eng.
Kerafs	...Egypt.		

This temperate climate plant, acrid and poisonous when wild, is much cultivated wherever Europeans settle, and is grown in India, in the cold weather. Its seeds are sold as medicine in every bazaar. Its essential oil, dissolved in strong spirit, gives an essence, a drop of which suffices to flavour a tureen of soup.—*Voigt*, 20, *O'Shaughnessy*, 357.

APIUM INVOLUCRATUM, *Rox.*

Chanoo... ...	...Beng.	Ajmood... ..	...Hind
Rhadooni... ...	,,	Ajmud...	,,

Dr. Irvine (*General Med. Top, of Ajmere, p.* 124,) describes Ajmod or Ajmot, as very hot and carminative, good in dyspepsia, much used in all mesalihs, and as brought to Ajmeer from Harrowtee and Mewar: and sold at four seers for one rupee: the same author mentions Khorasani Ajmot, as very hot and carminative. Roxburgh had only seen it cultivated in gardens, in Bengal, for the seed, which they use in diet and medicine.—*Rox*, 1, 97, *Dr. Irvine. O'Shaughnessy, p.* 357.

APJOOLA, a mixed fabric of cotton and silk, made at Dacca.—See Cotton Manufactures.

APLOME GARNET.—A kind of garnet.

APLOTAXIS CANDICANS. Batula, Hind. A plant of Kaghan.

APOCYNACEÆ, a natural order of trees or shrubs including nearly one hundred genera with about four hundred species, about half of which are found in the South and East of Asia, Arabia and Ceylon in the Peninsulas of India and Malacca, Bengal, Nepaul and Java. The genera abound in plants with a milky juice and possessing acrid and other hurtful properties. One of the order furnishes the Lance-Wood of Moulmein, a tree found all over the Provinces. The Karens make bows of it, but prefer *Cassia fistula.* Mr. Mason had never met with the tree in flower, but thinks it a species of dalbergia, though it may possibly be a cassia. At another place he says, the tree which produces a timber possessing the properties of lance-wood is not uncommon in the Provinces, but it belongs to the dog-bane tribe, and is not at all related to *Guatteria virgata,* the lance-wood of commerce.—*Mason. Voigt.* See Cassia. Caoutchouc, Cerbera, Chonemorpha macrophylla, Dog-banes, Holarrhena codago, Plumieria acuminata, Wrightia tinctoria.

APOCYNEA VIMINEA. *Wall.* Syn. of Orthanthera viminea. *Wight.*

APOCYNUM FŒTIDUM. Burm. Syn. of Pæderia fetida.—*Linn.*

APOCYNUM FRUTESCENS *Linn.* Syn. of Ichnocarpus frutescens.—*R Brown.*

APODYTES GARDNERIANA, *Miers.* A small forest tree of the Central Province of Ceylon, found at an elevation of from 5,000 to 7,000 feet; not uncommon.—*Thw. Enum. Pl. Zeyl. i. p.* 42.

APOLLO of the Greeks, is supposed to be the hindu Krishna, whose favourite place of resort is described as a tract of country around Agra, and principally the plains of Muttra, where Krishna and the nine Gopia, evidently the nine muses, usually spent the night in dancing. Krishna was no doubt the Shepherd Apollo of the Hindus, and the Apollo of the Greeks was surnamed Nomios or the pastoral, and Opifer in Italy, who fed the herds of Admetus and slew the serpent Python. The Apollo of Edessa was called Monimos. He was identical at Babylon, with the Phœicnian god Esmun.—*Coleman.* See Cyc. of Ind. Sup. ii. p. 548. Kama Saraswati.

APOLLODOTUS, one of the Greek successors to Eucratides. Apollodotus and Menander alone are mentioned by classical authorities. Apollodotu sruled in Patalene, Syrastrene and Larice, about B. C. 165.

According to Colonel Tod, the Yavan, or Greek princes, who apparently continued to rule within the Indus, after the Christian era, were either the remains of the Bactrian dynasty, or the independent kingdom of Demetrius or Apollodotus, who ruled in the Punjab, having as their capital Sagala, changed by Demetrius to Euthymedia. Bayer says, in his Hist. Reg. Bact. p. 84, that according to Claudius Ptolemy, there was a town within the Hydaspes, yet nearer the Indus, called Sagala, also Euthymedia; but he scarcely doubts that Demetrius called it Euthydemia, from his father, after his death and that of Menander. Demetrius was deprived of his patrimony. A. U. C. 562. Sagala, is conjectured by Colonel Tod, to be the Salbhanpoora of the Yadus when driven from Zabulisthan, and that of the Yuchi or Yuti, who were fixed there from Central Asia in the fifth century, and, if so early as the second century, when Ptolemy wrote, may have originated the change to Yuti-media, the 'Central Yuti.' Numerous medals chiefly found within the probable limits of the Greek kingdom of Sagala, either belong to these princes or the Parthian kings of Minagara on the Indus. The legends are in Greek on one side, and in the Sassanian character on the reverse. The names of Apollodotus and Menander have been deciphered, but the titles of 'Great King,' 'Saviour,' and other epithets adopted by the Arsacidæ, are perfectly legible. The devices, however, resemble the Parthian. These Greeks and Parthians must have gradually merged into the Hindu population.—*Tod's Rajasthan, Vol.* i. *p.* 233. See Cyc. of Ind. Sup. ii. Greeks of Asia. Kabul, p. 438.

APOLLONIAS ZEYLANICA, *Thw.* A tree of the Central Province of Ceylon growing 50 to 60 feet high at an elevation of 3,000 to 4,000 feet.—*Thw. En. Pl. Zeyl. p* 253.

APONOGETON MONOSTACHYON, *Willde.*

Gheehu	...HIN.
Parua-kalanga...	MALEAL.
Kakangi... ...	. SANS.
Koti-kalangu...	....TAM.
Nama ? Ketti-gad-dalu	... TEL.
Nama-dampa...	... „

A native of shallow, standing sweet water. natives of India are fond of the roots which are nearly as good as potatoes.—*Ainslie,* 248. *Roxb.* ii. 210.

APOROSA ACUMINATA, fusiformis; latifolia; lanceolata, and Lindleyana, small trees of Ceylon.—*Thwaites,* 288.

APOSTLE is a term sometimes applied in European literature to Mahomed, but his followers only recognize the appellation of Rassul Allah, the Messenger or Prophet of God.

APPOCOVAY. TAM. Bryonia rostrata.

APPAREL, articles of apparel form a considerable branch of trade in India; and in the Madras Presidency alone the aggregate value of the Imports and Exports in the four years 1852-53 to 1865-66, amounted to Rupees 33,38,387.

IMPORTS.	1852—53 Rs.	1853—54 Rs.	1854—55 Rs.	1855—56 Rs.	Total value.	
Boots and Shoes	15,136	17,061	14,879	12,280	59,356	Imported from United Kingdom, Bombay and Bengal.
Breeches	1,705	...	...	...	1,705	Wholly from Bombay.
Buttons	2,439	2,004	3,383	3,402	11,228	Chiefly from United Kingdom.
Gloves	...	...	11,679	9,455	21,124	Do. from do. and France.
Gold thread and lace ...	67,026	78,194	1,03,997	1,87,510	4,36,727	Do. from do. Ceylon, Bengal and Bombay.
Haberdashery	37,691	50,206	59,708	32,164	1,79,763	Do. from do. Bengal and Bombay.
Hats and Caps	36,883	34,181	35,346	26,635	1,33,045	Do. from do. Bengal and China.
Millinery	20,169	38,248	24,676	19,909	1,03,002	Do. from do. Bengal, Bombay and France.
Wearing apparel	2,82,568	3,23,825	2,64,065	2,47,809	11,17,547	Do. from do. France, Bengal and Bombay.
Hosiery	1,82,178	1,59,316	1,77,144	1,63,561	6,82,199	Do. from do. Bengal, Bombay, Pegue, France, Ceylon and America.
Wearing apparel Military.	68,592	76,219	64,916	37,592	2,47,319	Do. from do. and Ceylon.

EXPORTS.	1852—53 Value. Rs.	1853—54 Value. Rs.	1854—55 Value. Rs.	1855—56 Vvlue. Rs.	Total Value. Rs.	
Boots and Shoes	9,643	17,614	26,203	14,875	68,335	Exported chiefly to Pegue, New South Wales, Bengal, Bombay, Ceylon, China, and America.
Gold thread and lace ...	...	1,289	5,217	...	6,500	Do. to Indian French Ports and United Kingdom.
Haberdashery	...	1,069	7,284	1,575	9,928	Do. to Bengal, Bassein, Rangoon, and Indian French Ports.
Hats and Caps... ...	1,271	...	1,130	...	2,401	Do. to Bombay, Ceylon, Arabian and Persian Gulfs.
Hosiery	...	...	1,765	...	1,765	Do. to Rangoon and Moulmein.
Millinery	...	7,393	...	7,303	14,690	Do. to Bengal, Bombay and United Kingdom.
Wearing apparel	15,771	29,515	54,825	40,143	1,40,258	Do. to Pegue, New South Wales, Ceylon, United Kingdom, Bengal, Bombay, and Malacca Straits.
Do. Military ...	56,215	7,398	32,982	4,892	1,01,487	Do. to Bengal, Arabian and Persian Gulfs, Pegue, United Kingdom and Malacca Straits.

APPAS. SINGH. TAM. Cakes made of rice flour, called by the English, Hoppers.

APPA SAHIB, once the ruler of the Mahratta State of Nagpore, who surrendered to Sir John Malcolm, in 1818. He succeeded to the office of Peshwa, by strangling Parsaji, an idiot. His real name was not Appah Sahib, but Mudaji. He afterwards, on the 12th of May 1818, fled from the place allotted to him, to the Sikh territories; but he ultimately died, in 1840, almost forgotten, at Judhpur.—See Bhonsla Rajas of Nagpur; Mahratta Governments in India.

APPEL. MALEAL. ആപല. Premna integrifolia.—*Roxb.*

APPLE, the common apple.

Tuffah...	ARAB.	Malus	LAT.
Melea	GR.	Seba...	PERS.
Seb...	HIND. PERS.	Seba...	SANSC.
Seo...	HIND.		

This is the fruit of the Pyrus malus, which is naturalized in several parts of India. The term apple, is applied in India to the fruits of several plants, and we have the Cashew apple; Custard apple; Love apple; Pine apple; Rose apple; Greater wood apple and Lesser wood apple, and the apple proper, Pyrus malus of England, cultivated in the higher table lands of India. The apples of Solomon's song are the quinces or the Cydonia vulgaris.

APPLE SEED OIL. Oil of seed of Pyrus malus.

APPLE-BLOSSOMED CAMELIA.—See Camellia.

APPLICARUM. TAM. Barilla.

APPRETOTTE, a town in India, in Long. 81° 55′ E. and Lat. 6° 51′ N.

APPROVERS in India are Thugs or Dacoits who have been tried and convicted as having belonged to a band of Thug murderers or dacoits, but who, having made a full confession of their crimes (in some individual cases amounting to the murders of as many as eighty persons) and having denounced their associates, have received a conditional pardon.

APPS. TAM. Hopper. See Appas.

APRACUM. TAM. TEL. Mica.

APRANG, also Rangbharat, Damlakwaypi, Hira-dakhan. A gum resin, a beautiful kind of kino, brought to Ajmere from Bombay; considered very astringent. It is given in intestinal hemorrhages and is also used in enamelling on gold; four tolahs are sold for one rupee.—*Irvine. General Med. Top. of Ajmere, p.* 126.

APRICOT, the common Apricot.

Barkuk...	ARAB.	Zard-Alu... ...	PERS.
Bakur-Kohani...	BOKHAR.	Badam Kohi... ...	„
Khubani...	HIND.	Chulu...	HIMAL.
Mish-mish	PERS.	Chinaru...	„

This fruit of the Prunus Armeniaca, is well known in India, where the tree has been naturalized. It is the Melea Armeniake of Dioscorides and the Precocia minora and Malus Armeniaca of Pliny. In China an oil is extracted from the stones. Moorcroft mentions that ten varieties are grown in Ladakh, all of them raised from seed, except one which is budded. *Dr. Royle. Birdwood, p.* 154. *Moorcroft. Darwin, Charles, M. A. F. R. S. Variation of Animals and Plants under Domestication,* 2 *Vols. Lond.* 1868

APSARA, Sansc. in hindu mythology, nymphs of Swerga, the celestial Court of Indra, celestial dancers, celebrated for their beauty. Amongst them is Rembha, the popular Venus of the hindus and some others are described to be of inconceivable loveliness. They answer to the Pari of the ancient Persians, and the damsels called in the Koran, Hur-ul-ayun, the Antelope-eyed-Huri. These hindu nymphs were produced at the Churning of the Ocean, as related in the Ramayana. Sir William Jones thus describes them in Swerga,

Now while each ardent Cinnara persuades
The soft ey'd Apsara to break the dance,
And leads her loth, yet with love-beaming glance,
To banks' of marjoram and champac shades,
Celestial genii tow'rd their king advance,
So call'd by men, in heav'n Gandharva's nam'd.

According to hindu Kshatrya belief, Kshatriya warriors slain in battle are transported to Indra's heaven by these Apsarasas or nymphs of Swerga. Thus in Manu vii. 89, it is said, 'Those rulers of the earth who, desirous of defending each other, exert their utmost strength in battle, without ever averting their faces, ascend after death directly to heaven.' And in book ii. 19 of the Nala, Indra says, ' why are no warriors slain now-a-days, that I see none arriving in heaven to honour as my guests ?'—*Coleman Hind. Myth. Sir William Jones. Hymn to India, vol. xiii. p.* 270 *and* 273. *William's Story of Nala, page* 140. See Indra. Kurma. Maha-deva ; Meru.

APSERHA, a river of Pillibeet.

APTHORPE, a general officer of the Madras Army, who saw much war service, first with the British Auxiliary Legion in Spain, under General de Lacy Evans, for which he received the order of St. Ferdinand. Served in the first China war of 1841-42, and second Burmese war of 1854, for which he received medals.

APTA. Mar. Bauhinia parviflora.

APTIMUN, also *Amr-bel*, the yellow coloured parasite creeper, so often seen on babul trees, all over India, and very common at Ajmere. The entire plant is used in native medicine, in "munj," or muzil, a diluent form of medicine, employed preparatory to giving a purge. The Aptimun Wilayti is an extract of the Aptimun plant from Bombay, and used in the same way as the plant : one tola is sold for eight annas.—*Irvine, General Med. Top. of Ajmere, page* 125.

APYLLANTHEÆ. See Liliaceæ.

AQUA FORTE.—Port. Nitric Acid.

AQUAIL, a town in India, in Long. 93° 30′ E and Lat. 24° 43′ N.

AQUALPURA, a town in India, in Long. 91° 49′ E. and Lat 24° 31′ N.

AQUA MARINE. Seing. Burm. Zamarrud. Pers. At the Madras Exhibition, a good specimen of aquamarine, or beryl, was contributed by Lieut. Puckle from Mysore : other samples of long reed like crystals were forwarded by the Nellore Local Committee ; small pieces of Amethyst, Tourmaline, Rock crystal, Agate and Cornelian were exhibited from Masulipatam. Perhaps the Aquamarine of the South of India may become more valued. Prismatic corundum or Chrysoberyl, is found among the Tora Hills near Rajmahal on the Bunas in irregular rolled pieces, small and of a light green colour. These stones are sold as emeralds by the natives, under the name of "punna," but the native dealers are aware that they are softer than the real emerald of India, which is generally green coloured sapphire. It is this green sapphire, the oriental emerald, which is so often seen in Burmah, but beryls (Seing, Burm) and emeralds are brought from the north of Ava, though the localities in which they are found are not known.

AQUAR, a town in India, in Long. 86° 41′ E. and Lat. 26° 11′ N.

AQUARZENTE, It. Brandy.

AQUATIC BIRDS are largely brought to the markets of the principal towns of India, at certain seasons of the year, ducks, teal, &c., and may be procured in abundance.—See Water Fowl. C. of I.

AQUEDUCTS in South Eastern Asia, are known only as those underground tunnellings, designated throughout Persia, Beluchistan and India, as the Karez. See Karez.

AQUILARIA AGALLOCHA, Roxb.

Yellanjuj...	... ...Ar.	Agur...	... ...Hind.
Ayaloogi...	... ... „	Ud-i Hindi...	Hind. Pers.
Ayulugin...	... ... „	Ud-i Kamari...	„ ????
Ak-yau ...	... Burm.	Ayal-urchi...	... Pers.
Ugoor or Ag'r...	Beng.	Ud-i Samudri.	Hind. „ ??
Aloes-wood tree ...	Eng.	Agallochum...	... Lat.
Aloe-wood tree......	„	Kalamba...	... Malay.
Black Agallocha ...	„	Gahru	... „
Agallochum-wood...	„	Kaya gahru...	.. „
Eagle-wood tree ...	„	Agaru.. ...	... Sans.
Calamback... ...	... „	Ag'ru ch'ka...	... Tel.
Agila-wood tree ...	„	Ag'ru	... „
Bois d' Aigle...	... Fr.	Krishna agaru ...	„
A'g'r... ...	... ...Hind.		

This is described by Roxburgh as an immense tree, a native of the mountainous tracts E. and S. E. from Sylhet, in Lat. 24° 25′ N. It is supposed to be one of the trees that furnish the eagle-wood of commerce. Roxburgh says there is no doubt that the real Calambac or Agallochum of the ancients is furnished from this tree, and in his time small quantities of the fragrant resinous wood were imported from the Eastward, but the imported articles were always considered inferior to that from Sylhet. He was then inclined to consider the Garo de Malacca as this Aquilaria but A. ovata Willde as a distinct species. Agallochum verum India mittit praestantissimum." Dr. Buchanan Hamilton, in his investigation of the Eastern Frontier of Bengal, met with this plant at Goalpara, (v. Wall. Cat. 7,250.) and considered it to be the Agallochum officinarum, as this name is affixed both to his specimens and drawing. Dr. Wallich also obtained specimens of the same tree from Silhet, by means of his plant collectors, (v. Cat. 7,250. v.); and Dr. Royle. was informed by Dr. Lindley, that he also was decidedly of opinion, that it produces the eagle or aloe-wood of commerce, an opinion of the more value, as Dr. Wallich, had opportunities of visiting the countries Eastward of Bengal. (Royle. Ill. Him. Bot. p. 172.) Dr. Royle, thus coincides, and adduces much valuable evidence in support of Roxburgh's opinion : at the same time that he admits that a wood of similar properties may be afforded by other trees, especially the Aloexylum agallochum of Lourciro, referred by DeCandolle to the Leguminosæ. A kind of aloe wood was moreover said to be produced by the Excoecaria agallochum, of the natural order of Euphorbiaceæ, but this is not now concurred in. A third kind is imported from Malacca and Siam. In Persian works, three kinds of aloe wood are described under the names of *Aood i-samudree, Aood-i-Hindee, Aood-i-kimaree*, probably the Al-cemericum of Aboo Hanifa, (*Royle.*) Dr. Roxburgh mentions his having received plants from Malacca of the supposed eagle tree, and that they were in a flourishing condition : Dr. Roxburgh obtained it from Sylhet. Dr. Mason also is of opinion that the A. agallocha or Aloexylon agallochum produces the fragrant substance called lign-aloes, or wood-aloes, which is offered for sale in all the bazaars on the Tenasserim Coast, and is the produce of a tree that grows on the Mergui Islands. It is imported into Mergui by the Selungs, who, as they profit from the trade, endeavour to keep all in ignorance of the tree from which they obtain it. Gesenius says the Hebrew and Greek names are " derived from the Indian name of the tree, agil, Sanscrit agaru and aguru." Besides agaru, the Sanscrit word, we have agalu and aggalu, which come near the " Indian name agil," and the Greek aggollochun. There is, however, another Sanscrit and Pali word with which Gesenius does not appear to have met, lauhat, and this is manifestly the parent of aloe, and by transposition, not uncommon in Hebrew, of the Hebrew name also. The chief consumption of aloe wood is in Siam and China, where it is burned in the temples. Merat and DeLens inform us it was used in Napoleon's imperial palaces as incense. The wood is heavy, yellowish white, shaded with green ; fibrous, spongy, and resinous, its taste aromatic, its odour in combustion very agreeable.—*O'Shaughnessy, pages* 274-75. *Dr. Mason's Tenasserim.—Malcolm's Travels in the East, vol. i. p.* 191. *Royle's Ill. Ind. Bot.* 172. *Roxb. ii.* 423. *Voigt.* 305. *Vegetable Kingdom,* 629-30. *Mad. Ex. Jur. Reports.*

AQUILARIA MALACCENSIS, *Lam.*

A. ovata of Botanists.
Bois-d'Aigle of Malacca.

This tree has a whitish timber. It is a native of Malacca, China ? and Ceylon ? Roxburgh seems inclined to regard this as identical with A. aggalochum of Sylhet, but Voigt and the Vegetable Kingdom recognise it as a separate species, *Voigt* 306, *Veg. Kingdom,* 629. *Roxb. ii.* 422.

AQUILARIA OVATA, Syn. of A. Malaccensis.

AQUILARIA SECUNDARIA.

This tree has a white and inodorous timber, but, when diseased, it secretes a resinous matter said to be the true Eagle-wood

AQUILARIA SINENSIS, Spreng. is named as a tree of China.—*Voigt. p.* 306.

AQUILEGIA VULGARIS. *Linn.* Varieties are cultivated in India, as ornamental flowering plants. The plant belongs to the Ranunculaceæ, and is very common in all the alpine and temperate parts of the Himalayas, and all through Europe and Persia. It is a very variable plant and has about twenty synonims. A canadensis and A. parviflora being alone distinct. *H. f. et T. p* 44. *Hog. Veg. King.* 18. *Voigt.*

AR. ஆறு. Tam. A river ; a common postfix in Tamulian countries, as Pal-ar, Adyar, Pennár, &c., Milk river, &c.

AR. An ancient word entering very extensively into the language of the Indo Germanic races. It seems to be connected with the original term for one of the first of avocations, namely, ploughing and the plough. It is, therefore, an old root, and as, amongst that branch of the Aryan race, husbandry was held in high estimation, we find it, according to Pictet, connected with the words Erin, Elam, Arionistus, Arminius, Oriri. Up to the present day the Emperors of China mark the commencement of the annual cultivation, by personally ploughing a field, and, in the western hemisphere, the answer will be remembered which was paid by the Delphic Oracle to Myson, when Anacharsis inquired who was the wisest man in Greece, " He who is now ploughing his fields." Into the Indo Germanic languages, the word has been adopted, in various ways, connected with the earth, the fields, ploughing and field implements. Thus we have

Ploughing.		*Earth.*		*A plough.*	
αροω ...	Gr.	Ira...	...Sans.	αροτρον...	...Gr.
Aro ...	...Lat.	ερα ...	...Gr.	Aratrum...	...Lat.
Arjan ...	...Gothic.	Airtha...	...Goth.	Ardr...	...Norse.
Orac ...	...Pol.	Earth ...	...Eng.	Arad ...	...Welsh.
Aran ...	...High Ger.	Arz...	...Ar.	Hara...	...Hind.
Araun ...	...Irish.				
Ear ...	...Old English				
A Field.		*Harvest.*		*Generally.*	
αρουρα ...	...Gr.	αρτος...	...Gr.	Ear...	...Eng.
Arvum ...	...Lat.	Harvest	...Eng.	Arable	... "
Oracz ...	...Pol.			Harrow	... "
				Aromatic	... "
				Arya...	...Sans. Agriculturist.

Professor Max Muller, to whose learned researches so much is due, mentions all this when he tells us that this root AR, means *to plough*, to open the soil. From it we have the Latin *ar-are*, the Greek *ar-oun*, the Irish ar, the Lithuanian *ar-ti*, the Russian *ora-ti*, the Gothic *ar-jan*, the Anglo-Saxon *er-jan*, the modern English *to ear.* Shakespeare says (Richard II. III. 2),. " to ear the land that has some hope to grow." From this we have the name of the plough, or the instrument of earing: in Latin, *ara-trum ;* in Greek, *aro-tron* ; in Bohemian, *oradto* in Lithuanian, arklas in Cornish, *aradar* ; in Welsh, *arad* in Old Norse, *ardhr.* In Old Norse, however, *ardhr*, meaning originally the plough, came to mean earnings or wealth, the plough being, in early times, the most essential possession of the peasant. In the same manner the Latin name for money. The act of ploughing is called *aratio* in Latin ; *arosis* in Greek: and he believes that *arôma*, in the sense of perfume, had the same origin, for what is sweeter or more aromatic than the smell of a ploughed field? A more primitive formation of the root *ar* seems to be the Greek *era*, earth, the Sanskrit *irâ*, the Old High-German *ero*, the Irish *ire*, *irionn*. It meant originally the ploughed land. Besides, the simple *ar* in Old Norse means ploughing and labour, and the Old High-German *art* has likewise the sense of ploughing.

Αρουρα and *arvum*, a field, would certainly have to be referred to the root *ar*, to plough.

The English word *plough*, the Slavonic *ploug*, has been identified with the Sanskrit *plava* ship, and with the Greek *ploion*, ship. *Muller's Lectures, p.* 242. *Taylor's Words and Places. Mullers Chips.* 1864.

ARA, Scythic, a mountain, occurs in Aravalli, Arabudha, Aravidha: it is not to be found in any Sanscrit Dictionary with this signification; yet it appears to be a primitive root possessing such meaning as we have Ar-boodha, ' hill of Boodha ' Aravalli, ' hill of strength. Ar is Hebrew for ' mountain,' (qu. Ararat ?) Oros in Greek ? The common word for a mountain in Sanscrit, gir, is equally Hebrew.

ARAB. The people known by this name are spread from Syria to the Indian Ocean, They are chiefly in tribes and those who occupy the country around Jerusalem, are the Anezi, Shammar, Mowali and Salhan. But the country of Arabia, in which they chiefly dwell is in the S. W. of the continent of Asia and is about 1,430 miles long and 1,200 miles broad. It is recognised in Europe as having three divisions, A. petrea, A. deserta, and A. felix. Its general aspect is that of an elevated land, with considerable ranges of hills. Its mountains, Horeb and Sinai, are part of Jab'l-ul-Tur range, with Hor or Seir, now called Jab'l Harun or Aaron's mountain. The population, vaguely estimated at ten millions, are chiefly engaged in pastoral pursuits, and consist of many independent tribes. In this respect it is in the same state now as in ancient times, when the Cushite and Joktanite occupied A. felix, when the Ammonite and Ishmaelite dwelt in A. deserta, and the Moabite, Edomite, Nabathœan, Midianite and Amalekite in A. petrea. The population of Mecca, its chief town, is about 18,000. Arab-ul-Mostaraba, or mixed Arabs, the lineal descendants of Ishmael, occupied the Hijaz and amongst their descendants was the tribe of Koresh. From the impulse and unity given by Mahomed the world saw them issue from their naked deserts. At all times impetuous, their energies were then concentrated to enforce belief at the point of the sword, and the prophecies of Daniel ch. viii. 24 and 25, were fulfilled, and within twenty years they mastered Syria, Palestine, Egypt and Persia, the conquest of Persia being merely a prelude to further extension in the east. Abu Bakr was Khalif from A. D. 632 to 634. Umar from A. D. 634-643 (A. H. 13-23). Under the khalifat of Umar A. H. 15 or 16 but without his knowledge a military expedition set out from Oman (Umant) to pillage the coasts of India. It appears to have proceeded as far as Tana in Bombay. But Umar expressed great displeasure. About the same time, Hakam, brother of Usman, sent an expedition against Baroach and against Debal, under his brother who failed disastrously. Umar disliked and forbad naval expeditions, a prohibition which was only relaxed in the time of Muawiya. In A. H. 22 Abdullah, son of Amar, invaded Kerman and took Kuwashir, the Capital. Mahomed Kasim by arms and policy conquered the entire valley of the Indus, he handed his conquests to Temim, who governed for 36 years till the downfall of the Ummiade Khalifs, on which event the Arabs were expelled by the Sumra race in A. D. 750 and all the Arab conquests in India were restored to the Hindus. Sind, from Bhakkar to the sea, was ruled by the Sumra Rajputs till the end of the 12th Century. At an early date after the Hejira they established a factory at Canton, and their numbers were so great by the middle of the 8th Century that in 758, they attacked and pillaged and fired the city and fled to their ships. They and their descendants from mixed blood occupy a very prominent position in the western parts of Peninsular India and numbers of them are spread throughout the Eastern Archipelago : but in their own country, the towns on the sea coast have a large admixture of other Asiatic races, and as Arab bedouin life is ever changeable, quarrels and wars have greatly modified the tribes, dispersed some, and amalgamated others, so that at the present day, the Mozeina and Suleim alone maintain their individuality from the time of Mahomed.—*Elliot's India.* See Arabia. Islam. Mahomed.

ARABA, WADI, a deep valley running betwixt the top of. the gulph of Akaba, and the Dead Sea, 105 miles in length, and about 10 in width, summit level above the sea 495 feet. *Wilson's Lands of the Bible, Vol. i. Lond. Geo. Trans.*

ARAB DOW. See Boat.

ARABIA. This Peninsula, with the Indian ocean on its South, the Persian Gulf on its East and the Red Sea on its West, has numerous fertile valleys amidst mountains, and great sandy desert tracts. The ancient Greek and Roman geographers divided Arabia into A. Felix, A. Petræa and A. deserta. The first nearly corresponds to the modern Yemen, but including Mahra and Hadramaut : the second, the modern Hejaz :—the third extending N. E. from A. Felix as far as the Euphrates. Some oriental authors have included the whole Peninsula, under Yemen and Hejaz : others into Yemen, Hejaz, Nejd, the Tehama and Yemann. Hadramaut, Mahra, Shehr and Oman have also been reckoned independent provinces by some, while others include them in the two great divisions, Yemen and Hejaz. "The present Arabians, according to their own historians, are sprung from two stocks : Kahtan, the same with *Joktan* or *Yoktan*, the son of Eber, and Adnan descended in a direct line from Ishmael, the son of Abraham and Hagar." —(Sale's Koran, Preliminary Discourse, p. ii.) But Yoktan, according to Ch. Bunsen, was one of the two sons of Nimrod and was the chief of the first Arabian emigration that proceeded Southwards. Tradition, he says, points to the mountains of Armenia as the birth place of the Arab and Canaanitish races. It is supposed that they travelled along the banks of the Tigris into Mesopotamia, from which a portion of them commenced a great migration Southwards, the result of which was the foundation of the primeval kingdoms of Southern Arabia, the kingdoms of the Adites in Yemen, who believe that they came from the sacred North, and once lived in a glorious garden of the earth which they are to restore. In the matter of their present location, Dr. Latham, in his Ethnology, mentions that Hejaz, is peopled by the descendants of Ishmael, but the inhabitants of Mekkah and Jedda, consist of pilgrims and their descendants of African, Persian. and Turk-blood. In Southern Arabia, Yemen, Hadramaut and Oman, the people are more or less Himyarite in blood, history and civilization. Those of the towns of Mokah, Sanai, Rodda and Loheia, are the more civilized and the desert and hill Arabs are rude and ignorant, one of them so rude in speech as to be named the Ben-i-Kalb, children of dogs—and the Berekede a branch of the Asir are said to prostitute their wives like the Jakuri Hazara. At Hasek is the tomb of the prophet Hud, the fourth in descent from Shem. At the entrance of the Persian Gulf, the pirate coast begins and extends 300 miles northwards. The southern tribes of the Peninsula of Senai, are more or less fishermen. The early Arab religion was Sabæanism, a worship of the heavenly bodies, mixed with idolatry, but with Mahomed commenced the Arab conquests, their creed, science and literature. At present, the Arabic alphabet is in use amongst the Turks, Persians, Malays, some of the people of India and Africa. It was however of Syrian origin. The Arab family is mahomedan, except the christian Arabs of Malta. The Arabs of the south are descendants of Kahtan the Yoktan of the Bible, and those of the North, of Adnan of the blood of Ishmael. Nejd or Central Arabia, is Syrian and arranged into divisions called "*Suks.*"—(*Latham's Ethnology.*") The people occupying that Peninsula, are however regarded by Captain Burton as of three distinct races : viz., the aborigines of the country, who have been driven, like the Bheels and other autochthonic Indians, into the eastern and south-eastern wilds bordering upon the ocean : second, a Syrian or Mesopotamian stock, typified by Shem and Joktan, that drove the indigenæ from the choicest tracts of country; these invaders still enjoy their conquests, representing the great Arabian people. And thirdly, an impure Egypto Arab clan-well personified by Ishmael, his son Nebajoth and Edom (Esau, the son of Isaac)—that populated and still populates the Sinaitic Peninsula. (*Burton's Pilgrimage to Mecca*, 41-45.)

The indigens or autochthones, he says, are those sub-Caucasian tribes which may still be met with in the province of Mahrah, and generally along the coast between Muscat and Hadramaut. The Mahrah, the Jenabah, and the Gara especially show a low developement, for which hardship and privation only will not satisfactorily account. These are "Arab el Aribah," for whose inferiority oriental fable accounts as usual by thaumaturgy. Dr. Carter has remarked the similarity between the lowest type of Bedouin and the indigens of India, as represented by the Bheels and other Jungle races.—(*Burton's Pilgrimage to Mecca, Vol. iii. p. 29.*) The principal immigrant race, he says, are the Noachians, a great Chaldæan or Mesopotamian clan which entered Arabia about B. C. 2,200, and by slow and gradual encroachments drove before them the ancient race and seized the happier lands of the Peninsula. This race would correspond with the Arab el Muta-Arrabah or Arabicised Arabs of the eastern historians. The third family, an ancient and a noble stock, dating from B. C. 1,900, and typified in history by Ishmæl, still occupies the Sinaitic Peninsula. These Arabs, however, do not, and never did, extend beyond the limits of the mountains, where they are still dwelling in the presence of their brethren. Captain Burton, (iii. 31) considers it highly probable that the Copts, or ancient Egyptians, were "half-caste Arabs;" a mixed people like the Abyssinians, the Gallas, the Somali, and the Kafirs, an Arab graft upon an African stock. Hence the old Nilitic race has been represented as woolly-headed and of negro feature.—*Burton's Pilgrimage to Meccah, Vol. iii. p* 31.

The people of Arabia have been alternately aggressive conquerors and conquered, and Sharpe in his history of Egypt is of opinion that the troglodytic Arabs held a strip of country of about four hundred miles in length on the African coast of the Red Sea, separated from Ethiopia by mountains and deserts. They were a wandering unsettled race of people, described by their neighbours as savages, (*Diod Sic. lib. iii.* 33,) whose wars arose for right of pasture rather than for ambition or property. They fought with slings and darts, and out-ran horses in their speed; they lived in caves, and killed the aged, the lame and the sick. Other tribes, however, more civilised (*Pliny, lib. xii.* 42) afterwards traded with the Sabaeans of the opposite coast and supplied the Egyptians with the myrrh, balsam, olives, topaz and metals which their country or their trade produced. Like their neighbours the Egyptians, the Troglodytæ worshipped images and animals, particularly the turtles peculiar to their shores, while the more civilised tribes were worshippers of one God. During the earlier centuries, all these Arabs were easily conquered by the Egyptians; but some of them inhabited Ethiopia, under a settled form of government, and then conquering Nubia and harrassing the Thebaid.—(*Sharpe's History of Egypt, Vol. i. p.* 104-105.)

In the time of Abraham there occurred a contest between five chiefs of South Canaan and Arabia Petræa and four princes of Southern Babylonia, but these five Canaanitish chiefs were merely a portion of peoples in revolt from Elam, to which, also, Arabia Petræa, Petra (Gen. xiv. 15-7) and the adjacent cities was subject There seems no doubt that at another period the Pharoahs had Egyptian colonies in Arabia, for many centuries, Nubia and the Peninsula of Arabia were the hereditary dominions of the Pharoahs It would thus seem that they have been alternately aggressive and conquered. An Arab dynasty in Babylon seems to have lasted about 215 years, and to have been intermediate between the dynasties of the Chaldees and of the Assyrians and Ninyads. The Hyksos or Shepherd kings who ruled in Egypt, are described by Manetho as united Arabian tribes and Palestinian tribes, and they appear to have reigned from B. C. 2554 to about B. C. 1535. The kingdom of Yemen, says Gibbon, has been successively subdued by the Abyssinians, the Persians, the Sultans of Egypt, and the Turks; the holy cities of Mecca and Medina have repeatedly bowed under a Scythian tyrant; and the Roman provinces of Arabia embraced the peculiar wilderness in which Ishmael and his sons must have pitched their tent in the faces of their brethren. Yet these exceptions were temporary or local; the body of the people have escaped the yoke of the most powerful monarchies; the arms of Sesostris and Cyrus, of Pompey and Trajan, could never achieve the conquest of Arabia; the present sovereign of the Turks may exercise a shadow of jurisdiction, but his pride is reduced to solicit the friendship of a people, whom it is dangerous to provoke, and fruitless to attack. (*Gibbon's Roman Empire, Vol. ix. p.* 2291.) To Europe however, the races of Arabia seem to have been but little known beyond its boundary. They are supposed to be the Hagarenes, alluded to in Scripture, the descendants of Ishmael, also known as Ishmaelites or Sarracenes—the Arraceni of Pliny, but the Ishmaelites never penetrated beyond the northern parts of the Peninsula. *It was not until after* the *Hijra* of *Mahomed, that the races* in Arabia poured forth their warriors. They began their later conquests in A. D 622 and spreading into Egypt and Susiana and Persia. In 706 the Arab conquerors first crossed the Oxus, under the command of Katiba, who introduced Islamism into the countries of Bokhara, Samarcand, and Ferghana. (*Markham's Embassy, p.* xii.) and though their empire was so early broken up and divided as A. D. 936, their arms and the arms of those who embraced mahomedanism, have penetrated to China in the East and to Tartary, France and Morocco on the North and West. The peoples who adopt this faith have their natures changed and become in various degrees fanatics, for the revolution caused by Mahomed and his new faith was great. Many of the people of Arabia still continue to practise ancient rites, and Captain Burton mentions that in most places, even in the heart of Meccah, he met with debris of heathenry, prescribed by Mahomed, yet still popular,—(*Burton's Pilgrimage to Meccah, Vol. i. p.* 5.) Colonel Pelly, in writing of the Arabs of the Chaab tribes, says that it is necessary, when considering the Arabs, to distinguish between a series of grades towards civilization, in which they may, at present, be found. The Bedouin, is wandering, pastoral, tent-loving, disdaining to trade, yet avaricious, and willing to sell his ghee, his mutton, or his horse, and always found in wide and open wastes, unpressed upon by adequate exterior power. Yet, even the Bedouin bends to circumstances. He accepts the region allotted for his pasture grounds. Plunder has its laws; and vengeance its chivalry. If he will not trade, he still has wants; and suffers the presence of a Jew or Saleebah as the Affghan suffers that of the hindoo. A little higher in the scale, as with the Chaabs, is the original wandering pastoral Arab, in a district where he is pressed upon from without, and where boundless plunder and roaming are restrained by exterior force. The Arab there partly turns to agriculture, and for this he must in some degree settle. Society harmonizes to this level. Trade is possible. Corn is sold. Abbas are woven and exported. Dates are planted. The appetite for trade grows by what it feeds on. Huts of reeds replace tents; and one sees in their feeble efforts at reed ornamentation, and in their rough twisting of thick reed rope for their bunds, the possible germ of some architectural efforts. Yet higher in the scale the Arab is flourishing as an experienced and wealthy merchant in a town, or administering a well-ordered and comfortable rural district. Passing among these people, society is seen in its transitional state towards civilization." The Beni Szakhr are a tribe of free Arabs. According to Burckhardt, they rove in the plains from the fourth to the fifth station of the Hadj, and thence westward towards the mountains of Belkaa. They were employed by the Pasha of Damascus for the defence of the caravan against the other tribes. They live by the breeding of camels, for the use of the pilgrim caravan, of which they have a very considerable number. Though smaller than the *Anadolian*, Turkman, or Kurdy camels, they are better able to bear heat and thirst than the latter, are chiefly of a light or reddish gray colour, with very little wool about their necks. (*Robinson's Travels, Vol. ii. p.* 169 *and p.* 183.) The *Aenezi*, according to Burchhardt, are the most powerful *Arab* nation in the vicinity of Syria, and if we add to them their brethren in Nedjd, they may be reckoned one of the most considerable bodies of Bedouins in the Arabian deserts. They are nomades, in the strictest acceptation of the word, for they continue during the whole year in almost constant motion. In spring, they approach the fountains of Syria, and form a line of encampment extending from near Aleppo to eight days' journey to the south of Damascus. Their principal residence, however, during that time is the Haouran, and its neighbourhood, when they encamp near and among the villages, while in the more northern country, towards Homs and Hamah, they mostly keep at a certain distance from the inhabited grounds. In these parts, they spend the whole summer seeking pasture and water, purchase in autumn, their winter provision of wheat and barley, and return after the first rains into the interior of the desert. They are the only true Bedouin nation of Syria, the other tribes in the neighbourhood of this country having more or less degenerated in manners, and several being reduced to subjection; while the free-born Aenezi is still governed by the same laws that spread over the desert at the beginning of the mahommedan era.—(*Robinson's Travels, Vol.* ii. *p.* 238.) The greatest part of the western Arabia shore is in the possession of the Joasmi Arabs, a licentious band of pirates, who until recently continued to obstruct by their depredations the commerce of the Persian Gulf. Their principal rendezvous was *Ras-ul-Khyma*, a town about seven miles South-West of *Rums.* The Arabs of the sea-coast are doubtless becoming more alive to the power of the many European nations whose vessels now traverse their seas, but they are in their nature, the same as their brethren of the inland plains. The ocean is their desert, and they fancy they have a similar privilege over it, unlike the tribes of the desert, however, they add cruelty to their love of plunder.—*Overland Journey, Vol. ii. p.* 283.

The Beni Khaled, in Niebuhr's time, were one of the most powerful tribes of Arabia: they conquered the country of Lachsa and advanced to the sea.

The Kiab tribe of Susistan in Persia rarely encamp, but in Susistan near the principality of Havisa were five different considerable tribes of the independent Bedouins Beni Lam were a great tribe between Korne and Baghdad, on the banks of the Tigris. The Montesidsi or Monfik tribe, north of the desert, occupied all the country from Korne to Ardje, on both sides of the Euphrates, and they migrate to summer and winter quarters.

Beni Hakim, a tribe eastward from the Euphrates, are given to husbandry.

The Khas-aal, are a powerful tribe of husbandmen on the east of the Euphrates.

In Oman, are the Beni Hasan, Beni Abu-Ali, Beni Geneba, bedouins, also the Beni Gafari; the Yemani and El-Arabi; the most powerful and illustrious of the tribes of Oman. Robinson, writing of those on the north, says that the dress of the women is a wide cotton gown of a dark colour—blue, brown or black, fastened by a leathern girdle. Over their heads they wear a kerchief, called *shauber* or *mekroune*, the young females having it of a red colour, the old, black. All the women puncture their lips and dye them blue; this kind of tattooing they call *bestoum.* Round their wrists they wear glass bracelets of various colours; and silver rings both in the ears and nose. Both in summer and winter they go barefooted. The Bedouin men and women are very tawny; their children, however, at their birth and for some time afterwards, are fair, but of a livid whiteness. (*Robinson's Travel's, Vol. ii. p.* 184.) *Lieutenant Wellsted*, writing in Oman mentions that in their persons the females are tall and well made, with a roundness and fulness of figure, not, however, approaching to corpulency. Their complexion is not darker than that of a Spanish brunette, and we may infer that this is their natural colour, since, excepting in the morning and evening, those who reside in the oases rarely leave their date groves, and in the towns they preserve their complexions with the same care. On the other hand, the Bedouin women, who are constantly exposed to the rays of the sun, are very swarthy; and the same is observed of the men, although the children are equally fair at their birth.—*Wellsted's Travels, Vol. i. p.* 353.

There is, indeed, but little doubt that the mohammedan ladies in Oman enjoy more liberty, and at the same time are more respected, than in any other eastern country. During civil commotions, they often take a part in public affairs, and in some instances have displayed the utmost heroism.

Amidst the most striking features in the condition of this interesting and singular race stands their Sheikh government, which, in its constitution and operative effects, is a political phenomenon in the history of nations.—*Wellsted's Travels, Vol. i. p.* 354.

Burton tells us that Sherifs and other great men sometimes bind a white turban or a Cashmere shawl round the kerchief, to keep it in its place. The Aakal varies in every part of the country. Here it is a twist of dyed wool, there a bit of common rope, three or four feet long. Some of the *Arab* tribes use a circlet of wood, composed of little round pieces, the size of a shilling, joined side by side, and inlaid with mother-of-pearl. The Eastern Arabs wear a large circle of brown wool, almost a turban in itself. In Barbary, they twist bright-coloured cloth round a rope, and adorn it with thick golden thread. As a rule, the Sheikhs and their subjects, are born to the life of shepherds or soldiers. The greater tribes rear many camels, which they either sell to their neighbours, or employ them in the carriage of goods, or in military expeditions. The petty tribes keep flocks of sheep.

It is the difference in their modes of life that constitutes the great distinction between the different tribes. The genuine Arabs disdain husbandry, as an employment by which they would be degraded. They maintain no domestic animals but sheep and camels, except perhaps horses. Those tribes which are of a pure Arab race live on the flesh of their buffaloes, cows, and horses, and on the produce of some little ploughing. The former tribes, distinguished as noble by their possession of camels, are denominated Aleu-el-Aleaær; and the second Moædan. The latter are esteemed a middle class, between genuine Arabs and peasants. Niebuhr heard some tribes mentioned contemptuously, because they kept buffaloes and cows. The Moædan transport their dwellings from one country to another, according as pasturage fails them, so that a village often arises suddenly in a situation where, on the day before, not a hut was to be seen.—*Niebuhr's Travels, Vol. ii. p.* 159-160.

In all parts of the South of Europe, Western Africa, Western and Southern Asia, are descendants of the Arab conquerors. Their first emigration from Arabia is supposed to have taken place about 700 years before the time of Solomon, and the Abyssinians appear to be of Arab descent. They were converted to christianity in the fourth century of the christian era, and in the sixth they re-crossed over to Arabia, to avenge the persecution of christians by a Jewish ruler, conquered Yemen and marched to the gates of Mecca, where they were overthrown two years before Mahomed was born. Such partial immigrations and conquests have left tribal bodies from other races in the land. Amongst these may be named the Salibah (Salib, Ar. cross). Lieut. Col. Pelly saw some men of this tribe at Koweit and elsewhere. They worship the cross (Saleb) and perform many ceremonies, more nearly allied to the corruptions of Asian Christianity than to Islamism. Men and women dance round a sort of maypole. They wear a carter's smock, coming down to the feet, and which, like a boy's pinafore, ties behind. They possess a beautiful breed of donkies, which they ride, without girths, upon a saddle made like a cottage wooden chair bottom. They squat on this seat, and twist their legs over a pummel peak, crossing them over the donkey's neck. They seem to prise their saddles, as an Arab does his mare; and would not sell them. They seemed a merry quick witted, disreputable lot, with retrouse noses, and Irish features. They stood, with eyes twinkling (legs and hands always on the fidget) and pelted him with the peelings of their fun. He tells us, also that this strange people live on the flesh of the gazelle, which they shoot, and dress themselves in its skin. They wander about amongst, and are friends with, all the Arab tribes, and yet remain entirely distinct. What their religion is, he cannot tell. They adopt some of the forms of the Mahomedan faith, but at feasts and marriages they raise the cross as a sign of rejoicing. They are the best guides for the desert, knowing where water is to be found, and the position of the various tribes. Those of them he saw seemed much more intelligent than the Arabs, and they have more of a European than an Asiatic cast of countenance. They come mounted on large white donkeys, bearing much the same things as the Bedouins for sale. The saddle is peculiar. There is first a pad in front and behind an upright piece of wood. To those two pieces of wood hollowed out are attached side by side so as to form a hollow seat. They sit in this hollow seat, cross their legs like tailors with an anterior upright between their thighs, and their feet on either side of the donkey's neck. They use no bridle.

The cities are none of them large. According to Captain Burton, the population of El Medinah is from 16,000 to 18,000, and the Nizam troops in garrison 400. Mecca contains about 45,000 inhabitants, Yambu from 6,000 to 7,000, Jeddah about 2,500, and Taif 8,000.

Koweit is a compact town of about 15,000 inhabitants, built on a promontory of loose sand-stone covered with sand, and to illustrate the commercial habits and treatment of the bedouins, it may be mentioned that vessels of 50 or 60 tons bear the produce of countries at the northern end of the Persian Gulf from Bizea, Dillum, Ghonawah, Bunder Reegh, and the smaller seaport towns round to Koweit, for trans-shipment to bugalows, for conveyance to Bombay. In the same way goods from India are brought here in large bugalows and distributed amongst smaller ones for conveyance to the smaller ports.

Teak is imported and used for ship building, and a large number of horses, the best exported from Arabia, are sent from there to Bombay.

The inhabitants of the desert are allowed to enter Koweit, on depositing their arms at the gate; and it has been the custom from the time of the present Sheik's grandfather to feed, not only all who enter, but the poor of the place besides.

The Bedouins assemble daily in a place outside the gate, and with them there is a good sprinkling of the Slubba. The Arabs come, generally, mounted on camels, bringing ghee and truffles with donkeys bearing brushwood and camel's dung. Sometimes when hard up, the Arab will bring in his horse for sale, but good ones are seldom got in that way. The expedient of constructing reservoirs in which to store rain-water has prevailed in Arabia from a very early date. These are generally found in localities devoid of springs, and dependent on the winter rains for a supply of water during the summer months. The most remarkable instance on record is the great dam of Mareb, built about 1,700 years before the Christian era: this doubtless suggested similar reservoirs in other parts of Arabia, and the neighbouring coasts of Africa, which have usually been subject to it. All the travellers who have penetrated Yemen describe many such in the mountainous districts, and others exist in the islands of Saad-ed-din, near Zeilah, in Kutto, in the Bay of Amphila, and in Dhalak, near Massowah.

It was this which made Yemen, many centuries before the time of Moses, for a long period the paradise of Arabia, and which laid the foundation of that mighty and civilized empire, which like the glory of the Fayoom, disappeared from off the face of the earth when the dams were broken through. The Pharoahs had established Egyptian colonies in the country, for many centuries but the reports of travellers, during the past 70 years establish the fact that a few thousand years of neglect and devastation have brought the country into its present state of desolation. There is no want of either brooks or springs or cultivable soil, but the former are wasted in morasses or lost in the sand, and the soil is washed away by the violence of the torrents. Southern Oman is but thinly peopled, for the whole number, including women and children, does not exceed fifty thousand; but the northern districts are far more populous.—*Wellsted's Travels, Vol. i. p.* 383.

The Bedouins, who occupy the Great Western desert of Oman have neither houses nor tents, but live under the shade of trees.—*Wellsted's Travels, Vol. i. p.* 365.

Of precious stones, Arabia has the topaz, the onyx, and a stone which seems to be cornelian, and is called Yemani or akik. The agate is found near Mocha, emeralds in the Hijaz, beryls and cornelians near San 'a' and Aden; malachite in the cavern of Beni Salem; also jasper, amethysts, and turquoises, in the environs of the village of Salwa about three days journey from Medina. Diamonds, the sardonyx, and the topaz, were obtained from this country in former times. Of metals, silver, iron, lead, aud copper, are met with in different parts of Arabia, and the last, recently in Oman. Gold is mentioned by the ancient writers, and in all probability it will be found when the country is better explored, but it is not known to exist in Arabia at present. Bitumen is obtained in Arabia Petræa, and in Arabia deserta, lignite coal.

(Niehbuhr, Beschreibung des von Arabien, p. 142.
Niehbuhr, vol. i. p. 326.
Pliny, XXXVII, XXIII.
Pliny, XXXVII., XV. Ibid, VI. Chap. XXXIV.
Niehbuhr, p. 142.
Lieut. Wellsted, Vol. i. p. p. 112, 113.)

It is understood that a gray coal is found a little way inwards from the river, in the line between Deir and Damascus. Colonel Chesney did not, however, actually find it; but a letter was received on the subject from Ibrahim Pasha, and the Arabs described it particularly. (Euphrates and Tigris, Col. Chesney, Vol. i. p. 567.) Stones of a kind, are laid on fires made of Camels dung, to increase the heat.

Another particular kind of stone, called tafal by the Arabs, is found near Mount Sinai; it is brittle, with the appearance of pipe clay, and it serves the poor instead of soap, it is also useful in taking stains out of cloth, and in refreshing the skins of asses, being rubbed over them for this purpose in summer time —*Burckhardt's Travels, in Syria, p.* 394, 488.

(*Euphrates and Tigris, Colonel Chesney, Vol. i. p.* 368.) The Arabs are not so scrupulous as the Turks and Persians about their women; and though they have the harem, or women's part of the tent, yet such as they are acquainted with come into it.—*Mignan's Travels, p.* 16.

The dances of the Arabs, the Debki, as it is called, resembles in some respects that of the Albanians, and such as perform in it are scarcely less vehement in their gestures, or less extravagant in their excitement, than those wild mountaineers. They form a circle, holding one another by the hand, and moving slowly round at first, go through a shuffling step with their feet, twisting their bodies into various attitudes. As the music quickens, their movements are more active; they stamp with their feet, yell their war-cry, and jump as they hurry round the musicians. The motions of the women are not without grace; but as they insist on wrapping themselves in their coarse cloaks before they join in the dance, their forms, which the simple Arab shirt so well displays, are entirely concealed. *Layard Nineveh, p.* 119, 120. *Baron de Bode's Travels in Luristan, and Arabistan,* 11, 198. *Skinner's Overland Journey, ii.* 283. *Burton's Pilgrimage to Mecca. Sharpes Hist. of Egypt. Kennedy on the Origin of Languages. Markham's Embassy, p xii. Mignan's Travels, p.* 66, 67. *Blair's Chronology Tables,* 33, 39. *Calmet's Dictionary, Lieutenant Colonel Pelly's Memoir. Robinson's Travels, ii.* 183, 238. *Layard's Nineveh, p.* 119, 120. *Niebuhr's Travels, Vol. i.* 283, *ii.* 168, 177. *Wellsted's Travels, Vol. i. p.* 345, 388 .*Col. Chesney's Euphrates and Tigris, Vol. i.* 368. *Bunsen's Egypt, Vol. ii.* 215, 285, *iii.* 328-9, 350, 362, 569, 431, 440, *iv.* 413, 639. *Playfair's Yemen. Sale's Koran.* For further notices of Arabia, its history, people, and products. See Hindu or India. Inscriptions, p. 37. Joktan. Iran. Kosi or Chara. Katch, Kutch or Cutch. Kasi. Kattyawar. Kelat, p. 488. Kenissat-ul-kiamat. Kishm Island. Kouyunjik. Kurdistan. Ladrone Islands. Lur Mesopotamia. Now-roz. Pearls. Perim. Saugor Island. Neibuhr. Rain. Rawlinson. Saba. Serpent. Squinanthum. Sumali. Valentia. Viswamitra. Wahabi. Kelat. p. 494. Semitic races. India, p. 835. India Inscriptions, p. 371. Iran. Jews-Kattiyawar. Khiraj. Mahomed. Archipelago.

ARABIAN GULF, is a term often applied to the Red Sea.—See Kulzum: Musiris.

ARABIAN HORSES, are latterly but little seen in India. The demands of India have become greater, and a larger horse with greater power has been more needed, to meet the wants of Government for its heavier ordnance and the requirements of the community for the conveyances which are now so commonly in use, by all Europeans and the wealthier natives: Also, the prices demanded for the Arab horse are beyond the means of the people, and it never was in great request except as a riding horse.

ARABIAN SEA, that part of the Indo-Afric ocean on the south of Arabia, ARABIAN SEA, including Red Sea, and Persian Gulf, has 6,000 miles of Sea Coast. The evaporation averages ¼ of an inch only or about 39 cubic inches of water annually raised —*Maury.*

ARABIC LANGUAGE, as written in the koran, is the most developed and richest of the semitic tongues. It is not now spoken in any part of Arabia, as there written. Probably it never was so, any more than the Latin, the English, the German or Italian have ever been spoken as written in their respective bounds, and Burton quotes Clodius, in his "Arabic Grammar: as saying that the dialectus Arabum vulgaris tantum differt ab eruditâ, quantum Socrates dictio ab hodiernâ linguâ Græca." But it must be remembered that the Arabs divide their spoken and even written language into two orders, the "Kalam Wati," or vulgar tongue, sometimes employed in epistolary correspondence, and the "Nahwi," a grammatical and classical language. Every man of education uses the former, and can use the latter. And the koran is no more a model of Arabic (as it is often assumed to be) than "Paradise Lost" is of English. Inimitable, no man imitates them. *Burton's Pilgrimage to Meccah, Vol. iii. p.* 330.

Niebuhr, also, tells us that the invention of the modern characters which are very different from the Kufic, is ascribed to a vizier. The Arabians, Persians and Turks, write *Arabic* in sets of characters differing in several particulars from one another. They have also different modes of writing for different forms of business, each of which has its particular name. (*Niebuhr's Travels, Vol. ii. p.* 261.) Neither the Arabic nor the Persian letters are sufficiently numerous to compose the pronunciations of many foreign tongues, and they are ill suited to record proper names as in geograply. Much of the value of Abul Fazil's records is lost from this cause. *Burton's Pilgrimage to Meccah, iii.* 330:—*Niebuhr's Travels, ii.* 261, *Tod's Travels,* 360-1.—See Kashmir. Kirkook. Kudrat halvassi. Kurdistan. Sanskrit. Koran. Semitic races.

ARABI MUTCHI. Duk. Mullet Fish.

عربي مچھي

ARABIN, the soluble parts of gum tragacanth, and gum Senegal. *See Gums and Resins.*

ARABIS, of the ancients, the modern Purali, a river in Las, the modern Bela the ancient Arma-bel. *Elliott.*

ARABIS, Chinensis, cress, several species are grown as flowering plants. *Riddell. Voigt.* 67. See Huleem.

ARABISCHE GUMMI. Ger. Gum Arabic.

ARAB-SHAH, author of a life of Timur. He lived at Samarcand in A. D. 1422.

ARAC. Fr. Arack. It. Port. Arrack.

ARACA. Maleal. അടക്ക Betel-Nut.

ARACAN, as defined by the British, included all the highland and lowland territory, which extends from the head of the Naf estuary in Lat. 21° 10 N. down to Cape Negrais in Lat. 16° 2' the Yuma range of mountai being the eastern boundary.

Under British administration, it includ four provinces and is now part of Briti Burmah. *Aracan* proper, in 20° and 21" N. L. is the district of Akyab. It is call by the natives Ra khoing pyee, or Ra khoi country. There are three principal rivers, t Mayn, the Koladan and the Le Myo. T inhabitants of Aracan proper are the budhi Burmese known there as Rakhoing-tha, the K la mahomedan from Bengal and the Dom al from Bengal and employed as pagoda slave in the plains; and in the hills, the Khyou tha, the Kume or Kwe-me the Doing-nuk, t Mroong. Its chief ports are Chittagong a Akyab, and it is ruled by a Commissioner un a Chief Commissioner.

ARACEÆ, the Arum tribe, about 1 species of which occur in S. E. Asia in genera Aris-æma, Amorphophallus; coloca Homalonema; Scindapsus, Pothos. A co Pistia, Calla and Arum. *Voigt* 684-692.

ARACHINOOR, a town in India in Lo 79° 18' E. and Lat. 11° 38' N.

ARACHIS HYPOGEA *Linn. W. and A.*

Syn

A. Africana, *Loureir.*

A. Asiatica, *Loureir.*

Mung-phalli ...	Beng.	Bui-Mung	Hind.
Atke'kule	„	Mung-phalli ...	„
Myæ-bal	Burm.	Kachang-tanah...	Malay.
Manilla Gram ...	Eng.	Kachang China..	„
American Earth-nut	„	Kachang Japan..	„
Ground-nut ...	„	Büchănäka. ...	Sans.
Earth-nut	„	Kachang-gorung.	Sum.
Manilla-nut ...	„	Ver Kadale ...	Tam.
Pea-nut	„	Vella Kadale ...	„
Valaiati-mung ...	Duk.	Veru Senagallu..	Tel.
Bui Sing	„	Veru Sanaga ...	„

The Arachis genus of plants belong to Leguminosæ.

This species, indigenous to South Amer is extensively cultivated in the Peninsul India for the sake of the oil yielded by seeds. It is found in abundance in the ba of the Tenasserim Provinces, where it is sumed in large quantities by the natives, and with the exception of the cocoa-palm, it is, of all the oil-yielding plants, the most extensively cultivated in the Malay Archipelago. It is said that there are two varieties of this plant grown in Malacca, also in Java, one with white, the other with brown seeds. It is there known as the Katjang oil. The Arachis hypogea is particularly remarkable from the manner in which its fruit is produced. The young fruit, instead of being placed at the bottom of the calyx, as in other kinds of pulse, is found at the bottom and in the inside of a long slender tube, which looks like a flower stalk. When the flower has withered and the young fruit is fertilised, nothing but the bottom of this tube with its contents remains. At this period a small point projects from the summit of the young fruit, and gradually elongates, curving downwards towards the earth. At the same time the stalk of the fruit lengthens, until the point strikes the earth, into which the now half grown fruit is speedily forced, and where it finally ripens in what would seem a most unnatural position. When mature, it is a pale-yellow wrinkled oblong pod, often contracted in the middle, and containing two or three seeds the size of a hazel-nut. The fruit is generally toasted before it is eaten, is extremely palatable and is considered a valuable article of food in Africa and the tropical parts of Asia and America, and sold in the streets and bazars of every town in India. In flavour the nuts are as sweet as an almond.

The Oil.

Vayr-cuddala-yennai.	Tam.	Willayeti-mung-phulli-ka tel	Hind.
Manilla noona	...Tel.	Bhoysing ka-tel	„

It is, however its oil which is the most valuable in commerce, and in the neighbourhood of Calcutta, it is used for pharmaceutical purposes, and especially for lamps and machinery. A great quantity of the oil is annually exported from the Madras territories, as will appear from the following account of this valuable product extracted from the Juries' Reports :—"In the year 1848-49, 37,000 gallons were shipped, but in the two following years the exports exceeded 100,000 gallons. It had however fallen to 57,207 gallons in 1852-53. It is said to be used for adulterating gingely oil in North Arcot, where it costs from Rs. 1-8 to 2-12 per maund. In the Nellore District, the seeds are procured at Rs. 1-8 per maund, and in Tanjore about 200 acres are cultivated, producing annually 75 candies of oil, at Rs. 2-6 per maund. Its value in London, in January 1855, was £47-10 per ton." Simmonds has remarked upon this useful product :—" This oil is good for every purpose for which olive or almond oil is used. The value of ground-nut kernels in London is about £61, 10s. per ton and of the oil £42 to £43 per ton. For ordinary purposes it is quite equal to olive oil.—Roxb. iii. 286. *Riddell Manual of Gardens: Voigt*, 243. *Hog. Veg. King*. 276. *Crawfurd Dic. p.* 13. *O'Shaughnessy* 304. *Simmonds Veg. Prod. Broadwood's Bombay Prod. Ainslie*, 234. *M. E. Reports Cat. Ex.* 1862 *Mason's Tenasserim*.—See Ground Nuts, Manilla Nut, Moong Phallee, Earth Nut, Ground Nut Oil ; Oil.

ARACHOSIA of the classics is the country of the Rachos, with whom the immigrant Arians came in conflict, and have been turned to the fearful Rakshasas, of popular hindu belief. According to General Ferrier, Arachosia can be distinctly shown, by the Greek measurements, to have been at the ruins of Shahr-Zohauk or Olan Robat, between Kilat-i-Ghil-jie and Mokoor.—*Ferrier, p.* 323. According to Ch. Bunsen, however, to the South of Kabul, is Haraquaiti, denominated the fortunate, the Harauwatis of the cuneiform inscriptions, the Arachosia of the classics. It was the tenth people whom the Arians conquered. It was here that the Arians commenced to inter their dead, which the Zend-avesta strictly prohibits as being the greatest desecration of the sacred earth.—*Bunsen, iii. p.* 464-485. *Ed. Ferrier's Journ. p.* 323. See Arians. Greeks of Asia. Kabul, p. 434, 437. Sudra.

ARACHOTIA, mentioned on the coins of the Indo-Greek rulers, was Candahar. See Kabul, p. 436, 7 and 8.

ARAD. Guz. Phaseolus mungo.

ARADHYA, a class of brahmins who profess the Jangam creed but adhere to their caste views. In other sects of hindus, the brahmin uniformly takes precedence of other castes. But among the Vira Saiva, he is degraded beneath all others. Hence there is a perpetual feud between the Aradhya Brahmin and the Jangam who (unless at funerals where all are bound to assist), treat these bramins with contempt —*Brown on the Creed and Customs and Literature of the Jangams, p.* 8. See Jangams. See also Wilson's Glossary.

ARADOONDA. Tel. Capparis horrida.

ARAFAT, anciently called Jabel Ilal, الال the Mount of Wrestling in Prayer, and now Jabal ur-Rahmat the "Mount of Mercy," is a low pointed hillock, of coarse granite split into large blocks, with a thin coat of withered thorns, about one mile in circumference and rising abruptly from the low gravelly plain—a dwarf wall at the southern base forming the line of demarcation—to the height of 180 or 200 feet. It is about a six hour's march, or twelve miles, on the Taif road, due east of Meccah. Near the summit, is a white-washed mosque with a minaret, looking like a small obelisk : below this is the whitened platform, from which the preacher, mounted on a dromedary, delivers the sermon, to be present at which is an essential part of the mahomedan pilgrimage to Meccah.—*Hamilton's Sinai, Hejaz, and Soudan, p.* 131. *Burton's Pilgrimage to Meccah, Vol. iii. p.* 252, 257.

ARAFURAS See Alfoeren.

ARAGOONDA, a town in India, in Long. 79° 2′ E. and Lat. 13° 17′ N.

ARAH, a town in India, in Long. 75° 5′ E. and Lat. 21° 24′ N.

ARAH also AULUK BAGHDADI. Arab. آلک بغدادي. Mastic.

ARAHAR. Beng. Pigeon pea. Hill Dhall. Cajanus indicus

ARAHOOLY, a town in India, in Long. 74° 12′ E. and Lat. 16° 0′ N.

ARAIL, a town in India, in Long. 81° 50′ E. and Lat. 25° 22′ N.

ARAK عرق. ARAB DUK. HIND. MALAY. RAKHUI. RUS. SP. Arrack.

ARAK also **RAK**. DUT. Arrack.

ARAKA. See Hindu or Hindoo.

ARA-KADU. TAM. *Lit.* the jungle on the river; the modern Arcot. See Kurumbar.

ARAKI. AR. The arrack of Egypt and Turkey. The word means any spirit; عرق. In Egypt asking for a "syrup of gum," one obtains a "a dram" of Araki. The favourite way of drinking it, is to swallow it neat, and to wash it down with a mouthful of cold water. Taken in this way it acts like the "petit verre d'absinthe." Egyptian women delight in it, and Eastern topers of all classes and sexes prefer it to brandy and cognac, the smell of which, being strange, is offensive to them.—*Burton's Pilgrimage to Meccah, vol. i. p.* 196. —See Arrack.

ARA KOORA. TEL. Marsilea quadrifolia.

ARAK SOOS. ? ARAB. ? Liquorice Juice.

ARAK TREE, according to Wellsted, quoting Leon de la Borde and Forskal, two trees are known in Arabia by this name, one, in the interior of Oman, the Salvadora Persica, the Cissus arborea of Forskal, the other shorter and smaller is the Avicennia nitida. —*Delille*; *Voy. en Arabie de Leon la Borde. Wellsted's Travels, Vol. i. p* 416.

ARAL. The height of the plateau, above the sea of *Aral*, nowhere exceeds six hundred feet.—*Vigne's A personal Narrative, p.* 425.

ARALI. TAM. Nerium odorum. Ait.

ARALIACEÆ, the Ivy family, a natural order of plants, generally trees or shrubs, several genera of which, Panax; Dimorphanthus; Aralia and Hedera, occur in India. Yoksun, in Sikkim, occupies a very warm sheltered flat and about it many tropical general occur, such as tall bamboos of two kinds, grasses allied to the sugar-cane, scarlet *Erythrina*, and various *Araliaceæ*, amongst which was one species whose pith was of so curious a structure, that Dr. Hooker had no hesitation in considering the then unknown Chinese substance called rice-paper to belong to a closely allied plant. The Chinese rice-paper, had long been known to be cut from cylinders of pith which has always a central hollow chamber, divided into compartments by septa or excessively thin plates. It was only within the last few years that the above supposition has been confirmed, by Sir William Hooker receiving from China, specimens of the rice-paper plant itself, which very closely resembles, in botanical characters as well as in outward appearance of size and habit, the Aralia Sikkim plant. The natives of Sikkim collect the leaves of many Aralias as fodder for cattle, for which purpose they are of the greatest service in a country where grass for pasture is so scarce: this is the more remarkable since they belong to the natural family of ivy, which is usually poisonous. The use of this food however gives a peculiar taste to the butter. In other parts of Sikkim, fig leaves are used for the same purpose, and branches of bird-cherry, a plant also of a poisonous family, abounding in prussic acid. The only Aralia occurring in S. E. Asia, is A. papyrifera. Others of this genus are well known in America: and the young shoots and roots of Dimorphanthus edulis are used as food in China and Japan.—*Hooker Him. Jour. Vol. i. p.* 359. *Hog's Vegetable Kingdom*, 390.

ARALIA EDULIS, Syn. of Dimorphanthus edulis.

ARALIA PAPYRIFERA.

Rice Paper Plant..... ENG.—Tung-tsau.........CHIN.

The source of the Rice Paper of commerce continued long a matter of doubt, but it is now equally certain that it is produced from the Aralia papyrifera and it has since been described by several authors, amongst others Dr. Bennet, and Sir John Bowring. The plant is cultivated in China and Formosa, for the commercial product, known as the rice paper of commerce, which is largely consumed in the provinces of Canton and Fokian, and it is estimated that 30,000 dollars worth of it are annually made use of in Fu-chu-fu alone, where every lady wears artificial flowers made out of it: one hundred sheets, each about 3 inches square can be bought for three half pence. The pith is sometimes 1½ inch in diameter. It is not grown from seed, but from young shoots; when these appear above ground early in spring and are a few inches high, they are carefully separated from the parent roots and transplanted into pots in which they remain until about a foot high, when they are removed to land prepared for them. They are said to attain their full growth of 10 or 12 feet at their tenth month, they are cut down, the twigs and leaves removed, and the stems left to soak for some days in water, to loosen the bark and wood and facilitate the removal of the pith. This last after being cleaned and made into a cylindrical shape, is cut into convenient lengths and is now ready for the hand of the paper cutter, who, with a sharp broad bladed knife, makes a slight longitudinal incision in the cylinder of pith, which is then turned round gently and regularly on the edge of the knife until the whole available material is planed off in thin even slices. Much care and dexterity are requisite to produce sheets of even thickness.—*Bennet, p. p.* 299, to 304: See Paper-Rice and Rice Paper, C. of I.

ARALIE, Malayal, a tree about forty feet in height, and two feet in diameter; used by native carpenters of Malabar for planks in vessels, and said by them to be a valuable wood. —*Edye. Mal. Can.*

ARALI-VAYR. TAM. Root of Nerium odoratum.

ARALOO. CING. Terminalia chebula; Myrobalan.

ARAM, the original Highland, south west of Armenia (Arminn); the country between the sources of the Euphrates and Tigris, and Mesopotamia proper is Aram Nahrain. The Aramæans, were a Semitic race of highlanders who first settled on the upper part of the Euphrates and Tigris districts, and then passed through Mesopotamia proper (Aram of the two rivers), the low land (where is Mash-Mons Masius) which falls gradually towards Syria, afterwards called Aram. The name of Uz, in Nejd, proves that its off-sets extended as far as North Arabia. The Aramaic tribes, according to Ch. Bunsen, are the historical nations of Syria; Aram, Mesopotamia and Babylonia, speaking Syrian in the west and the so-called Chaldaic in the East. In the gradual diffusion of mankind, the Western Provinces of Iran seem to have fallen to the share of the Aramæans and Elamites—and the Shemitic people and language displaced the Cushite. From their primitive language two distinct branches sprung, the original Arabic, with the Musnud, Koreish and other dialects of that tongue, being one, and the Aramaic, the other. The latter had two grand sub-divisions, from one of which, known as the Western Aramaic, were derived the Amharic, Syriac, Hebrew, &c. &c., and from the other or Eastern Aramaic, came the Syrian, Babylonian and Chaldean tongues. From its monosyllabic construction the Eastern seems to be more ancient than the Western Aramaic, and it appears likewise to be the root of the Zend, Pehlevi, Sanscrit and other dialects in use throughout a portion of the territory along which it had spread Eastwards. Aram is the latest name of Syria.—*Bunsen, Vols. iii. and iv.* See India, p. 314. Iran; Babel, Mareb; Semitic Race.

ARAM-NAHRAIN, is the Syria between the rivers, of Gen. xxiv, 10 and Deut. xxiii, 4. The greater part of what was called Mesopotamia, in latter times, constituted the territory of ancient Babel, and was the Aram Nahrain. The same territory in Gen. xxviii, 2, is called Podan-Aram, or Champagne Syria, both of which designations agreed with the description of the country given by Strabo.—*Colonel Chesney's Euphrates and Tigris, p.* 118. *Bunsen, Vols.* iii. and iv. See Aramæans. Babel.

ARAMANDA. అరమంద. TEL. Eugenia bracteata, *R.* ii 409.

ARAMBURE, M. d' a French Officer of note under Law, during the Carnatic wars.

ARAMBA, in Kattywar, held by the Badhail race, who, along with the Waghers of Dwarica, were long the terror of the neighbouring seas. It is probably the Aramraw of the maps, in Long. 69° 15′ E. and Lat. 22° 27′ N.

ARANA-TANAH. Coal.

ARAND. SANS. ARANDI. SANS. Ricinus communis. Castor oil.

ARANELLAH, a dark brown coloured wood of Travancore, specific gravity 0·645 used for building common houses.—*Frith.*

ARANELLI. TAM. அரெநெல்லி. Cicca disticha.

ARANG. MAL. Charcoal.

ARANGO. GUZ. Chussaee. HIND., large rough cornelian beads, of various sizes and shapes, made in Cambay, and formerly extensively used in the African slave trade.—*Faulkner.*

ARANGOLE PASS, it leads from Tinnevelly to Travancore.

ARANKOWAL, 'the lotus of the desert,' from *aranya* (Sanscrit), 'a waste,' and *comala* (pronounced *kowal*), 'a lotos:' correctly it should be written *arancomala*; but the pronunciation is as above.

ARANY, a town in India, in Long. 83° 13′ E and Lat. 18° 29′ N.

ARARAH, a town in India, in Long. 77° 20′ E. and Lat. 23° 58′ N.

ARARAT. Aghri Dagh or Mount Ararat is in height about 16,200 feet. In the last volume of his 'Cosmos' Humboldt records the height of Demavend at 9,715 feet, which is above 1,785 feet under the height attributed to it. According to Humboldt, Ararat is only 17,112 feet high. General Monteith, F. R. G. S., who passed three years at the foot of Mount Ararat, used many means to ascertain its elevation, and made it 16,000 feet above the level of the Araxes—This is the Ararat of modern Geographers, in the province of Erivan. At a distance, it has a resemblance to a ship. It is called by the Armenians Mountain of the Ark, and by the Persians Mountain of Noah; Aghridagh being the name given to it by the Turks; and the Armenians call it *Macis*: but all unite in revering it as the haven of the great ship which preserved the father of mankind from the waters of the deluge.—It is called by the Arabs also Jabl-ul-Judi and by the Armenians Massissar, or Mountain of the Ark. Berosus and Alexander both declare that in their time it was reported that some planks of the Ark remained on this hill, at the date of the accession of the Abbasside Caliphs, A. D. 749.—*Porter's Travels, i.* 183. *General Monteith's Report.* See Iran.

ARAS, the modern name of the ancient Araxes, the Awerma of the Purans. This ancient river is now called Kum Feroz. It laves the foot of the rock Istakhr. The snowy Ardekan mountains are the same with those which presented so formidable a barrier to Alexander's progress, and by whose slopes he descended into Persia, in his advance on Persepolis. Towards the north of Armenia, runs the Araxes, with its numerous tributaries. This river which at its commencement, owing to its many affluents, bears the Persian appellation of Hazara, springs from the side of the Bin Gol, or mountain of thousand Lakes, about 30 miles south of Erzerum, and nearly in the centre of the space between the eastern and western branches of the Euphrates. Its course, from its first spring near Jebel Seihan, is almost N. E. for about 145 miles through Armenia; when it turns eastward, being then near the frontier of Kars: this proximity continues for 110 miles. The sources of the Aras and those of the north branch of the Euphrates are about 10 miles from one another. According to Pliny (lib. VI. c. 9) those sources are in the same mountain and 600 paces asunder. In modern times, the north-eastern districts, along the banks of the *Araxes*, intervening between Aderbijan and Georgia, have been in general subject to the sovereigns of Persia.—*Malcolm's History of Persia, Vol. ii. p.* 212. *Journal of the Royal Geo. Society, Vol.* vi. *Part ii., p.* 200. See Aras also Bend Amir. Fars. Iran. Tigris.

ARASA-MAR'M. TAM. Ficus religiosa.

ARASA-NAR. TAM. A fibre obtained from the Ficus religiosa.

ARASHAM. See Hindoo.

ARASHTRA. SANS. or the kingless, the republican defenders of Sangala or Sakala. They are the Adraistæ of Arrian, who places them on the Ravi. They were known by the several names of Bahika, Jartikka and Takka, from which last is the name of their old capital of Taxila or Takka-sila as known to the Greeks. The people still exist in considerable numbers in the Panjab Hills, and their alphabetical characters under the name of Takri or Takni are now used by all the hindus of Kashmir and the northern mountains from Simla and Sabathoo to Kabul and Bamiau.—*Elliot.* See Chandra Gupta.

ARASINA-GURGI. CAN. Garcinia pictoria. See Gamboge Butter also Oil.

ARATI. TAM. A hindu ceremony for warding off the evil eye. See Curcuma longa.

ARATNI. SANS. The short ell measure.

ARATTAS. See Arasee. Chandragupta.

ARATY, a town in India, in Long. 73° 18' E. and Lat. 13° 7' N.

ARAUCARIA EXCELSA. R. Brown. Dombeya-excelsa. Lamb. Colymbea excelsa. Spreng. The Norfolk Island Pine grows also in New Holland, New Caledonia, Botany Island and Isle of Pines. It is a majestic tree attaining to a height of from 60 to 228 feet, with a circumference of 30 feet. Its wood is useful for carpenters in door work, but is too heavy for naval purposes, as spars. Admiral Keppell says that this tree is not so lofty as the Altingia excelsa, but is of the same quality and is used for the same purposes: the two trees are supposed however by botanists to be identical. —*Voigt, Keppell's Ind. Arch. Vol. ii. p.* 282.

ARAUCARIA CUNNINGHAMII. G. A. shrub of New Holland.

ARAVA The Dravida people commonly called Tamil who speak the Arava or Tamil language. See Dravida. India. Tamul.

ARAVALLI. A chain of hills connected by lower ranges with the western extremity of the Vindya mountains on the borders of Guzerat, and stretching from S. W. to N. E up to a considerable distance beyond Ajmir, in the direction of Delhi. The range divides Rajputanah into two nearly equal parts forming the division between the desert on the west and the central table land. It would be more correct to say the level of the desert, for the south-eastern portion, including Jodpur, is a fertile country. Except this tract, all between the Aravalli mountains and the Indus, from the Sutlej or Hysudrus on the north to near the sea on the south, is a waste of sand, in which are oases of different size and fertility, the greatest of which is a round Jessalmir. The narrow tract of Cutch intervenes between the desert and the sea, and makes a sort of bridge from Guzerat to Sind. Central India is the smallest of the four natural divisions. It is a table land of uneven surface, from 1,500 to 2,500 feet above the sea, bounded by the Aravalli mountains on the west, and those of the Vindya on the south, supported on the east by a lower range in Bundelcund, and sloping gradually on the north-east into the basin of the Ganges It is a diversified but fertile tract. The *Patar*, or plateau of Central India, is distinct from the Vindhya to the south and the Aravalli to the west, and its underlying rock is trap. Aravalli means the hill of strength, and these hills have afforded protection to the most ancient sovereign race in the east or west—the ancient stock of the Suryavansa, the Heliadæ of India, or children of the sun, the Princes of Mewar, who when pressed retired to its fastnesses, only to issue again when occasion offered. The people who occupy the Aravalli, are the Meena, mountaineers, a robber predatory race. The hills are rich, also, in mineral products, and, enabled the Mewar family long to struggle against superior power and to raise those magnificent structures which ornament their kingdom. The mines are royalties; and a monopoly. "An-Dan-Kan" is an expression, which comprehends the sum of sovereign rights in Rajasthan, being allegiance, commercial duties, mines. The tin-mines of Mewar were once very productive, and yielded, it is asserted, no inconsiderable portion of silver: but the caste of miners is extinct, and political reasons, during the Mogul domination led to the concealment of such sources of wealth. Copper of a very fine description is likewise abundant, and supplies the currency; Surma, or the oxide of antimony, is found on the western frontier. The garnet, amethystine quartz, rock crystal, the chrysolite, and inferior kinds of the emerald family are all to be found within Mewar.—*Elphinstone's Hist. of India, Vol. i. p. 2. Tod's Rajasthan, Vol. i, p.* 1012-13. See Hindoo. Inscriptions. Lat.

ARAXES. See Aras.

ARAYA-ANJELI. MALEAL. അരെടയ അഞ്ഞിലി. Antiaris saccidora.

ARAY KEERAY. TAM. அரை கீரை. Byttneria hervacea.

ARBA, a town of Ganjam where much sugar is made.

AR-BAND. HIND. SANS. The waist-cloth or dhoti of the hindus, passed between the thighs.

ARBELLA, an ancient city, now called Erbil.—*Vignan's Travels, p.* 334.

ARBOL DE LECHE. PORT. Cow-Tree.

ARBOR ALBA. The leaves of this tree, furnish a portion of the cajeput oil of Commerce. Arbor Alba, is merely a translation of the two Malay words, Kaya-putih. See Cajaputi.

ARBOR EXCŒCANS. RUMPH. Syn. of Excœcaria agallocha. *Linn.*

ARBOR RADULIFERA. See Flindersia Amboinensis.

ARBREA, a city of ancient Persia. See Fars.

ARBUDA, is supposed to be Mount Aboo on the Aravalli, the races occupying it were subdued by the conquering Arians. See Hindoo, p. 260.

ARBUTHNOT, WILLIAM URQUHART, fifth son of Sir William Arbuthnot, who was created a baronet, whilst holding the Lord Provostship of Edinburgh, on the occasion of George IV.'s visit to the city in 1821. He was born in 1807, went to Madras in the Civil Service, from which he retired and went into business, as a merchant at Madras. He returned to England in 1858, and was nominated a member of the India Council.

ARCA. SANS. one of the names of the sun.

ARCA ANTIQUATA. A shell of the Indian seas, of the tribe Polyodonta.

ARCABA HU PHALA. Sanscara. In some MSS. this is written Arcabhagabala, Arca Bahoota and Arcabaghabala. It is, in hindu astronomy, the arc which a planet describes during that part of the equation of time, which arises from the inequality of the Sun's motion in his orbit: being an equation to which all the planets are subject, but the motion of which it differently affects. —*Edward Warren's Kala Sanhita.*

ARCANETA. SP. Alkanet.

ARCARPUS WOOD. See Calico Printing.

ARCA TORTUOSA. A shell of the tribe Polyodonta.

ARC ENDU SANGAMA. SANSC. The instant of true conjunction of the Sun and Moon.—*Warren's Kala Sankita.*

ARCH. In India, flat arches of stone and brick are not uncommon. In Burmah, Captain Yule discerned two of brick, in windows in the Dhamayangyee temple at Pagan, where no suggestion of European or Indian aid could have helped. There is one flat stone arch in the northern gate of the fort and another in a tomb, at Kurnool. There is one in the mediæval building of Roslin Castle, and in the magnificent Saracen gateway of Cairo, called Bab-el-Fitoor.—*Yule's Embassy, p.* 48.

ARCH of CHOSROES, is the modern Tak-i-Keera, which marks the site of the ancient Ctesiphon. See Tigris.

ARCHA, in Hinduism, objects of worship, as images, &c. See Sri Sampradaya.

ARCHEBIUS, one of the successors of Alexander, about B C. 155, who succeeded Antialcidas in the kingdom of Lysias, in the Paropamisidæ. See Greeks of Asia.

ARCHEOOLE, a town in India, in Long. 76° 0′ E. and Lat. 27° 12′ N.

ARCHER FISHES. The Chelmon rostratus. *Linn.* (Chætodon rostratus Shaw), is, according to Sir E. Tennant, the Archer fish of the fresh waters of India, on seeing a fly settle over head, on a leaf, it propels a drop of water and brings it down. See Chætodon toxotes.

ARCHERY, in Sanscrit, dhanuroidya, is always put for Military Science in general. Archery was the predominant branch of the Military art among the hindus, as is evident from this use of the term, and from all descriptive accounts of heroic education. Rama, his sons, the Pandavas, Ayus, and all other princes, are represented in the Ramayana, Mahabharat, and all poems and plays, as making archery a principal part of their education, furnishing a remarkable analogy, in this respect, to the practice of the ancient Persians and Scythians. Throughout South Eastern Asia, the bow has almost disappeared, the only people using it constantly in war and for the hunt, being the Andamaners—but at the annual "langar" of the Nizam of Hyderabad, there are still to be seen a few soldiers in the procession, armed with bows.

ARCHIPELAGO, in South Eastern Asia, are three great groups of Islands to which this term is applied, the Mergui Archipelago, the Johore Archipelago and the Eastern Archipelago.

The Eastern Archipelago extends over a space of more than 8000 miles, and consists of an immense labyrinth of Islands, among which are at least twenty countries of considerable size, and one which nearly equals Europe in extent. The cluster of islands and islets, scattered in irregular profusion over the Southern Ocean, commencing at the further extremity of the Bay of Bengal, forming this wonderful Archipelago, stretches eastward far into the Pacific, through 50 degrees of longitude, while in breadth it extends through 31 degrees of latitude. It comprises islands, and groups of islands, inhabited by races differing widely in character. It is not exposed to the extremes of heat. The air is cooled by constant currents; and the monsoons, regularly recur, blowing over the ocean and over forests and swamps which remain in a state of primitive nature. Abundant rains fertilize the soils, and produce a magnificence of vegetation which no country but Brazil can rival. It has been, and still to some extent continues, the theatre of prodigious volcanic action, to which it owes much of its unequalled beauty and fertility; for ashes and scoria, if they blast and destroy for a time the luxuriant tropical flora, are afterwards the basis, and become the cause, of a most exuberant vegetation. In Java there are forty-six volcanic peaks, twenty of which still occasionally emit vapour and flame. A great part of the archipelago, indeed, forms part of a vast volcanic area extending into the very centre of Asia. These eruptive forces must have operated in remote ages with inconceivable violence, and even in modern times, the great eruption of Tomboro, in the Island of Sumbawa, about 200 miles from the eastern extremity of Java, is a notable example. This volcano had been for some time in a state of smouldering activity but in April 1815, it burst forth with tremendous violence and did not cease to eject lava until July. The sound of the incessant explosions was heard in Sumatra, distant 970 geographical miles, in a direct line; and at Ternate, in the opposite direction, at a distance of 720 miles. Out of a population of 12,000 in the province of Tomboro, only twenty-six individuals survived. On the side of Java, the ashes were carried to a distance of 800 miles, and 217 towards Celebes; and the floating cinders to the westward of Sumatra formed a mass two feet thick, and several miles in extent, through which ships with difficulty forced their way. The finest particles were transported to the Islands of Amboyna and Banda, 800 miles east from the site of the volcano; and the area over which the volcanic effects extended was 1000 English miles in circumference, including the whole of the Molucca Islands, Java, and a considerable portion of Celebes, Sumatra, and Borneo. But if the disruptive forces in these regions have been formerly predominant, the creative and constructive power is now the most active. The zoophyte is adding silently and incessantly to the number of these island-groups; coral-reefs are constantly emerging from the waters; seeds, deposited by birds, or wafted by winds, quickly vegetate; verdure speads over the waste; and palm-trees rise in tufted groves, as if by enchantment, from the ocean. The hidden but ever active energy of the coral-insect makes the navigation of this Archipelago exceedingly difficult, for charts and soundings do not long form safe guides where an unseen power is always at work, reducing the depth of seas, and converting water into dry land.—*Quarterly Review, No.* 222 *p.* 486.

The limits of the volcanic band which crosses the Archipelago are distinctly defined by the active volcanoes with which it is studded. There appears a great volcanic stream in the neighbourhood of Kamtschatka from which it can be traced in a south-west direction through the Kurile Islands, Japan, and Loo Choo, skirting the Coast of Asia, to Formosa, where it meets another coming from the south and south-west through the Philippines and Mindanao to the Moluccas, embracing the eastern extreme of Celebes and the western Peninsula of New Guinea, and then another curved from the westward along the Trans-Javan Chain to the Straits of Sunda, when it meets one from a northwesterly direction though Sumatra and the Andamans to Cheduba island, in the northern part of the Bay of Bengal. From the western extreme of New Guinea, however, along the north coast of that island to New Britain, although its volcanic character has been decided by recent French navigators, there remains a tract including thirteen degrees of longitude in which no active volcano has been seen. Indeed it is by no means improbable that the band which takes a southerly direction from Japan through Fatzima, the Bonin and Mariana Islands, may prove to be continued to New Ireland; in which case the chain of active volcanoes which extends through the Solomon Islands and the New Hebrides to New Zealand, and perhaps further to the south, may indicate the course of an independent stream.

With such violent subterranean forces in operation, even at the present day, it is easy to apprehend how numerous must have been the up-risings and subsidings of the solid matter of the earth, during byegone ages. According to the views which have been adopted from Sir Charles Lyell's prolonged investigations, it is little probable that all these changes occurred at one time, but that they have resulted from a series of great up-pourings from the interior during bye-gone ages, indentical with those still in operation, through perhaps all in the lines which we observe in the direction of the existing mountain ranges. One of these, prolonged through Arakan, halts at point Negrais, to reappear through the Andamans and Nicobars ; and this Eastern Asiatic range, after extending along the S. W. coast of Sumatra, terminates at its S. E. point. Another runs along the Malay Peninsula, is lost for a time, but appears again in the high peak of Lingin, and terminates in Banca and Billiton, and a branch from this seperates at Pulo Timoan, on the east coast of the Peninsula, and ends at Carimata, in the strait between Billiton and Borneo. Two ranges traverse Cambodia and Cochin-China in the same direction, and these will be found to extend to, and, perhaps, to traverse, Borneo. Between the Cambodian range and the mountains at Sarawak, on the north-west extremity of Borneo, the Natunas islands and Pulo Condor form the connecting link ; and as the Sarawak hills run to the south-east, the range is probably continued, either by a connected line, or by isolated mounts, until it terminates in the Gunung Ratos, near Cape Selatan. More recent data shew that this range, after traversing the western part of Borneo, terminates on the south coast, a little to the eastward of Kotaringin. The Gunung Ratos would therefore appear to have been formerly connected with the primary range which shews at Bintulu, on the north-west coast of Borneo, and which may be a continuation of one of the Indo Chinese ranges. The Anam or Cochin-Chinese Range is that which can be traced most distinctly across the Archipelago to Australia at the present day. There seems no doubt that the multitude of islands which are now to be seen are merely plutonic masses upraised by subsequent volcanic action : or the tops of great volcanic outbursts which have appeared above the ocean. There are innumerable coral reefs and coral islands but Mr. Darwin's essay on the " Structure and Distribution of Coral reefs," has satisfactorily shewn that " Atolls" or annular reefs were originally fringing reefs constructed around islands that have since subsided. The depth of water on these banks averages about 30 fathoms, deepening rapidly as the edge is approached, and shoaling gradually towards the land. And, where the earth has not risen above the waters surface, great submarine banks are to be traced from one island to another. One of these is termed the Great Asiatic Bank, and the countries lying on it, may be noticed first. The mountain ranges in the south-eastern part of Asia invariably run in a direction nearly N. N W. and S. S. E., and are all of the primary formation. The chain which extends along the Malay Peninsula is the most conspicious of these ranges, and is continued at intervals to Banca and Billiton, and perhaps may be traced as far as the north coast of Java. It is this range that most abounds in metals, or, at all events, in which mining operations are pursued with greatest sucess, probably from the strata, owing to its central position, having been little disturbed by the convulsions which have shaken the countries on either hand. The productiveness of the gold mines of the Malay Peninsula and of the tin mines of Banca is well known. This range may be considered as the back bone of the Great Asatic Bank which extends into the Archipelago from the south-eastern extreme of Asia to a distance of nearly 1000 miles, in fact to within 50 miles of Celebes, perhaps to the south-west extremity of that Island also ; but there is a space of nearly 30 miles across which no soundings have been carried. Sumatra, which lies on its western verge, has been subjected to volcanic action, but not to so great an extent as to disturb the direction of its mountain range, which runs paralled to that of the Malay Peninsula. The third and last range that can be traced into the Indian Archipelgo is the one that traverses Laos and Camboja, at the southern extremity of which it disappears for a time, showing itself only at Pulo Condor and Natunas, until it emerges under the northwest extreme of Borneo, and is continued along the entire west coast of that island. Here it again disappears, and only shows itself again on the north coast of Java, where it ceases entirely : the remaining portion of this Island, with perhaps, a part of the northwest extremity, being either of volcanic formation or of alluvial deposit. It is rather singular that the celebrated teak-tree, which abounds on the Cambojan part of this range, but is not found in Borneo, is again met with here, the projecting part of the north side of Java, between Samarang and Surabaya, being a vast teak forest from the timber of which the greater portion of the shipping employed in the Archipelago is constructed. Java is the only Island in the eastern seas in which the teak-tree is indigenous, nor will it thrive in the volcanic parts of the Island where its cultivation has been attempted. This, which may be called the Cambojan Range, is also rich in minerals, especially the Bornean part, of it, where large quantities of gold and many diamonds are obtained by the miners. The volcanic Islands of the Archipelago also contain metals, gold-dust being found at the bottoms of many of the mountain streams, but it does not exist in veins, as in the Malayan Peninsula and the west coast of Borneo. these having apparently been broken up by the violent convulsions to which these Islands have been subjected. The metal is therefore only obtained from the bottom of the mountain streams, where it has been deposited when the earth in which it had been contained was washed away.

European enterprise has done much to develope the resources of Borneo, Java and Sumatra, and their adjacent Islands.

In Sumbawa, the mahomedans take a high place, and they are largely proselytising the mountaineers, who, however, secretly trust in their idols. In Grobagan at the centre on the limestone district is a mud volcano, 16 feet in diameter. The black mud every two to five seconds bubbles up and subsides, it rises to a height of 20 to 30 feet, then explodes with a dull noise scattering a shower of warm black mud in every direction; round about are warm brine springs from which salt is extracted. Its eruptions are most frequent in the rainy season. It is called Kuwu, "the place of abode," and an old legend is that it is the residence of a monster snake whose writhings cause the eruptions. The Javanese give picturesque names to the various places in the Island such as Prosperity; Country of ghosts; Unlucky; Heroic difficulty: the Javanese are skilful workers in metals, gold, iron, brass cutlery, and carpentry. Their kris has a hundred forms. Javanese and Sumatrans are both of Malay race, but the amok is almost unknown in Java. Sumatra has the elephant and tapir and ourang outang and argus pheasant, dragons blood; all wanting in Java. The Sunda ox, peafowl, rhinocerous and sloth and teak occur in Java, not in Sumatra; Dragons blood, from the Calamus draco, a forest plant of Sumatra is a granular matter adherent to the ripe fruits, and obtained by beating or threshing the fruit in little baskets. The chief place of production is Jambi on the N. E. side of Sumatra. The principal collectors are the Kubu, a wild race who sell it to the Malays at a shilling a pound, about 48 tons are said to be collected in Jambi, but this seems an excessive estimate. The stems of the male plant form walking sticks and are supposed to be the Jambee so fashionable in the reign of Queen Anne.—(*Crawfurd's Dictionary.*)

Mahomedanism has made large progress in the Archipelago, but Bali is still hindu. Mahomedan Malays inter without coffin or shroud. Kayan Dayak are idol worshippers; keep their dead for some days and inter in a coffin made of the hollowed trunk of a tree. The Balinese burn their dead, and the widows and some slaves of rajahs burn with their husbands' corpse, but other widows burn or are dispatched with a kris. Dayak is the name given to all the wild tribes of Sumatra and Celebes; but is particularly applied to those of Borneo, where they are most numerous. Some are wild forest residents, but others have fixed habitations, large barrack-like huts containing many families. They are ignorant of any written character. In their wars they clothe in prepared skins. Their arms are the sword and spear and blow pipe.

In the Archipelago there seem to be five races of man, the Malays proper: the Semang or dwarf negroes of the Malay peninsula; the Negrito or Asta of the Philippines; the larger Negro race or Papua of New Guinea, and a race whom Crawfurd styles the Negro Malay, intermediate between the Papuan and Malay. The Malays are superior to all the others in intellect and civilization. They occupy the whole of the Malay peninsula, half of Sumatra, and all the Sea Coast of Borneo. Their numbers are estimated at 1,500,000 in Borneo: 1,250,000 in the Malay peninsula; and 1,000,000 in Sumatra. The Malay is short, squat with round face, wide mouth, large high cheek bones; short small nose; black small deep seated eyes: Their hair is lank, black and harsh, and the men have little or no beard. The Saman or Semang, are a small Negro race.

The Negrito are short, but well made, active, with soft frizzled hair, nose slightly flattened, features more regular and skin less dark than the African Negro.

The Papua of New Guinea are true Negroes, and have made some advances in civilization. The Negro Malay are fairer than the Negro, darker than the Malay but intermediate between Malay and Papua.

The lines of volcanic action to which these Islands have been subjected can be traced with tolerable distinctness. One of these extends along the W. coast of Sumatra and the S. coast of Java; whence it is continued by a chain of Islands, separated by narrow but deep channels, to New Guinea, and can be traced through that Island to the Louisiade Archipelago, and is probably continued by New Caledonia, and Norfolk Island to New Zealand, thus forming a curved line resembling the letter S. The other line commences in Kamtschatka and extends through the Kurile Islands, Japan and Loochoo, to the Philippines, where it separates into two branches, one traversing Palawan and the N. W. part of Borneo, where it terminates near the limits of the Great Asiatic Bank, and the other continuing in a southerly direction until it comes in contact with the Sumatran line. It is near this point of contact that the volcanic action has been strongest, throwing the islands into fantastic forms, of which Celebes and Gillolo furnish striking examples. These islands all rise abruptly from an unfathomable sea, a circumstance unfavourable to their productiveness, since a large portion of the rich soil created by the decomposition of the volcanic rock is washed away into the ocean. Java, however, is in a great measure exempt from this disadvantage, owing to the Great Asiatic Bank extending to its northern coast, from which the soil is deposited in vast plains lying between the mountain range and the sea. These plains are so surpassingly rich that they not only yield a sufficiency of grain for the consumption of a large portion of the population of the Archipelago, but at the same time afford such abundance of sugar and other tropical produce as to furnish cargoes for many thousand tons of shipping. The remark that has been made with regard to the ranges in the south-eastern part of Asia is equally applicable to Australia, since one of the most marked features in the geography of this continent is the uniformity that exists in the direction followed by all the continuous mountain ranges that have yet been discovered. *The Great Australian Bank* which fronts the N. and N. W. coasts of Australia commences near the N. W. Cape, and extends in a N E. direction to New Guinea, where it terminates at the base of the high but narrow mountain range that unites the eastern and western parts of that Island, and separates the Banda Sea from the Great Pacific. It is at this point that the edge of the bank is most remote from Australia, the distance to the nearest point of the N. coast being 400 miles. It appears again on the S. coast of New Guinea, near Torres Straits, and extends along the N. E. coast of Australia, the Great Barrier Reefs being on its outer edge. The Arru Islands and New Guinea are thus united to the continent of Australia, and the kangaroo, long supposed to be peculiar to Australia, is found both in the Arru Islands and on the southern part of New Guinea.

New Guinea.—The northern part of this Island, lying to the N. W. of the mountain range, partakes of the rugged and broken character of the volcanic Islands of the Indian Archipelago, but the south-western part is low and undulating, and we may conclude that it bears considerable resemblance to the northern coasts of Australia, since the several Dutch navigators who explored the Gulf of Carpentaria, and who are in the habit of coasting this part of New Guinea on their way to Australia, considered them as being portions of the same continent, and they were so delineated in maps until Cook passed through Torres Strait and decided the question as to their insularity. A very interesting account of the S. W. coast of New Guinea, is given in Modera's " Narrative of the voyage of the Dutch Corvette 'Triton' in the year 1828," when this coast was explored with a view to forming a settlement.

The Arru group of Islands—are situated on the northern verge of the Great Australian Bank, and extends from N. to S. about 100 miles; but as the eastern side of the group has not been explored, its limits in that direction are uncertain. Some of the southern islands are of considerable extent, but those to the N., lying close to the edge of the bank, are rarely more than 5 or 6 miles in circumference. The land is low, being only a few feet above the level of the sea, except in spots where patches of rock rise to the height of 20 feet, but the lofty trees which cover the face of the country give to it the appearance of being much more elevated. Coral reefs extend from the shores of all the islands, and in the eastern parts of the group these are often of great extent. The islands are divided from each other by narrow channels some of which are of great depth, and in one of these there is said to be a whirlpool of so formidable a description that the natives will not venture to approach it even in their larger vessels. This group has not been left quite untouched by the convulsion which has shaken its neighbours, a circumstance that might naturally be expected from its position on the very edge of the bank, and in the close vicinity of the volcanic chain, the Great Ki Island being only 60 miles distant.

The primary mountain ranges both in south-eastern Asia and in Australia, pursue a precisely similar direction, and the western most Asiatic ranges, if continued, would strike about the N. W. Cape where the western Australian range commences, while banks extending from both these continents actually approach to within 450 miles of each other.

Five-sixths of the whole Archipelago are claimed by the Dutch as their own possession, (*Moniteur des Indes.*) Sumatra, Babi, Nias, Mintao, the Pora Isles, Poggi, and the Enganos: Java, Madura, Baweean, the Kangeang, Banka, Biliton, Bintang, Linga, the Natunas, Anambas,, and Tambelan, the kingdom of Sambas in Borneo, with the great Pontianak and Banjarmassim residencies, and the Karimata isles—Celebes Sumbawa, Bouton, Saleyer, Amboyna, Ceram, Buru, Siam, Sangir, Talaut, the Xulla and Bangaai groups, Halmahera, Obie, Batchian, Ternate, Tidor, Waigin, Battanta, Salawatte, Mysole, the Bandas, the Ki, Arru, and Tenimber, a part of Timor, Rotti, Savu, Sumba, Ende, Adenaar, Solor, Lombate, Putare, Ombai, Bali and Lombok—with the western part of New Guinea—all these are claimed by the Netherlands, and if her political supremacy were not in many of them a simple fiction, they would truly form a magnificent colonial empire. The political geography of the further East, however, is not yet accurately mapped out; nor, indeed, is the region in any respect perfectly known. The recent magnetic survey has added much to science: but still more remains to be determined.—(*Elliot's Magnetic Survey, Phil. Trans.* 1851, *cxli.* 287. *John's Indian Archipelago, Vol.* II. p. 1357.)

The opening of this Archipelago to Europe was gradual. Entering the utmost eastern confines of the Archipelago, Magellan discovered the Ladrones, or Isles of Thieves. They have since been named the Marianes, but still deserve their original appellation, as the people of the surrounding groups stand in dread of their predatory inhabitants. On one of the Meiaco-shimah isles walls have been raised and pierced with loopholes, as a defence against these roving banditti of the sea. (*Sir E. Belcher*, *i.* 85). The Ladrones lie about four hundred leagues east of the Philippines. Only one of them is now tenanted, and that by a small and savage tribe. Plantations of caper trees are in perpetual bloom,

On the festival of St. Lazarus, Magellan discovered that group of more than forty islands; (*Walton, Preliminary Discourse*, 67), the most northern in the Archipelago, to which he gave the name of the saint, but which were afterwards named in honour of king Philip. Thirteen only of them are remarkable. They occupy the only part of the Archipelago liable to hurricanes, and derive many of their characteristics from this circumstance,—a soil of superior fertility, and adapted for peculiar kinds of cultivation, as well as for wheat and rice, without fragrant spices, or fruits of very delicate flavour. (*Crawfurd, Indian Archipelago*, *i.* 11.) Their appearance is singular. In many parts covered with basalt, lava-ashes, traces of volcanic eruptions, and other ruins of nature, they possess a rich alluvial soil. Beneath the surface, the internal fires of the earth are in continual activity.—*John's Indian Archipelago, Vol.* I. p. 103.

The Archipelago contains three islands, New Guinea, Borneo and Sumatra, of the first class, inferior in size only to Australia; Java takes a second place: three of third size, Celebes, Luzon, and Mindanao, each as large as the most considerable of the West Indian group; and of a fourth size at least sixteen,—Bali, Lombok, Sumbawa, Chandana, Flores or Mangarai, Timor, Ceram, Bouru, Gilolo, Palawan, Negros, Samar, Mindoro, Panay, Leyte, and Zebu—most of them with spacious alluvial tracts, navigable rivers, and much natural riches. The groups and chains in which they are distributed are dispersed over narrow seas with the greater islands intervening. Innumerable channels and passages, therefore, open in every direction to the mariner,—tortuous, intricate, full of rocks, reefs, and shoals, which render them in some parts difficult of navigation. (*Groot, Moniteur*, *i.* 53.) They are made less dangerous, however, by the prevailing serenity of the waters, the regularity of the currents, and the steadiness of the winds. Tremendous storms, indeed, called typhoons, occasionally visit the Straits of Malacca, (*Berncastle's Voyage*, *i.* 274.) over the China Sea; but they are rare, and the islands of the interior region may be said to lie amid perpetual calms. The groups known as the islands of the Arafura sea consist of the Tenimber, the Ki, and the Arru groups, with others of inferior significance. They are scattered over a considerable space of sea, and vary in size from seventy miles in length to mere tufts of verdure floating in the sea, like baskets of grass and flowers, crowned by tall clumps of palm, and dispersing through the atmosphere a fragrance like that of the cinnamon gardens in Ceylon.

The Tenimber group consists of many islands, inhabited by a curious race of people, half savage in manner, whose villages, built on limestone hills, near the shore, combine with the varying outlines of the surface, the fresh and green aspect of the interior slopes, and the blue water in the channels between, to present a graceful prospect to the navigator's eye, rarely equalled. Equal in brilliance.—*John's Indian Archipelago, Vol. ii. p.* 87, 88.

The contrast which the volcanic Islands of the Archipelago afford when compared with the continent of Australia is very strikingly presented to the view of a voyager from Port Essington, crossing for the first time the sea that separates the continents of Asia and Australia. Even before he has lost soundings on the great bank which extends from the northern shores of the latter continent, the lofty mountains of Timor rise up before him. As he nears the land the colour of the water suddenly changes from green to deep blue; he has now passed the steep edge of the bank, and is floating on the unfathomable seas which bound the volcanic Islands of the Archipelago. On closer examination he finds that the land of Timor rises abruptly from the depths of the ocean, so much so, that from many of the precipices which overhang the sea, a line of great length will not reach the bottom, while the very few spots on which anchorage is to be found are so close to the shore as to be available only when the wind blows from the land. And to complete the contrast, if the weather is clear we perceive that one of the mountains near the east end of Timor is an active volcano. The chain of Islands which extends from Java to Timor is of the same character; lofty volcanic peaks, some in a state of activity; while the Islands are separated from each other by narrow channels of unfathomable depth, through which the current from the Pacific, caused by the prevalence of easterly winds, rushes with great force; but on passing these the voyager again perceives a change in the colour of the sea from deep blue to green, and, on sounding he finds a bottom of stiff clayey mud, resembling exactly that of the bank which fronts the northern coasts of Australia. He is now on the great bank which extends from the south-eastern extremity of Asia far into the seas of the Indian Archipelago. The Islands now lose their volcanic character, and on arriving at Singapore, near the extremity of the Malay Peninsula, the general resemblance of the country to that in the neighbourhood of Port Essington is sufficient to strike the most careless observer. The land low and undulating; the shore with red cliffs alternating with sandy beaches; even the rocks of the red iron-stone known to Indian geologists by the name of laterite, are perfectly in character with the country of the Coburg Peninsula, and even on closer examination little difference can be discovered except in the vegetation.

Timor is a word which means the east, and was probably imposed on this island by the Malays, to whose language it belongs, because this was the extreme limit of their ordinary commercial voyages to the south-east. Timor is about three times the extent of Jamaica. Its principal inhabitants are of the Malayan race, but it contains also Papuans or Negroes, and tribes of the intermediate race. The two languages of Timor are the Manatoto and the Timuri, the first spoken at the north-east end of the island, and the last used by many of the tribes as a common medium of intercourse. No alphabet has ever been invented in Timur; but judging by the specimens of its languages, the vowels are the same as those of the Malay and Javanese.

From Timor to New Guinea, there runs a long chain of islets, forming, as it were, a wall or barrier to the south-eastern portion of the Archipelago. In these islets the inhabitants are of the same race with the Malays, and speak many languages. By far the most ample and authentic account of them has been given by Mr. Windsor Earl, who, after a longer experience of the countries in which they are spoken than any other European, makes the following observations: "In the south-eastern parts of the Indian Archipelago, where opportunities of social intercourse between the various petty tribes are of rare occurrence, every island, every detached group of villages, has its own peculiar dialect which is often unintelligible even to the tribes in its immediate neighbourhood. In some of the larger islands, Timor, for example, these tribes are so numerous, and the country occupied by many of them so extensive, that it becomes impossible to form even an approximate estimate of their number." Of one language, the prevailing one, among several languages of the island of Kisa, one of the Sarawati group, in the chain of islets already mentioned, Mr. Earl furnished a curious and instructive vocabulary of 330 words. The Kisa is an unwritten tongue, but its vowels are the same as those of the Malay and Javanese.

The Spice Islands, in the Molucca and Banda seas, consist of many islands and numerous languages. Next to Java of which they form a sub-government, the Moluccas are the most important of the Dutch possessions in India. The islands to which this term is applied are Amboyna, Banda, Ternate, Tidore and smaller islands in their neighbourhood. The islands are small, volcanic, unproductive in grain, but fertile in fine spices. But the monstrous policy of the Dutch nation in their greed to secure a monopoly of this classs of products, led them for years, to root up and destory, at a great cost, often by force of arms, every nutmeg or clove tree not required for the production of that quantity of spices which they calculated they could dispose of. Rosingain, near Banda, was almost abandoned after the extirpation of its spice trees, its people emigrating to the neighbouring islands in search of livelihood. The people are of the Malayan race, short, squat and darker in complexion than the Malays or Javanese. The Amboinese are of a middling height and well formed. They are gentle, very sober, brave, easily managed, and make good mounted and foot soldiers and a considerable number of them have embraced christianity. Banda is very unhealthy, and is subject to frightful earthquakes. When first discovered by Europeans, the inhabitants had made considerable advance in civilization; although still much inferior to that of the Malays and Javanese. Sir Stamford Raffles has furnished specimens of three of the languages of this furthest east portion, viz: those of Ceram, correctly Serang, of Ternate, correctly Tarnate, and of Saparuwa, one of the Banda isles. Of 28 words of the language of Ceram, nine of the words are Malay, two Javanese, and 17 are common to these two languages. Ceram Laut is the great place to which the Bugis carry the Papuan slaves whom they steal from New Guinea.

The great group of the Philippines, although contiguous to the proper Indian Archipelago, differs materially in climate and the manners of its inhabitants. It extends over fifteen degrees, from near latitude 5° to 20° N., and consists of many islands of which only Lucon and Mindanao are of great size. The bulk of the people are of the same tawny complexioned, lank haired, short and squab race, as the principal inhabitants of the western portion of the Indian Archipelago. The focus of the aboriginal civilization of the Philippines, as might be expected, has been the main island of the group, Lucon. This is a corruption of the Malay and Javanese word "lasung," meaning a rice-mortar. The Spaniards are said to have asked the name of the island, and the natives, who certainly had none, thinking they meant a rice-mortar, which was before the speakers at the time, answered accordingly. In the Philippines are many separate nations or tribes speaking distinct languages, unintelligible to each other. The principal languages of Lucon are the Tagala, the Pampanga, the Pangasinan, and the Iloco, spoken at present by a population of 2,250;000, while the Bisaya has a wide currency among the southern islands of the group, Leyte, Zebu, Negros, and Panay, containing 1,200,000 people. Mr. Crawfurd tells us that it does not appear, from a comparison of the phonetic character and grammatical structure of the Tagala, with those of Malay and Javanese, that there is any ground for fancying them to be one and the same language or languages sprung from a common parent, and only diversified by the effects of time and distance, and an examination of the Bisaya Dictionary gives similar results.

The great islands of Mindanao, Palawang, and the Sulu group of islets, forming the southern limits of the Philippine Archipelago, contain many nations and tribes speaking many languages of which little has been published. Mr. Crawfurd, on the information from Mr. Dalrymple, informs us that even in the little group of the Sulu islands, a great many different languages are spoken, and he gives a short specimen of 88 words of one of those most current.

Sulu has for many years been the market where the Lanun and other pirates disposed of much of their plunder, and in former times itself was decidedly piratical. The mahomedan religion has made much progress in Mindanao and the Suloo islands, as has the Malay language, the usual channel through which it has at all times been propagated over the islands of the Indian Archipelago. Mr. Crawfurd remarks that whether the principal languages of the Philippines be separate and distinct tongues or mere dialects of a common language is a question not easy to determine. Certainly, the phonetic character of the Tagala, the Bisaya, the Pampangan, and Iloco are, sound for sound or letter for letter, the same. Words of the Malayan languages are to be found in the language of the aboriginal inhabitants of Formosa or Taiwan, and as this large island, about half as big as Ireland, stretches as far north as the 25° of latitude this is the extreme limit in a northerly direction to which they have reached. The aborigines of Formosa are short in stature, of tawny complexion and lank hair. Although inhabiting a great and fertile island, affording to all appearance a fair opportunity of development, they never made any progress in civilization, and at present seem to live in a state of barbarism. They are thought by Mr. Crawfurd to belong to, or much to resemble, the brown complexioned race of the Archipelago, of whom the Malays are the type. According to Latham, the western coast of Formosa is occupied to a great extent by recent settlers from China; but the interior is occupied by several rude tribes whose language differs from the known Formosa. The archipelago of coral islands on the north side of the Straits of Sunda is remarkable. A similar group of islands is found between the Straits of Macassar and Bali.—(*Jansen. Maury's Physical Geography p.* 80.)

The south-eastern extreme of Java, the south point of Bali, and the Banditti Islands in the Straits of Lombok, are all upheaved table lands, bounded by precipitous limestone cliffs, several hundred feet in elevation. Areas of simple upheaval are found on the north side of the volcanic band at Flat island, Rusa Rangi and Lingit, and at the Iron Cape of Flores, when on the south coast of Java. It is thus described in Dr. Horsfield's "Mineralogical Sketch of the Island of Java" which is inserted in the general map of that island by Sir Stamford Raffles, in his "History of Java." "Extensive district of secondary volcanoes mixed with hills of limestone, especially near the sea, where the limestone rocks are piled up to great heights—basis basalt and wacken, breccia in the beds of rivers;—also porphyry, jasper, cornelian, agate, obsidian. In some places quartz appearing in the well known mineral forms of rock-crystals, prase or amethyst. The intercourse between continental Asia and the islands of the archipelago dates from a very remote period. Their rare products were in request in China and India long before they were heard of in Europe. Camphor and spices, two of the most esteemed productions of these islands, were used by the Chinese two thousand years ago, the one for diffusing an aromatic fragrance through their temples, the other as indispensable condiments in their feasts. A hindoo empire long flourished in Java, where many magnificent ruins still attest its duration and greatness. The Arabs subsequently gained a footing there, as well as in the other islands of the archipelago, and gradually supplanted the religion and governments of India. The Malays are now the dominant race, and they have reduced, where it was possible, the aboriginal population to slavery. The Malay kingdoms have generally perished; but the Malay people remain, and constitute the most energetic portion of the inhabitants, possessing virtues which, developed by a firm and beneficent government, might raise them high in the scale of civilization. (*Quarterly Review, No.* 222, *p.* 486.)

The islands of the Pacific extend from the east of New Guinea and the Philippines, to within two thousand five hundred miles of the western coast of America, and from about the 22° of north, to the 47° of south latitude. The languages spoken over this vast area are, probably, nearly as numerous as the islands themselves. A language, with variations is spoken by the same race of men from the Fiji group west to Easter Island eastward, and from the Sandwich islands north to the New Zealand island south. It has been called the Polynesian. The whole number of Malayan words in the Maori dialect of the Polynesian, as they are exhibited in William's Dictionary, only amount to 85.—(*Crawfurd Malay Gram. and Dic. Vol. I p. 1 to cxli. Mr. Logan in Journal Indian Archipelago ~~Nos. from 1848 to 1858.~~)*

Notwithstanding the numerous languages in the Archipelago, the written characters are only eight or at most nine in number. The Javanese alphabet like all others in the Archipelago is written from left to right, each letter is distinct and unconnected, and the writing is perpendicular and not slanting. It is the character used for the Javanese proper, the Sunda, the Bali, and it is believed the Lombok; and including Palembang in Sumatra, it is current among twelve millions of population. But, in prior times, other characters to the extent of twelve in number, have prevailed in Java.

In Sumatra, beginning from the west, the first evidence of a native written character is among the Bataks, and it is singular that a nation of cannibals should possess the knowledge of letters. There was assuredly nothing of the kind in Europe or continental Asia until long after men had ceased to eat each other. The form of the Batak letter is horizontal.

The Korinchi alphabet, among the people of this name in Sumatra, who border on Menangkabau, has 29 characters and consists of horizontal or slightly raised scratching.

The Rejang, is the alphabet of Lemba and Pasummah on the western side of Sumatra. It consists of 23 substantive characters, formed of upright scratches or strokes, and on the whole it is more complete than either the Batak or Korinchi.

The Lampung nation, which occupies that portion of the southwestern side of Sumatra which lies opposite to Java, divided from it only by the Straits of Sunda, has its own peculiar alphabet, which consists of substantive letters with double or treble consonants making them up to 44. It has a great deal of that angular linear and meagre form which characterizes the other Sumatra alphabets.

The Achin and Malay of Sumatra are written in the Arabic character.

The Bima alphabet, formerly in use amongst the Bima people in the island of Sumbawa, east of Sumatra and Java, has now given way to the alphabets of the Celebes.

In Celebes, are two distinct alphabets, one of them the Bugis, at present in use over the whole island which extends to Boutou and Sumbawa and wherever the Bugis nation have settled or colonized. The modern Bugis has 23 substantive characters consisting mostly of small segments of circles, running horizontally. The Bugis letters have no resemblance to those of Sumatra, or Java, or even to the obsolete alphabet of Sumbawa. The other alphabet of Celebes, is now obsolete.

The ninth and last alphabet of the Archipelago is the Philippines, that of the Tagala nation of the great island of Lucon or Luconia, it consists of 13 characters. It is the only existing in the whole of this group, and seems at one time to have been used among the civilized tribes of the neighbouring islands having spread even to Magindanau and Sulu. The forms of the letters are rather bold and more complex than that of Sumatran alphabets.

In the Archipelago, thus, are nine distinct alphabets, every one of which appears to be a separate and a native invention. But they are not only distinct from each other; they differ equally from all foreign alphabets.

These nine alphabets of the Archipelago are the produce of five large islands only, out of the innumerable ones which compose it. The most fertile and civilized island, Java, has produced the most perfect alphabet, and that which has acquired the widest diffusion. The entire great group of the Philippines has produced, and that in its greatest and most fertile island, only a single alphabet.

The distribution of the existing forms of mammals throughout the Indian Archipelago may thus be indicated: commencing with the species common in Asia at the present day, and excluding those which may have been introduced in a domesticated state, such as the horse, dog, kine, and deer, the common brown monkey has penetrated farthest from the continent of Asia, as it extends through Sumatra and the Trans-Javan chain to the eastern extremity of Timor; but the thirty miles of strait which separates this island from Letti seems to have stopped its further progress, for it is not found in a wild state in the Serwatty Group. To the north, it extends through Borneo and Celebes, and is found in a single island of the Molucca seas, Batchian. This animal, from its habit of frequenting the banks of rivers, is very liable to be carried out to sea in the masses of drift which are sometimes detached from the banks by the current, and its extensive distribution may be attributed to this cause. In Borneo the elephant co-exists with the black bear, (Ursus Malayanus); the Felis macrocelis, or Sumatra gigantic Tiger Cat, and so many varieties of the quadrumanes that their introduction can scarcely have been accidental. In Java, the Rhinoceros, the Royal Tiger, the Wild Ox of the Malayan Peninsula and severa varieties of the smaller quadrumanes, still exis in the jungles. Sumatra and the Peninsula contain every form of mammal found in Java and Borneo, with the addition of the Tapir. These facts would go to prove that Java, Borneo, and Sumatra continued attached to the continent of Asia, at a comparatively recent epoch. The common brown monkey is the only member o the family of quadrumanes that has reached Celebes and Bali, although the strait which separates the latter island from Java is only two miles wide.

The marsupialia range from Australia towards the continent of Asia. A variety of the Kangaroo (macropus), two varietes of the Opossum (didelphis), one of which closely resembles the Ring Tailed Opossum(of New South Wales (Phalankista Cookii), one variety of the Dasyurus, the Native Cat of the colonists of New South Wales and Port Essington : and one variety of the small Flying Opossum, have been found in the southwest part of New Guinea; and singularly enough the Kangaroo has adapted himself to the half drowned nature of the country by inhabiting the trees. A variety of the Kangaroo still exists at Arru Island, which seems to be identical with the small Grey or "Brush" Kangaroo, found in the thickets throughout Australia. This is the "Filander" of Valentyn. The name by which it is known in the Moluccas is "Pilandook." In Ceram, the Ring-tailed Opossum, the Native Cat, the Flying Opossum, and the little Flying Squirrel, all marsupials, and identical in appearance and habits with those which extend throughout Australia, hold undisputed possession of the forest trees. The Ring-tailed Opossum, which is the most numerous, as in New South Wales, is a common pet throughout the Moluccas. The opossum, more especially the Ring-tailed variety which inhabits trees, is the most hardy of marsupials, that is to say its geographical range is farther extended than that of any other pouched animal. The tree Opossum and the native cat (Dasyurus macrourus) are the only varieties of this ancient form of mammals that have not retreated before the European quadrupeds that have been introduced into the southern districts of Australia; the mere presence of a flock of sheep, without their usual attendant, the dog, being sufficient to drive the Kangaroos from the "runs." The tree Opossums are not liable to be disturbed by any animals less agile than the monkey, as they are never seen on the ground except when thrown out of the trees while fighting, and then they scramble up again as fast as they can. The consequence is that the tree Opossums now abound in the settled districts of Australia to an extent that could not have happened previous to the arrival of Europeans, when the aborigines kept down their numbers by dragging them out of their nests in the hollows of trees to serve as food. Even the presence of the monkey is not fatal to the tree-Opossums, as is evident from their coexisting in Timor and in part of South America. The Musang or Mungoose of the Western parts of the Archipelago, will prove fatal both to the tree-Opossum and to the Native cat, whenever it comes to be introduced to Australia, as it can enter the hollows of the trees and destroy them in their nests. The tree-Opossums of Australia feed on the leaves and tender shoots of the Eucalyptus. In the Moluccas, where the Eucalyptus is rare, if found at all, the tree opossums feed on the leaves of the Warringin and Lingoa trees, and on the outer bark of the Kanari. As the two first exist in the Malay Peninsula, the latter under the name of Angsannah, the absence of the tree Opossum from this part of the Archipelago cannot be attributed to want of suitable food. An examination of the limestone caverns in the northern part of the Malay Peninsula, with a view to the discovery of fossil remains of mammals, might be attended with very interesting results, for although the rock has been of subaqueous formation, as evidenced by the existence of fossil shells, still the remains f mammals may be found there, as well as in he caverns of the same formation in Australia. Such an examination is not necessary to shew hat marsupials once existed on the continent f Asia, that point having been decided by their ppearance in the secondary beds of Europe; till it would be a matter of great interest to science were their remains discovered in the Southern parts of Asia.

The Malayan name is "kusu" which has been latinized by the old Dutch naturalists into "Cuscas," and adopted by modern zoologists. n Timor the Ring-tailed Opossum is common n the Southern parts of the island. The only marsupial that has yet been traced in Celebes s the Flying Opossum, but the zoology of this sland still remains to be explored. The Zoological connection of Java, Sumatra, and Borneo, with the continent of Asia, is as distinct as that f Timor, Ceram, and New Guinea, with the ontinent of Australia. Probably Celebes will e added to the Australian group. The infernces to be drawn from these facts must be elf-evident. The distinct character of the mammalian forms exisiting in the countries lying on the Great Asiatic Bank, shew that Borneo, Java, and Sumatra, were attached to he continent of Asia by an unsubmerged range t a period long subsequent to the separation f Australia; which would imply that the curved and that passes from Formosa through the

Philippines, the Moluccas, Java and Sumatra, is the most recent line of volcanic action.

Productive Character.—The primary ranges in South-eastern Asia and the Indian Archipelago are all more or less metalliferous, but the labour of working under ground, and extracting the metals from the matrix, is so unsuited to the habits of the natives, that mining operations are only carried on in those countries which are subjected to despotic governments. Lead mines are worked in that part of the Malayan Range which traverses the kingdom of Ava; and copper mines have been opened in the Anam or Cochin Chinese range, the produce of which is equal in quality to South American copper, but inferior to that of Japan. The produce of these mines has been imported into Singapore, that of Anam in considerable quantities, but the cessation of commercial intercourse has put a stop to the importation. Iron is also smelted from the native ores on the western side of the Anam range, and it is likewise said that silver mines are worked, but the correctness of the report cannot be vouched for. Elsewhere, in this region, mining operations are confined to the collection of metals that have been projected from the original site by subterranean heat, which can be traced distinctly to recent volcanic action The tin of the Malay Peninsula, Banka, and Billiton, and the gold of the Peninsula, Borneo and Celebes, are all collected from the detritus in which the projected metal has been deposited. Lead and antimony ores are found in the Cambodian Range to the north of Kampot, but no mines have been opened.

The excessive fertility of soil which characterises the narrow band in which the volcanic stream is still active, does not extend to the areas in which the circulation has ceased. Nevertheless the fertilizing qualities of decomposed limestone have aided in forming a soil better adapted for the growth of produce necessary for the sustenance of man than the rich, fat, soils of the volcanic bands. Maize, upland rice, yams, and other esculent roots here attain perfection, and the nourishing qualities of the produce are apparent in the superior vigour of the inhabitants of areas of up-heaval. The wheat grown in the uplands of Timor is remarkably rich in gluten, although the small size of the grain gives it an unfavourable appearance in European eyes. The cultivation of produce adapted for commerce is still in its infancy, owing to the lands of this formation having hitherto been neglected in favour of volcanic tracts, but its propects are by no means disheartening. The coffee, cotton, cacao, and hemp (Musa textilis), growing on the upheaved areas, are the best produced in the Archipelago; although the soil is not calculated to produce sugar, or spice equal to that of the volcanic band. The mineral wealth of these areas is, however, more calculated to attract European enterprise. Coal has been found whenever it has been sought for with diligence in spots favourable for its deposit:—iron ore of excellent quality is abundant where the line of upheaval has crossed primary ranges;—and limestone, so necessary as a flux in smelting the metals, is found everywhere, so that the large areas possess those elements, that have mainly contributed to the prosperity of Great Britain. Fortunately, the gold deposits in the western parts of the Archipelago are now pretty well exhausted, and in the more remote regions, Timor, and possibly Sumba, are the only spots in which the steady course of industry is likely to be interrupted by the search for precious metals. The native chiefs of the former island, terrified by the rapacity of the early European navigators, are said to have combined in establishing a law which made searching for gold a capital crime, except on occasions in which it was thought proper to propitiate the deities by the dedication of a Bulan Mas or golden moon, when a human being was sacrificed to the spirits of the mines before the gold could be collected.

This ceremony is probably alluded to in the Account of Timor," published in Mr. Moor's Notice of the Indian Archipelago, Appendix, p. 6. The name of its author is not given, but after diligent enquiry, [illegible] [illegible] the tenor of his remarks he must have resided some time at Coupang, and collected his information concerning the more remote island from parties employed in the commerce of its dependencies; otherwise he could not have described Sumba as a low island, not much higher than Madura. Nevertheless the general correctness of his observations, is ascertained.

The productive character of the volcanic area is totally distinct from that of the primary formations. With the exception of gold, which is found scattered in minute particles in the beds of the mountain streams, no single production of the primary areas repays the labour of collection This deficiency is amply compensated by the surpassing richness of the soil produced from the volcanic rock, which decomposes rapidly before the influence of the atmosphere. The natural productions are unimportant, the nutmeg, which is scattered over that portion of the band which approaches the continent of Australia, being almost the sole exception. But the docility of the native inhabitants proved to be such that they were easily coerced to labour, and the curved volcanic band which traverses the Archipelago became studded with European settlements throughout its length and breadth, which now yield the great bulk of the produce exported from the Indian Archipelago. In the northern part of the Philippines, the famed Manilla tobacco is the chief production; sugar plantations, which supply the Australian colonies, occupy the centre; and the Musa textilis which yields the Manilla Hemp is the chief product of the south. Spices are almost the sole production of the Dutch settlements of the Moluccas, inferior articles being neglected, as is the case in countries which produce gold. Some islands east of Java are still independent of European control, and these yield productions suited to the wants of the natives to such an extent as to give rise to an export trade with all parts of the Archipelago. In Java, coffee, sugar, rice, and tobacco, are the most important articles, the two first being exported to Holland in immense quantities. Coffee and pepper are the chief products of Sumatra, where the soil is less fertile than in some of the other islands of the band. The volcanic agency here becomes comparatively weak, and is confined to the outer coast of the island; where, being backed by an area of upheaval, the greater portion of the alluvium descends into the sea and is lost. Sufficient data do not exist to define the area of upheaval which intervenes between the volcanic band and the north-eastern coast from the neighbourhood of Palembang northward, but its existence is distinctly shewn in the detritus brought down by the rivers. It is probably owing to this circumstance that the alluvial plains of Sumatra which abut on the Great Asiatic Bank are less fertile than those of Java, where the alluvium almost exclusively consists of decomposed volcanic rock.

An overland journey was made with a large party to Filarang in the island of Coopang and abundance of copper was found, but the strata had been so broken up, that mining operations could not have been prosecuted with advantage (See Journal I. A. Vol. IV. p. 495.) The reputed gold deposits, which lie on the south side of the island, were not examined. Quicksilver in a pure state is sometimes brought to Coupang by natives from the interior, and as the collection from the hollows of the rocks in which it is deposited does not entail heavy labour, it might become an article of commerce were its value known.

The edible nest which is constructed by the Hirundo esculenta in the caverns of the limestone cliffs, is found throughout the areas of simple upheaval, but not elsewhere; so that this singular production, which from its value is well known to those engaged in the commerce of the Archipelago, furnishes one of the best tests for deciding the character of the regions in which it is found.

Up to a very recent period the submerged banks which extend from Asia and Australia furnished the principal articles of commerce supplied by the primary region. Agaragar, a marine lichen extensively used in China, trepang or sea slug, and mother of pearl shell, are common to both banks, but the Australian bank is by far the most productive, probably from its not having yet been so extensively worked as the Asiatic.—(*Walton's State, p.* 116.)

There are five different seas recognised by European Geography within the limits of the Indian Archipelago; viz.: the wide expanse between Borneo and the Malay Penisnla; another between Borneo and Java, called the Java Sea; another between Celebes and Timor; the Sea of Celebes between that island, Sulu and Mindanao; and the fifth, a basin of considerable extent between the Philippines, Palawan and Borneo. Around all these flow, on the west, the Bay of Bengal and the Indian Ocean (*St. John's Indian Archipelago, Vol.* I. p. 4, 5.) Banks of soundings extend from the continents of Asia and Australia, and form very remarkable features in the geography of this part of the world; and, as such, are deserving of more attention than has hitherto been bestowed upon them, since it will be found that all the countries lying upon these banks partake of the character of the continents to which they are attached; while those which are situated on the deep sea which separates them are all of comparatively recent volcanic formation with the exception of a few small coral Islands, which, in all probability, are constructed upon the summits of submerged volcanoes. Water spouts, in many parts are very frequent. But the wind often prevents their formation. In their stead the wind-spout shoots up like an arrow, and the sea seems to try in vain to keep it back. The sea, lashed into fury, marks with foam the path along which the conflict rages, and roars with the noise of its water-spouts, and woe to the rash mariner who ventures therein. The height of the spouts is usually somewhat less than 200 yards, and their diameter not more than 20 feet, but they are often taller and thicker; when the opportunity of correctly measuring them has been favourable, however, as it generally was when they passed between the islands, so that the distance of their basis could be accurately determined, they have never been found higher than 700 yards nor thicker than 50 yards. In October, in the Archipelago of Rhio, they travel from south-west to north-east. They seldom last longer than five minutes; generally they are dissipated in less time. As they are going away, the bulbous tube, which is as palpable as that of a thermometer, becomes broader at the base, and little clouds, like steam from the pipe of a locomotive, are continually thrown off from the circumference of the spout, and gradually the water is released. Jansen never saw more water-spouts than in the Archipelago of Bioun Singon, during the changing. Almost daily were seen one or more. In the north-east part of the Archipelago the east monsoon is the rainy monsoon. The phenomena in the north-east part are thus wholly different from those in the Java Sea. In the Archipelago there is generally high water but once a day, and, with the equinoxes, the tides also turn. The places which have high water by day in one monsoon get it at night in the other.—(*Jansen. Maury's Physical Geography, p.* 247 to 250.)

The transparency of the atmosphere is so great that sometimes Venus can be discovered in the sky in the middle of the day.

Especially in the rainy season the land looms very greatly; then we see mountains which are from 5,000 to 6,000 feet high at a distance of 80 or 100 English miles.—*Jonsen.*

According to Dr. Latham, the islanders of both the Indian Ocean and the Pacific are Indians, Japanese or Malay. The Singhalese are Indians; the Luchu are Japanese; and the natives of Sumatra and Borneo are Malay: Hainan, is Chinese. But in the Archipelago, we can never free our researches from continental elements. The history of the Natives along the southern borders of Asia, has in every era, exercised some influence on the Archipelago, and the importance of the international influences of the Archipelago itself, may be supposed from the circumstance that while some writers have derived Malayan civilization from an original source in Menangkabau, others have referred it to Java, and others to Celebes,—whilst two of the ablest,—Mr. Marsden and Mr. Crawfurd have busied themselves in endeavouring to exhume a great nation whose civilization preceded the Javanese, the Malayan and the Bugis, and impressed itself more or less not only in the Archipelago but over all Polynesia. Mr. Crawfurd, in an essay "on the races and languages of the Archipelago and Pacific Island," which was read to the British Association at its meeting at Oxford remarks that, "The theory of Marsden adopted by Humboldt and others of one original language prevailing from Madagascar to Easter Island among all the nations not negro, and the identity in race of the brown-complexioned men within the limits in question, is wholly groundless. In a dictionary of the Madagascar tongue, of 8,000 words, the number of Malay and Javanese words is only 140;—in one of the New Zealand, of 4,560 words, 103;—in a French one of the Marquesas and Omaii of 3,000 words, about 70;—and in a Spanish Dictionary of the Tagala of the Philippines of 900 words, about 300. These facts are of themselves almost refutation sufficient to say nothing of the different phonetic and grammatical structure of all the languages. Over the whole vast field under examination there are but two wide-spread languages that can be said to have dialects—the Malay and the Polynesian, the latter being essentially the same tongue in New Zealand, the Friendly, the Society, the Navigators and the Sandwich Islands, but in no others.—(*Journal of the Indian Archipelago, p.* 178.)

Johore Archipelago.—An extensive Archipelago is formed by the prolongation of the plutonic zone of elevation of the Malay Peninsula from Singapore to Billiton. It is so closely connected geographically with Johore as to appear a continuation of it, partially submerged by the sea. These islands (with the exception of a few of the most southerly) formed the insular part of the kingdom of Johore from the thirteenth century to the British occupation of Singapore, in 1818.

The *Johore Archipelago* embraces several hundreds of islets, besides the considerable islands of Battam, Bintang, Krimun, Gampang, Gallat, Linga and Sinkep, and Banka and Billiton may also be considered as included in it. They are geologically and ethnologically, although not geographically the same, thinly inhabited by several interesting tribes. Some of these have already been slightly noticed by Dutch writers, but the greater part still remain, undescribed. The more important tribes are those termed collectively Orang Persukuan, literally the people divided into tribes. They are all vassals of the King. Those of the highest rank, to whom distinct services are appropriated when the King goes to sea or engage in war, are the Oraing Bentan under an Ulubas lang; the Orang Singgera, under a Batin; the Orong Kopet under a Jinnang, the Orang Bulo and the Orang Linga. The other tribes, some of the land and some of the creeks or sea, are the Orang Gilám, Orang Bekaká, Orang Sugi, Orang Muro, Orang Tambus, Orang Mantang, Orang Kilong, Orang Timiang, Orang Tambus, Orang Mantang, Orang Kilong, Orang Timiang, Orang Mnau, Orang Pulo Boya and Orang Silat. Besides these, there are some wild tribes in the interior of the larger islands. (*Supplement to No.* 5 *Journal of Indian Archipelago, Dec.* 1847, *page* 336).

The future intercourse of Australia with the islands of the Eastern Archipelago will doubtless be very great, and a highly profitable commerce cannot fail to spring up between them. The rich produce of New Guinea, of Ceram, and the islands to the north and north-east of Timor, is now collected in the Arru Islands, and vessels belonging to British and Chinese merchants annually resort to them to obtain the commodities which they require in exchange for the manufactures of Europe and continental India.

The *Mergui Archipelago* is more or less Malay. The number of the Silong or wandering fishermen of the Malay Archipelago amounts to about 1,000 souls.

The *Archipelagos* of the Maldives, Chagos and Laccadives are of Madreporic origin. The Eastern Coast of Australia, between 9° and 25° S. L. has a coral reef or barrier.—*Hist. of Java, vol. i. p.* 62-3, (*2d. ed.*) *Ed. J. I. A. No. V, May* 1848. *Journal of the Indian Archipelago, No. V, May* 1852.—*Latham's Descriptive Ethnology.*—*Earl's Archipelago.* —*Address to the Anniversary Meeting of the Royal Geographical Society,* 26*th May* 1845, *by Sir Roderick Impey Murchison, V. P. R. S. I. G. S., &c. &c., p.* 75. *Mr. Logan in Journal of the Indian Archipelago, Supp. to No.* 5, *Dec.* 1847. *do do do Nos. i & ii, Jany. Feb.* 1854, *p.* 28-29.—*Quarterly Review, No.* 222 *p.* 484.—*John's Indian Archipelago. Vol. i. p.* 45-87-83.103, *Vol. ii, p.* 357. *Crawfurd's Malay Grammar and Dictionary, Vol. i. pp,* 1 *to* 141. *Mr. Logan in Journal Indian Archipelago from* 1848 *to* 1858. *Maury's Physical Geography, p.* 80,2,44-248, *George Windsor Earl, in No. vi. Jour. of the Indian Archipelago and Eastern Asia, May* 1582, *pages* 244 *to* 272. *Crawfurd's Indian Archipelago, Vol.*—*Walton's State.* See India, Lumbok, Quedah.

ARCHITECTURE, the recent advent of the British nation into India, the efforts needed to obtain a standing place and the duty devolving on them of introducing public works, have all hitherto prevented them from engaging in works of ornamental architecture. The Cupola of the Scotch Church at Madras, built by Colonel de Haviland is good, and there are a few ornamental buildings in Calcutta and Bombay. But, useful public works, as the Ganges Canal, the Southern Coast Canal, already extending almost from the Brahmaputra and the Ganges to the Western Coast, the great dams across the Godavery, and the Kistnah, the tunnelling of the Ganges and Indus, the roads, every where, from Cape Comorin to Thibet, the rail roads, with their stupendous bridges, and the irrigation canals, already in vastness and in public usefulness, surpass all that Aryan Hindu, Buddhist, Moghul or Arab had done during their previous 3,000 years of occupation. The Moghul dynasties of India, beyond palaces and tombs, porticos and temples have left little Architecture worthy of emulation. There are a few useful sarai and bridges, but of these many were erected by private persons. Canals are said to have been excavated by Firoz Shah, and by Ali Mardan Khan, but the historians of Timur, do not mention them, and Baber states that in the Hindustan province there were none.—(*Elliot's History of India.*

Captain Cunningham's in his *Essay on Aryan Architecture* mentions the Cashmerian sacred buildings as having a grace and beauty quite peculiar to themselves. They are not, like the hindoo temples, "a sort of architectural pasty, a huge collection of ornamental fritters, huddled together with or without keeping." Nor are they, like the temples of the Jain religion —the intermediate eclectic system between Brahminism and Buddhism—"a vast forest of pillars, made to look as unlike one another as possible by some paltry differences in petty details." They are, on the contrary, distinguished by great elegance of outline, massive boldness in the parts, and good taste in decoration. Lofty pyramidal roofs, trefoiled doorways covered by pyramidal pediments, and great width of intercolumniation, are among the principal features of the Cashmerian temple. The material generally found to have been used is a blue limestone, capable of taking the highest polish, to which circumstance Captain Cunningham refers the beautiful state of preservation in which some of the buildings exist. The great wonder of Cashmere is the temple of Marttand, or Matan, about three miles from Islamabad. Its exact age cannot be determined, but it is somewhere between the years 370 and 500 A. D. and Captain Cunningham thus enthusiastically describes its majestic position; I can almost fancy, he says, that the erection of this sun-temple was suggested by the magnificent sunny prospect which its position commands. It overlooks the finest view in Kashmir, and perhaps in the known world. Beneath it lies the paradise of the East, with its sacred streams and cedar glens, its brown orchards and green fields, surrounded on all sides by vast snowy mountains, whose lofty peaks seem to smile upon the beautiful valley below. The vast extent of the scene makes it sublime; for this magnificent view of Kashmir is no petty peep into a half-mile glen, but the full display of a valley sixty miles in breadth and upwards of a hundred miles in length, the whole of which lies beneath "the ken of the wonderful Marttand."

The sculptures on every ancient Hindu temple in India, however, throw some light on the subject of old costume. These temples are of no very great antiquity, are probably considerably within the christian era, but they furnish specimens of the local costumes of a thousand years ago; and many temples in the south and west of India, as also in Guzerat and Orissa, &c., are known to belong to periods as early as A. D. 500. But although groups of figures are numerous beyond description, their attire seems to be entirely conventional. Men, for the most part, wear head-dresses in the form of conical crowns richly covered with ornaments; their bodies are naked, and their breasts and arms shew necklaces and armlets of very ornate patterns. From the loins to the knee, or middle of the thigh, they have in most instances kilts, as it were, also composed of ornaments; and many are altogether naked, both male and female, with a girdle of ornamental pattern round the loins. These figures abound among the sculptures of Ellora and to the thirteenth century; also upon the 'Cholla' temples at Conjeveram, and elsewhere, probably of the same era. In the Jain sculpture the male and female figures are invariably naked; but ornamented in general with necklaces, bracelets, armlets, and zones, of exceedingly intricate and beautiful patterns, in imitation probably, of the chased goldwork of the period The best representations of ancient costume in India were the celebrated fresco paintings in the caves of Ajunta, many of which continued until lately very perfect. In the buddhist caves of Ellora some paintings in a similar style had been executed; but they were destroyed by the mahomedans when they invaded the Deccan early in the fourteenth century, and it is extraordinary that those of Ajunta escaped their iconoclastic and fanatic zeal. They did escape however, and for many years Major Gill, of the Madras Army, was engaged by Government in copying them on their original scale. The architecture and ornamentation of the temples of Southern India have lately been rendered accessable by the publication by Mr. James Fergusson and Colonel Meadows Taylor of the magnificent photographic representations of Beejapoor, Dharwar, Ahmedabad, and other cities. They are by far the most interesting and complete memorials of the sacerdotal and regal grandeur of Southern India which are in existence; and no work gives so striking an impression of the former splendour of those empires. For the study of native constume they afford materials of indisputable correctness and authenticity. It is difficult to decide the date of the Ajunta paintings, which represent scenes in buddhist history; and the series may extend from the first or second century before Christ, to the fourth and sixth century of our era. In either case they are upwards of a thousand years old. One very large picture, covered with figures, represents the coronation of Sinhala, a Buddhist king. He is seated on a stool or chair, crowned with a tiara of the usual conventional form; corn, as an emblem of plenty and fertility, is being poured over his shoulder by girls. He is naked from the throat to the waist. All the women are naked to the waist; some of them have the end of the cloth, or saree, thrown across the bosom, and passing over the left shoulder. Spearmen on foot and on horseback have short waist cloths only. In another large picture, full of figures, representing the introduction of buddhism into Ceylon and its establishment there, all the figures, male and female, are naked to the waist. Some have waist-cloths or kilts only, others have scarfs, or probably the ends of the dhotees thrown over their shoulders. Female figures in different attitudes around, are all naked; but have necklaces, earrings, and bracelets: and one, a girdle of jewels round her loins. The older buddhist, hindoo-buddhist, and hindoo, excavations near Prome, those at Ellora, at Ajunta, at Karli, and at Elephanta are works of great labour, and perhaps those of Ellora are the finest. But the more modern hindoo and Jain temples are disfigured by statues illustrative of the grossest parts of their belief. The buddhists of Burmah, at Prome and Rangoon have erected magnificent temples for their worship, with much detail, but with a grandeur of dimensions that prevents the thought of puerility. The great collossal figures of the pagodas at Rangoon and Prome are huge structures. The pagoda at Rangoon, built on the most elevated part of a great laterite ridge, towers majestically above all surrounding objects. The Chinese Joss Houses are simple structures, but ornamental from their pleasingly contrasted colouring. In the drier parts of China, alum is employed as a cement in those airy bridges which span the water-courses. It is poured in a molten state into the interstices of stones, and in structures not exposed to constant moisture, the cohesion is perfect, but in damp situations it becomes a hydrate and crumbles, a fact of which the whole empire was officially informed by the government in the early part of the nineteenth Century. It was discovered that water had percolated to the mausoleum of Kiaking: from having been built too near to the mountain side, the alum cement imbibed moisture, segregated and opened the way for water to enter the tomb. In those peaceful days such an event was of sufficient importance to call forth edicts and rescripts, memorials and reports in succession for several months. The son-in-law of the deceased monarch to whose care the construction of the edifice had been entrusted was fined and degraded, and a statesman from Fohkien acquainted with the properties of alum was appointed to renew it. The mahomedans in India, have little architectural to show except in their mosques and tombs. Some of the mosques, as the Jamma Masjid of Hyderabad, and the mosques at Bejapore are grand imposing structures, but one of the prettiest to be met with, is the little Damri masjid at Ahmednaggur, built from the farthing or "damri" deductions made from the wages of those workmen who erected the fort at that place. Of the tombs of mahomedans, the usual shape is, a vast cupola on a square pedestal. These, commonly called Gumbaz, are to be seen wherever mahomedans have ruled: but those at the fortress of Golcondah, of the former dynasty of Hyderabad in the Deccan are only surpassed in magnificence by the tombs of the Adal Shahi family of Bejapoor. Some of the Adal Shahi kings of Bejapore are buried at Gogi south of Kulburgah, and there is a Langar Khanah near with arabesques surpassing anything to be seen in the South of India. The tombs of Kulburgah are of little merit. The tomb of Aurungzeb's daughter at Aurungabad is said to have been in imitation of that at Agra over his relative the Mumtaz mahal.—*Local Newspapers Ed. Rev. No.* 257, *July* 1857. *Pers. Observ.*

ARCOT, a small town about 65 miles W. from Madras, taking its name from two Tamil words Arakada the jungle on the river Palar. It is in Lat. 12·54 N. and Long. 79° 19′ E. and 599 feet above the sea. It is the Arkatou Basileon of the Greeks, and the capital of the nomade Sorai (Σωραι) the whole of the neighbouring territory for several centuries after the christian era, having been occupied by wandering Kurumbars, and then formed the centre of the Chola Kingdom. Rennel says that in his time, Arcot was reckoned the capital of the Carnatic, and must have been a place of great antiquity, by its being taken notice of by Ptolemy as the capital of the Soræ, or Sora-mandalum from whence corruptly Choramandel. It was then a pretty large city, and its citadel was esteemed a place of some strength, for an Indian fortress. The defence of it, by Clive, in 1751, established the military fame of that illustrious nobleman. Its latest dynasty (after repeated assassinations and petty wars in which the original disputants disappeared) was the family of Mahomed Ali, who took the title of Wallajah, nabob of Arcot, and with whom the war lasted till the treaty of Paris, in 1754, fixed Mahomed Ali, second son of Anwar ud Din, in the Government of Arcot; and Salabut Jung, son of the late Nizam-all-Mulk, in the Soubahship of the Deccan. The town gives its name to two revenue districts of India, North and South Arcot, both of them on the eastern side of the peninsula of India, North Arcot has the towns of Arcot, and Vellore and the western railroad leads through it. Arcot, South district has a population estimated at 1,060,000. It has the Coleroun and Pennar rivers and Cuddalore is its chief town, Chellembrum is also a large place; land has trebled in value, in the past 20 years and wheeled carriages ten fold.—Rennell Memoir, P. xxi, 265 p. 328. See India. Kurumbars.

ARCOTE, COUPAM, in the south India, in Long. 79° 48′ E. and Lat. 13° 14′ N.

ARCTONIX COLLARIS. Sand-Hog.

ARCULGODE, a town in the south of India, in Long. 76° 7′ E. and Lat. 12° 46′ N.

ARDABERY, a town in India, in Long. 85° 15′ E. and Lat. 23° 3′ N.

ARDASHIR, There were several Persian sovereigns of this name, viz., Ardashir Babegan bin Sasan, Artaxerxes, the first of the Sassanian Kings A. D. 226.

Ardashir (Artaxerxes ii. (the 10th) A. D. 81.

And Ardashir iii, (the 25) Sassanian) in A. D. 629 under whom anarchy prevailed.

Ardashir-daraz-dast, or of the long arm, was Kai Bahman, the Artaxerxes Longimanus of the Romans. See Fars. Persian Kings. Sassanian.

ARDASHIR, one of the five divisions of the Province of Fars.

ARDAWA a mixture of gram and barley, either in equal proportions, or two to one, as the buyer prefers, used in Thibet for feeding horses. Both grains are parched and ground before being mixed together. Ardawa is thought very fattening food for horses, but owing to the loss of weight and substance in the parching process, and the extra labour required, it is more expensive than plain gram.—*Mrs. Harvey's Adventures of a Lady in Tartary, Vol.* i, *p.* 38.

ARDEA, a genus of birds of the family Ardeadæ, and sub-family Ardeinæ. Four of the Ardeæ are known in Southern Asia, A. Goliath, Sumatrana, cinerea and purpurea; four species of Herodias; and one each of the genera Butorides, Ardeola, Nycticorax, Tigrosoma, Botaurus and Ardetta, in all fourteen.

ARDEA, a town in Fars near the mountainous regions of Ardekan, one of the chief towns of the ancient Persians. See *Ardi*.

ARDEKAN, a mountainous region N. of ancient Fars. The hills form a snowy range and proved a formidable barrier to Alexander's progress. By their slopes, he descended into Persia in his advance on Persepolis. See Istakhr. Aras.

ARDELAN, one of the four divisions of Kurdistan. Wooded mountains, separated by narrow valleys and occasional plains, producing excellent pasture, cover its northern portion which is a nominal dependency of Persia. The Wali of this district, who is also the principal Kurdish chieftain, maintains feudal state in the palace at Sehnah, which is considered as the capital of Kurdistan. A serai occupies the summit of a hill, round which is the town, containing about 4,000 Sunni, 200 Jewish, and 50 Nestorian Catholic families. The Kurdish districts of Ardelan and Kirmanshah, occupy the western limits of Persia, in the space between Azerjiban and Luristan and the space between the Elwand and Zagros ranges.—*Rich's Kurdistan Vol.* 1, *p.* 209. *Euphrates and Tigris*, *Col. Chesney*, *p.* 215.

ARDENT SPIRITS, are Alcoholic liquids See Alcohol. Arrack.

ARDHA. Sansc. The half ;—Dina ardha ; half the day ; Ratri ardha ; half the night.

ARDI OR ARTÆI, the name which Herodotus gives to the Ancient Persians. Baron De Bode supposes the town of Ardea in Fars near the mountainous region of Ardekan, to have been one of the chief towns of the ancient Persians. See Ardea.

ARDIBEHEST AMSASPUND. See Ardibehest-Jasan.

ARDIBEHEST-JASAN. A festival of the Parsees or Zoroastrians maintained in honour of Ardibehest Amsaspund, the controlling angel, according to their theology, over their sacred fire ; on this day the Parsees crowd their fire-temples to offer up prayers to the Supreme Being.—The *Parsees* 61.

ARDINGA, a town in India, in Long. 80° 4′ E. and Lat. 15° 40′ N.

ARDISIA, a genus of plants of the natural order Myrsinaceæ : many species of which occur in India, and several are cultivated as flowering plants. A. humilis is the Badulam of the Singhalese. Ardisia Amherstiana, *Wallichis*· Kyet-ma-oke. *Burm* Læ-kho-mau-thoo. *Burm.* Læ-kho-mau-ghat. *Burm.* Læ-kho-mau wa. *Burm.* Læ-kho-mau-phado. *Burm*, are species of Ardisia.

ARDISIA AMHERSTIANA, grows on the coasts of the Tenasserim provinces.—*Mason, Riddell.* Wight in Icones figures *A. Doma*, humilis, *litoralis, oleracea, paniculata, pauciflora, pentagona*, rhomboidea, *solanacea, and umbellata.*

ARDISIA HUMILIS, is a common shrub at Tavoy, growing down to the plains ; but its habitat, in the Indian Peninsula, is "the eastern slopes of the Neilgherries, in sub-alpine jungle."

ARDRUK. BENG. Ginger, Zingiber officinale.

ARECA, a genus of plants of the Natural Order Cocoaceæ, of which several species, A Catechu : A. Dicksonii : A gracilis and A. triandra, occur in Southern Asia.

ARECA CATECHU, *Linn* ; *Roxb.*

A. Faupel, *Gært.*

Fufil ... ...,	AR ?
Banda...	BALI.
Gua	BENG.
Bongs	BISAYA.
Rapo	BUGIS.
Kunthi ?	BEN.
Kwun	BURM.
Supeari	DUK.
Areca Palm ...	ENG.
Betel-nut Palm ...	„
Catechu Palm ...	„
Supari	HIND.
Jombi	JAV.
Pinang	MALAY.
Kachu...	MALAY.
Adaka ...	MALEAL.
Cavughu ...	„
Puwak...	SINGH.
Bongs...	TAG.
Guaka	SANSC.
Paku maram ...	TAM.
Kamuga ?	„
Poka ; Poka chettu; Oka. Vakha ; Kunda-poka ; Kola-poka	TEL.

The variety Kola-poka has long nuts.

A slender graceful palm of remarkably erect growth attaining a height of 30 to 60 feet, with a tuft of feathery leaves at the extreme top. Its cylindrical stem is only a few inches in diameter. It is an object of extensive culture, in many parts of tropical Asia, in Malabar, north Bengal, Nepaul, and the S. W. Coast of Ceylon, with the Burmese and to a smaller extent by the Karens and in all the islands from Sumatra to the Philippines, in which it seems to have as many distinct names as there are languages. In appearance, the Areca is perhaps the most elegant of all the palms, and on the Burmese coast, where it thrives luxuriantly, a grove of betel palms, with their slender cylindrical stems peering fifty or sixty feet upwards, waving their green plumes, and fragrant flowers, presents a scene of sylvan beauty rarely to be excelled under that tropical sky. In the arid climate of the central Dekhan, it flowers at all seasons, but it requires to be protected from the dry winds, either by matting or straw tied round it, to prevent it splitting, when this happens, it immediately decays. In gardens, when mixed alternately with the cypress, it presents a very striking appearance. The structure of the wood is like that of palms generally. It is hard and peculiarly streaked and might be used in turnery for small ornamental work. In Travancore, it is employed for spear handles and bows, for which it is well suited, being very elastic. This palm yields the betel-nut of commerce, which, mixed with lime and the leaf of the Piper betel, in all the countries of South-Eastern Asia, is in frequent use as a masticatory. The nut is hard and peculiarly streaked and in request in turnery for small ornamental work. A strong decoction of the nut is used in dyeing. Roasted and powdered they make an excellent dentifrice. Young nuts are prescribed in decoction, in dyspepsia and costiveness ; and they are considered to possess astringent and tonic properties. Their use, with betel leaf and lime discolours the teeth, but the people imagine that it fastens them and cleans the gums.

The nuts yield two astringent preparations which are known as Catechu, but of a very inferior quality. These two preparations are respectively called, in Tamil, Katha Kambu and Kash Kathi, in Telugu Kansi, and in the Dekhan Khrab Katha and Acha Katha. The former, Katha Kambu is chewed with the betel leaf, the latter, Kash Kathi is used medicinally.

The tree will produce fruit at five years, and continue to bear for twenty-five years. Unlike the Cocoa Palm, it will thrive at high regions, and at a distance from the sea. In the Eastern Islands, the produce of the tree varies from 200 to 1,000 nuts annually. The nuts form a considerable article of commerce with the Eastern Islands and China, and are also one of the staple products of Travancore. They are gathered in July and August, though not fully ripe till October. In Travancore, " those that are used by families of rank are collected while the fruit is tender; the husks or the outer pod is removed; the kernel, a round fleshy mass is boiled in water; in the first boiling of the nut, when properly done, the water becomes red, thick and starch-like, and this is afterwards evaporated into a substance like catechu; the boiled nuts being now removed, sliced and dried, the catechu-like substance is rubbed on them, and dried again in the sun, when they become of a shining black, ready for use. Whole nuts, without being sliced, are also prepared in the same form for use amongst the higher classes, while ripe nuts, as well as young nuts in a raw state, are used by all classes of people generally, and ripe nuts preserved in water with the pod are also used." For export to other districts the nuts are sliced and coloured with red catechu, or sent whole in the pods. The average amount of exports of the prepared nuts from Travancore is from 2 to 3,000 candies annually, exclusive of the nuts in their ordinary state, great quantities of which are shipped to Bombay and other ports. According to the last survey there were upwards of a million trees in Travancore. Heyne, in his Tracts gives the following as the mode of extracting the catechu from the nuts in Mysore.—"The nuts are taken as they come from the tree, and boiled for some hours in an iron vessel. They are then taken out, and the remaining water is inspissated by continual boiling. This process furnishes Kassu, or most astringent terra japonica, which is black and mixed with paddy husks and other impurities. After the nuts are dried, they are put into a fresh quantity of water and boiled again; and this water being inspissated, like the former, yields the best or dearest kind of catechu called Coony. It is yellowish-brown, has an earthy fracture, and is free from the admixture of foreign bodies." The nuts are seldom imported into England. The catechu has of late years superseded madder in the calico works of Europe for dyeing a golden coffee brown, 1 lb. of this being equal to 6 lbs. of madder. In 1852, the value of Areca nuts exported from Ceylon alone to British Colonies and Foreign States, amounted to £2,230. The spathe which stretches over the blossoms of this tree, and which is called Paak-muttay, is a fibrous substance with which the hindoos make into vessels for holding arrack, water, &c.: also into cups, dishes and small umbrellas. It is so fine that it can be written on with ink. The trunk is only a few inches in diameter and is used in Ceylon for pins and Pengo stricks,—in Travancore for spear handles and bow.—*Roxburgh*, iii. 615. Low's (*Sarawak* (*p.* 41) mentions that this beautiful tree is much prized by the natives of Borneo on account of the delightful fragrance of its flowers, which, taken just before opening from the sheath or spathe, in which the inflorescence is enveloped, and called myang, is requisite in all their medicines and conjurations for the purpose of healing the sick: it is also used with other sweet-scented flowers at bridals and all occasions of festivity. The Malay name Pinang, gives that of the the island of Penang. There are various kinds in use, and the mode of preparation also differs. The three ingredients of the betel nut, as commonly used, are, the sliced nut, the leaf of the betel pepper in which the nut is rolled, and chunam or powdered lime, which is smeared over the leaf.

Prof. Johnston calculated that they are chewed by at least fifty millions of the human race, but like smoking or snuff-taking, all do not use it. The tree requires a low moist situation with rather a sandy soil, either under the bund of a tank or in a position otherwise favorable for irrigation. The seeds are put into holes 6 feet apart.

Areca nut or Betel nut, when in bulk as a cargo generates an excessive heat.—*Roxb. Fl. Ind. iii*, 615. *Voigt.* 637. *Mr. Mendis. Dr. Cleghorn. Major Drury, Useful Plants. Col. Drury's Fischer's Cochin, M. E. Jur. Rep. Elliot. Mason's Tenasserim. Low's Sarawak. Vegetable Kingdom,* 747. *Malcolm's Travels in South-Eastern Asia, Vol. i, p.* 178. *Ainslie's Mat. Indica. Simmonds.*

ARECA DICKSONII. Roxb. iii. 616.

A tree of the Malabar mountains, the poorer people use its nuts as substitutes for the true betel nut.—*Roxb. iii*, 616. *Voigt.* 637.

ARECA GRACILIS, Roxb. is a tree of Sikkim, Sylhet, Chittagong and the S. Concan the Ban-gua or wild Areca of Bengal; and A. triandra, the Ram gua of Bengal, grows as a tree in Chittagong.

ARECA OLERACEA, *Linn.*

Euterpe Caribaea, *Spreng.*
Oreodoxa oleracea, *Endl.*

Is the English Cabbage Palm, a native of the West Indies, and the wood used the same as Areca catechu.

ARECA VESTIARIA, is so called from clothing being made of its fibres.

ARECOTE, a town in India in Long. 76° 8′ E. and Lat. 11° 14′ N.

AREE, a town in India in Long. 79° 43′ E. and Lat. 21° 57′ N.

AREESH. ARAB. Huts composed of reeds, mats and rushes.

AREGONG, a town in India in Long. 79° 27′ E. and Lat. 20° 14′ N

AREN. MALAY. The Gomuti.

ARENARIA SERPYLLIFOLIA and A. Neilgherriensis plants occur in India.

AREND, ARAND. HIND. Ricinus communis.—*Linn.*

ARENGA SACCHARIFERA, *Labill.*

Borassus Gomutus, *Lour.*
Saguerus Rumphii, *Roxb. iii.* 626.
Gomutus, vel Saguerus, *Rumph.*

The Tree.		*The Sap.*	
Nawa	AMB.	Lagen	JAP.
Nama	,,	Barum or Baru ?	
Aren	JAV.	*The Gossamer.*	
Monchons ...	MACASS.	Karvel	JAV.
Anao	MALAY.	Kawal	,,
Aonouee... ...	,,	*The Hair.*	
Akel	PORT.	Makse	AMB.
Mandar	,,	Duk or Dok ...	JAV.
Sagwau	SP.	Iju Ejee or Eju.	,,
Sagwire... ...	,,	Gomuti	,,
Scho	TEN.	Anu	SUMATRAN.

A handsome tree of the Indian Archipelago, but growing now near Madras, in Bangalore, at Secunderabad and largely in the Nugger Division of Mysore. It occurs in abundance, in a wild state, throughout the islands of the Indian Archipelago, and yields its horse-hair-like substance, Javanese Duk, Malay, Iju or Eju or Gomuti, the last of which has given the name to the tree. The Gomuti is the only one of this genus of any commercial importance. It attains a height of 30 or 40 feet. Its commercial products are its palm wine, Barum or Baru, and its horse-hair like Iju orEju or Gomuti. Five species of this genus inhabit the islands of the Indian Archipelago. They are handsome trees, their favorite localities in the Archipelago, being dense shady forests and in the neighbourhood of rivers and rivulets; it comes into bearing about the seventh year, and continues to flower from 2 to 5 years. In general appearance the gomuti-palm very much resembles the sago, but the pinnæ of the leaves, which are erect in the latter, droop in the former like those of the nibong and many other palms. The palm wine is extracted from the plant by cutting off the large lateral bunches of fruit. When these are about half-grown, they are severed close to the division of the peduncle or stem, and bamboos are hung to them, a good tree with two incisions will produce about a gallon daily for two months; a fresh surface being constantly kept on the severed part by a thin slice being daily cut off the stem or peduncle, so that at the end of the above-named period it has altogether disappeared. The toddy is taken from the bamboo twice a day, and when fresh, has a very agreeable taste, and is a refreshing drink, with a very agreeable taste; however, the Dyaks always impart a flavour to it by placing a piece of a bitter kind of plant into the bamboos in which it is collected. In the Nuggur division of Mysore, a very sweet toddy is drawn from it. The cordage made from the hairy like filaments which are interwoven around the stem and about the axels of the leaves, is of excellent quality and is of great service to the Dyaks in their house building on account of its durability. This substance is also plaited into ornaments for the arms, legs, and necks, and its deep black and neat appearance renders it to the eye of a European, a much more agreeable ornament than either the brass or beads with which they abundantly adorn their persons.—(*Low's Sarawak, p.* 41). The tree was so highly thought of by Dr. Roxburgh that he introduced it largely into India, where the natives, took kindly to them. The fibre is almost imperishable, and is considered superior to all others yet made use of for the manufacture of artificial bristles for brushes, imitation horse-hair for stuffing, and such like purposes. A tree cut down in the Calcutta gardens yielded 150 lbs. of good sago meal. The black horse hair-like fibres surrounding the petioles of the leaves, form very good cordage and cables. In Java and Baleyn the sap is boiled down to syrup and allowed to concrete, but it always retains some degree of moisture. The best is of a yellowish colour but the inferior kinds, called saccharum nigrum, are blackish colored and are commonly mixed with the muscavadas of the cane. Its leaves, when very young, are eaten like the American Cabbage palm Oreodoxa oleracca, Endl. The fleshy outer covering of the fruit of the Gomuti, when macerated, affords a fiery liquor, appropriately denominated " hell-water," by the Dutch, and the seed, or rather the albumen when freed from its noxious covering, is made into sweetmeat by the Chinese. It therefore yields Sago, Palm wine, Gomuti Sugar and Baru.—*Roxb. iii.* 626. *Crawfurd's Dictionary. Archipelago : Seeman on Palms, Dr. Royle's Fibrous Plants. Voigt.* 637. *Veg. King.* 749. *Walton's State, p. Exh.* 1862, *pp.* 57, 116-118. *New, in literis. Marsden's Hist. of Sumatra, p.* 57, *Faulkner, Com. Dict. Low's Sarawak. p,* 40, 41 —See Fibres, Iju. Palm wine. Bara Cordege. Sago. Sugar. Thatch. Gomuti Sugar.

ARENQUES. PORT. SP. Herrings.

ARENTIS ISLAND, in the Java Sea, in Lat. 5° 10′ S. Long 114° 36′ E.

AREOLATED ERYTHROXYLON. Erythroxylon areolatum.

ARE TIGE OR TEGALU. (అరెతిగె-తేగలు, Dioscorea oppositifolia, *L'—R.* iii. 804.—*tige.*)

AREVALAMATHANA, a King mentioned in a copper plate found at Kaira in Guzerat of date A. D. 1059, his son was Udaia Ditya, and his grandson Salivahana. See Inscriptions, p. 389.

ARGA OR LEPTOTRACHEILUS, one of the Coleoptera of Hong Kong.

ARGAL also ARGOL, also ORGOL. Tartar.

ARGAUM, there are two towns in India of this name one in Long. 76° 6′ E. and Lat. 23°

45′ N.; the other in Long. 75° 16′ E. and Lat. 13° 35′ N.

ARGAUM, there are two towns in India of this name one in Long. 74° 2′ E and Lat. 21 29, N.; the other in Long. 76° 53′ E. and Lat. 19° 36′ N. At the former of these, in Berar, a battle was fought on the 29th Nov. 1803, in which the Bhonslah Rajah of Nagpore was defeated by General Wellesley, afterwards Duke of Wellington.

ARGEMONE MEXICANA. *Linn.*

Buro shial kanta	..BENG
Balu rakkasi..	...CAN.
Daturi	„
Mexican Argemone.	ENG.
Yellow-thistle; Mexican-poppy .	...ENG.
Gamboge thistle	„
Feringi-datura or Pila-datura ..	.. DUK.
Bher Band .	.. HIND.
Brumhu ..	„
„ Danda	„
Faringi datura.	HIND.
Sachianas?	„
Fico del Inferno	..IT.
Cardo Santo	„
Brahmi... ...	...SANS.
Brahmadandi ...	„
Inferno	.....SP.
Hico del Inferno	„
Cardo Santo	„
Bramha dandu	...TAM.
Bramhadandichettu	TEL.

This plant grows wild in abundant luxuriance in many parts of India, and its large yellow thistle shaped flowers appear in January, February and March. Their seeds and milk-like sap are used in native medicine, but they seem useless. The plant was introduced from Mexico in ballast.

The Oil called Cooraukioo oil,

Brumadandoo yennai .	TAM.
Broomadandie Noona .	TEL
Faringie datura ka tel,	HIND.
Oil of Prickly Poppy, or Jamaica yellow thistle...	.. ENG.

is, pale yellow, clear and limpid and may be obtained in large quantities from the round corrugated seeds. It is sometimes expressed by the natives and used in lamps, but is doubtless adapted to other and more important uses. The seeds yield a large quantity of oil, nearly as much as the common mustard seed. The oil is mild, resembling that of the poppy, and may be taken in one ounce doses without producing purgative effects. It is readily procurable, and so cheap that a considerable saving has been effected from its introduction by Dr. Thompson into the Malda jail for burning in place of mustard oil. *O'Shaughnessy. Hog. Veget. King.* 48. *Hooker f. et. Thom.* 251, *Madras Ex. Jur. Report. Calcut. Ex.* 1862.

ARGENT. FR. Silver.

ARGENTIFEROUS GALENA. See Galena.

ARGENTO. IT. Silver.

ARGENTO VIVO. IT. Mercury.

ARGENTUM. LAT. Silver.

ARGHA, or the Yoni, in hindu mythology, is Parvati's especial emblem; properly, the *Argha*, is the cup or circle from which the *Linga* rises, its outer edge or rim being the Yoni: Argha Patra is a boat shaped vessel used in the religious ceremonies of the hindus to contain the Argha, or offering made of Tila or Sesamum indicum, cusa-grass, perfumes, flowers, durva-grass and water. These vessels called Argha, or Patra, as also Argha-patra: the first, meaning a boat, or vessel; the latter, a cup, or goblet; remind us strongly of the Patera of the Romans. Patra is also a leaf, especially when formed into a cup or drinking vessel, as is very commonly done in India: the plantain leaf, of which it has been supposed the aprons of Adam and Eve were made, is easily formed into a convenient cup, and it is retained in that shape by a skewer. The Argha of the hindus is supposed to be identical with the Argo of the Greeks, but the subject of the Argha has given rise amongst the hindus to so many wildly speculative theories that reference may be made to Lustral ceremonies: Narayana: Yavana. Much of the ceremonial of the hindu religion, as in this instance, has had a physiological origin, and as many of their fasts, festival days and observances are also astronomical.

ARGHANATHA, or lord of the boat shaped vessel, is a title of Iswara or Siva. Arghanatha Iswara appears to have been literally translated by Plutarch, as Iris and Osiris, when he asserts that Osiris was commander of the Argo. This, as a name of Siva, is in allusion to the Argha's connexion with the Linga.—*Cole. Myth. Hind. p.* 374.

ARGHA, a town in India, in Long. 82° 46′ E. and Lat. 28° 16′ N.

ARGHAND-AB, a river near Candahar, in the hills. On its left bank is the famous grotto, the Ghar-i-Jamshid, sixteen miles S. W. of Candahar. The hills, the Panj Bai, overlook the river, the whole of the roof of the Grotto has the appearance of having been beautifully carved.

ARGHA-PATRA. See Argha.

ARGHANI-MAIDAN, is in the Southern slope of the Anti-Taurus: about 20 miles to its West rises the Western branch of the Tigris. See Tigris.

ARGHAWAN. HIND. PERS. Baber mentions, two Arghawans, quite different plants, the red and the yellow. The yellow is common on all the plains of Central Asia, also on those of Beluchistan, and Persia. In the latter region it is named Mahak. It is a shrubby plant, bearing clusters of yellow pea-like flowers, with compound alternate leaves. It is one of the very numerous natural objects whose beauty is not prized, because it is not rare. The red arghawan is a small tree.—*Masson's Journey, Vol.* iii. p. 10.

ARGHEL, EGYPT. The leaves of Solenostemma argel, a native of Syria. They are purgative and are employed in Egypt to adulterate senna.—*Hog. Veg. King. p.* ii. 5, *Simmonds.* See Cassia.

ARG'HIAM. See Hindoo.

ARGHUN, a Sind dynasty who held a brief sway from A. D. 1521 to 1554-5, a period of 34 years, during which Shuja Beg and his son Mirza Shah Hussain reigned. Arghun Khan Tar Khan, was grandson of Hulaku, grandson of Changiz Khan.—*Elliot, p.* 498.

ARGHUN KHAN of PERSIA, Kablai Khan's great nephew. His wife was *Zibellina*, theKhatun Bulugan, a lady of great beauty and ability. She had been married to Abaka, but on his demise, according to the marriage customs of the Mongols, she passed to the Urda of her stepson, Arghun. On her death, Arghun sent Marco Polo for another wife, out of the Mongol tribe of Bayaut, but Arghun died before the lady Kuka-Chin was brought and she passed to Ghazan, the nephew of Arghun, for Arghun had been succeeded by Khi-Kafu, his brother.—*Quart. Rev. July* 1868.

ARGHYA, SANS. A present, or gift indicative of respect to a superior. It matters not of what it consists, and is often of flowers.—*Hind. Th. Vol. i. p.* 312.

ARGILA, also **HARGILA**. HIND. The Adjutant bird, Leptoptilus Argila.

ARGOL. Potassæ bi-tartras : Tartar.

ARGON OR **ARGOND**. A mixed race resident at Lé, half Kashmiri and half Boti. The same term, in Yarkand, also, is applied to half bloods.

ARGON. See Argha : Lustral Ceremonies. Narayana. Yavana.

ARGONAUTA, the Argonaut or paper sailor, a genus of molluscs of the class cephalopoda order dibranchiata. Sec. Octopoda and family Argonautidæ. Several species occur in the seas on the South and East of Asia, viz., A. Argo; cornu ; cymbium ; gondola ; hians : thaustrum : tuberculata : and vitrea. See Carinaria : Mollusca, Octopoda.

ARGOWLI, a town in India in Long. 81° 15' E. and Lat. 24° 17' N.

ARGUS. Like the Argus of the Greeks, Indra is dipicted with a thousand eyes, and is hence called the thousand eyed god.

ARGUS COWRIE, Cypræa Argus, some have been sold at four guineas a pair..

ARGUS PHEASANT LUNGI.HIND. SeeAves.

ARGYLE of Damascus, is the common hookah of India, and the word is a corruption of the Persian Nargyle. The common hookah consists of a cocoa-nut shell containing water, in which an upright reed, or wooden pipe ornamented or otherwise and about eighteen inches long is fixed, to support the tobacco holder and lighted charcoal (chillam.) This perpendicular tube is grasped by the person who smokes; who draws the tobacco smoke through the water, by means of a similar reed, or pipe curved or straight reaching from the globe to the mouth. These tubes are sometimes made of silver, as well as the vase itself, and richly sculptured. This is the ordinary hookah of India, and termed by Europeans the bubble bubble from the noise created in the water. *Robinson's Travels. Vol.* ii. *p.* 226.

ARGYREIA, a genus of plants, belonging to the Convolvulaceæ, of which Voigt and Wight enumerate about seventy species as growing in India, *viz.* A. Acuta ; aggregata argentea : capitata : cuneata cymosa, elliptica ; festiva ; fulgens : hirsuta : floribunda : laurifolia ; Malabarica ; multiflora, pomacea ; setosa, speciosa ; tilifolia ; splendens : Wallichii ; Zeylanica. These have been principally brought from the genera Convolvulus, Ipomæa andLettsomia. The flowers of many are showy and ornamental. The leaves of A. bracteata of Choisy, Samudrapatta, Sanscrit ? are mentioned in Useful Plants as used for fomenting and poulticing scrophulous joints. The Nway-nee of the Burm. is the A. capitata.

ARGYREIA MALABARICA. (*Choisy*)

Kattu Kalangu,	MAL.	Paymoostey,	TAM.

Grows in Mysore, Malabar, common on the ghauts. Root cathartic. Considered by farriers a good horse medicine.—*Ainslie.*

ARGYREIA SPECIOSA.—*Swt.*

Convolvulus speciosus. *Linn.*
„ nervosus. *Burm.*
Lettsomia nervosa *Roxb.* ; 488.
Lettsomia speciosa. *Roxb.*
Ipomæa speciosa. *Pers.*

Bich-taruka ...	BENG.	Samudra-cheddi...	TAM.
Elephant creeper..	ENG.	Samudra-patra ...	TEL.
Samudra Shoka	HIND.	„ pala ...	„
Guli ..	„	Chandra-poda ...	„
Samudra-stogam	MALAY.	Kakkita, kokkita or kokkiti, Pala-samudra	TEL.
Samudra palacca...	SANS.		

Grows all over India : it has large deep rose coloured flowers. The leaves, applied with the green or upper side, are deemed discutient : The lower or white side is a maturant. *Voigt.* 351.

ARH. A river at Oodypoor.

ARHAR. SANS. Cajanus Indicus. Pigeon Pea or Hill-dhal Pea.

ARHATA, religious Buddhist counsellors who assembled at Pataliputra with Asoka. After 9 months consultation they sent out nine teachers, viz., one to Cashmir and Peshawar, a second to the country of the Nerbadah : a third to Meiwar and Bundi. A fourth to Northern Sind. A fifth,to the Mahratta country. A sixth to the Greek Province of Kabul, Arachosia. A seventh to the country of Himalayas,and the eighth toAva or Siam, that is, "the golden land," the aurea regis or the aurea chersonesus and the ninth to Lanka or Ceylon. Some circumstances of which we are uninformed must have prepared these regions for the reception of the ascetic doctrines of Sakya muni, which still prevail throughout Ceylon, Burmah, Siam, Thibet, and China, amongst about one-fourth of the human race. See Buddha, Lama. Sakya Muni.

ARIA, Herat,—also called *Heri*, and the river which it stands is called *Heri-rud.* This river of *Heri* is called by Ptolemy Αρειαρ by other writers *Arius*; and *Aria* is the name given to the country between Parthia (Parthuwa) in the west, Margiana (Marghush) in the north, Bactria (Bakhtrish) and Arachosia (Harauwatish) in the east. It is supposed to be the same as the *Hariava* (Hariva) of the cuneiform inscriptions, though this is doubtful. *Prof. Max Muller's Lectures, p. p.* 234-235.

ARIA, a country of Central Asia, known to the Greeks. It formed the sixth territory occupied by the Arian race in their migrations from the table land of Pamir to the south west part of it. It was known to the Arians as Haroyu, which Bunsen (iii. 463) considers to be Herat, the Harwa or Hariva of the cuneiform inscriptions, from the river Heri, or Heri-rud, but the Greek district of Aria, comprised the larger part of Segestan and part of Southern Khorasan. See Arian.

ARIA BEPON. MALEAL. അരിയവെപ്പു Azadirachta Indica.

ARIA DESA. See Hindoo, also Sakya Muni.

ARIAHA. See Arian: Hindoo.

ARI-ALU. MALEAL. അരയാലു Syn. of Ficus religiosa.—*Linn.*

ARIALU. See Arian: Hindoo.

ARIAN, also written Aryan; this intellectual race, originally argicultural, have been uninterruptedly masters of the world since the date of the Persian dominion and been the mightiest engine of civilization. In recent years, the researches of Chevalier Bunsen, of Professors Wilson and Max Muller and Mr. Wheeler seem to prove that much of the earlier history of two branches of this race are embodied in the Vendidad of the ancient Persians and present Parsees and in the Vedas of the Hindoos. According to Dr. Haug, the opening to the Vendidad or Code of the Fire-worshippers of Iran, dates from the most ancient times, and its contents are the reminiscences of the passage of the old Arians into India, on the south, and into Persia on the south west. Major Cunningham, also, in his learned work on the Bhilsa Topes (p. 15,) uses the term Arian in allusion to the race of Aryya, whose emigrations are recorded in the Zendavesta, who, starting from Ericene Vijo, gradually spread to the south-east, over Aryya vart'ha or Aryyadesa, the northern plains of India, and to the south-west, over Iran or Persia: he adds that the Medes are called Arioi by Herodotus. The original meaning of their name is said to have been equivalent to upper noble. It has also, however, been suggested that as the Arians were originally and essentially an agricultural and therefore a peasant race, they may have derived their name from their plough, and words relating to agriculture are found in several tongues. In Latin, it is aratrum, from aro, I plough. In Egyptian (in Nefruari) Ar is said to mean a plough. In Tamil it is Er ஏர், in Telugu, Araka అరక, in Sanscrit, along with Nangala or Nangara, it is also called Hala or Hara హరా and possibly the Arian race may have obtained their name from this implement of husbandry. According to Ch. Bunsen, the Arian emigration from Sogd to Bactria, took place prior to B. C. 5000, consequently before the time of Menes; their immigration into the Indus country, about B. C. 4000 and he thinks the opening to the Vendidad describes the succession of the foundation of the fourteen kingdoms, the last and most southern of which was the land of the five rivers (the Punjab). According to Chevalier Bunsen, in the same way that political tradition represents that of the Western aborigines (the Hamites and Shemites) so does the Arian one represent that of the Eastern tribe in the primeval land. The vast climatic change which took place in the northern countries is attributed in the Bible to the action of water. In the other, the sudden freezing up of rivers is the cause assigned. Both may have resulted from the same cause, the upheaving of the land by volcanic action, elevating portions and depressing into basins, such as the Caspian sea. Ten months of winter is now the climate of Western Thibet, Pamer and Belur, at the present day, and corresponds with that of the Altai country, and the district east of the Kuen Lung, the paradise of the Chinese. The country at the sources of the Oxus and Jaxartes, therefore, is supposed to be the most eastern and most northern point whence the Arians came. Wherever the Indians may have fixed the dwelling places of their northern ancestors, the Uttaru Kuru, we cannot he thinks, venture to place the primeval seats of the Arians anywhere but on the slopes of the Belur Tagh, in the highland of Pamer, between the 40th and 37th degrees of N. latitude, and 86° and 90° of longitude. On this western slope of the Belur Tag and the Mustagh (the Tian-Shang or Celestial Mountains of the Chinese) the Haro-berezaiti (Albordsh) is likewise to be looked for, which is invoked in the Zendavista, as the principal mountain and the primeval source of the waters. At the present day, the old indigenous inhabitants of that district, and generally those of Khasgar, Yarkand, Khoten, Turfan, and the adjacent highlands, are Tajiks who speak Persian, and who are all agriculturists. The Turkomans either came after them and settled at a later period, or else they are aborigines whom the Arians found there. On this point, Chevalier Bunsen likewise, remarks that the opening of that sacred code of the Vendidad, as certainly contains a historical tradition of the Arians, as does the 14th chapter of Genesis a historical account of the eldest recorded war between Mesopotamia and Canaan. The Fargard is divided into two great parts, one comprising the immigration from the eastern and north eastern primeval countries to Bactria, in consequence of a natural catastrophe and climatic changes, the other the subsequent extension of the Arian dominions through Eastern Central Asia, which terminated in the Punjab. The following passage contains a genuine description of the climate of the primeval land of the Arians, Iran Proper. There Ingromaniyus (Ahriman), the deadly, created a mighty serpent, and snow, the work of Deva—ten months of winter are there, two of summer. The following passage, which is omitted in the Huzuresh or Pehlevi translation—and which Lassen considers an interpolation, is irreconcileable with the above. The warm weather lasts seven months and winter five. The fathers of the Arians, therefore, originally inhabited Iran Proper, the land of Pleasantness and they left it only in consequence of a convulsion of nature, by which a great alteration in the climate was caused. When the climate was altered by some vast disturbance of nature, the Arians emigrated. They did not however follow the course of the Oxus, or they would have come in the first instance to Bactria, and not to Sogd. Their course, therefore was more northerly. Its present climate is precisely what the record describes it to have been when the changes produced by the above commotion took place. It has only two months of warm weather. In the course of the Arians after their expulsion from the primeval country, between Sogdiana and the Sutlej, they formed, by the conquest of fourteen countries, as many kingdoms, in the whole of the Eastern part of Central Asia and India Proper, in the country of the Indus and its confluents. In the intervening countries, they passed amongst the Turanians (Scythians and Turcomans) and there is evidence that the inhabitants whom they found in India, were likewise Turanians. The main direction of these travellers, was southerly, and on the southern bank of the *Caspian* is a group, the nucleus of the Arian *Media*. *Professor* Max-Muller gives, as follows, the successive Arian settlements :

Sogdiana in Samarcand, formed the first settlement of the Arians : Sughda, afterwards spelled Sugdia and commonly Sugdiana, is pre-eminently the country,—as being the home of the Fire-worshippers. It is in the 38th degree of latitude, where Mara Kanda (Samarcand) is situated, a paradisiacal land, fertilised by the river Sogd, so that Sogd and Paradise are used synonimously by the later writers. The Vendidad (ii. verse 5) says it was created as the second best of the regions and countries.

The second settlement was in Mouru, (Merv, Margiana.) This is Margiana (from the river Margus,) now Marghab (Margus-water,) Margush in the cuneiform inscriptions : a fruitful province of Khorassan surrounded by deserts. In the Record, (iii. verse 6) it is described as "the third best land, the mighty and pious Mouru, Marw,) . . . . Ahriman created there wars and marauding expeditions."

The third settlement was in Bokhdi (Bactria.) It (iv. v. 7,) is stated that the *fourth* best land was the fortunate Bokhdi, with the lofty banner : here Ahriman created buzzing insects and poisonous plants." Bokhdi is certainly Bactria (though Burnouf had doubts about it,) the land of the Bactrians. The "tall plumes" indicate the imperial banner (mentioned also by Firdousi,) and refer, consequently, to the time when Bactria was the seat of empire. Up to this time nothing is said about Media, though she conquered Babylon B. C. 1234.

"*Their fourth settlement was in Nisaya* (Northern Parthia.) It (v. verse 8, says "the *fifth* best land is Nisaya ; there Ahriman created unbelief." This is the Nisaia of Ptolemy, famous for its breed of horses, commonly called Nisa, the renowned district of Northern Parthia, bordering on Hyrkania and Margiana. 'The city of Nisæ is situated on the Upper Oxus. The term "unbelief" in the record, signifies the apostacy from pure fire worship. Here, therefore, the first schism takes place.

"*The fifth settlement in Haroyu* (Aria.) Haroyu is Herat, of which frequent mention is made subsequently, and the Hariva of the cuneiform inscriptions. Its name has no connexion with the Arians, but comes from the river now called "Heri," abounding in water. The Greek district Aria comprises the larger portion of Segestan, and forms part of Southern Khorassan. In the Record (vi. verse 9,) it is mentioned that the fifth best land was Haroyu, the pourer out of water, here Ahriman created hail and poverty."

"*The sixth settlement in Vekereta* (Segestan.) This country is the home of Rustum. Dushak is the capital of Segestan. To the south east *of it is the land of the Parikani known to* the ancients as a part of the Saken country (Sakastene.) The greater part of it is now a desert, but it was once cultivated. Here again in the words of the Record, there may be allusion to a schism, which, in that case, would be the *second historical* one. The Record runs (vii, verse 10.) "Vekereta, in which Duzhaka is situate ; there Ahriman created the Pairi-ka Khnathaiti." (*Herod*, *iii*. 94 *Comp Ritter*, *viii*. 59.) Recent travellers have also found nomadic tribes between Media and Gedrosia, who worshipped the Peri (Fairies,) but were fire-worshippers also.

"*The seventh settlement in Urva* (Cabul.) The Record alludes to (in viii. verse 11.) Urva, proved by Haug to be Cabul, the identity of which was previously unknown.

"*The eighth settlement in Khnenta* (Candahar) (ix. verse 12.) "Khnenta, where Vehrkana is situated." According to Haug, by this country, Candahar is to be understood: Vehrkana cannot be Hyrcania, as is generally supposed, but is the city now called Urghandab, situated in Candahar. The curse of Ahriman was pœderastism, a vice known historically to be un-Arian and Turanian.

"*The ninth settlement in Haraquaita* (Arachosia,) (x. verse 13. (Haraquaita, denominated the fortunate; the Harauwatis of the cuneiform inscriptions; the Arachosia of the classics. The work of Ahriman here was the burying of the dead. Another apostacy therefore from the true faith.

"*The tenth settlement in Hetumat* (district of Helmund,) (xi. verse 14.) "Hetumat, the wealthy, the splendid," is the valley of the present Helmund, the Etymander of the classics. The mischief inflicted here by Ahriman was the sin of sorcery.

"*The eleventh settlement in Ragha* (Northern Media.) (xii. verse 16) "Ragha with the three races is doubtless the *Rhagæ* of Strabo and Ptolemy, the greatest city in Media," south of Teheran. This north-eastern portion of Media includes the passes of the Caspian. The possession of these passes was a protection to the other Arians, and at the same time the key to the whole of Media, and therefore Persia. The district is called also Choana (Qwan.) Ahriman established here unbelief in the spiritual supremacy of Zarathustra—another schism. At all events another portion of ancient Arian history.

"*The twelfth settlement in Kakhra* (Khorassan.) (xiii. verse 17.) Kakhra is held by Spiegel and Lassen to be the district of Kihrem mentioned in Firdousi. Haug identifies it with the cities of Karkh in Khorassan. The evils done by Ahriman here was the burning of the dead. This was therefore an illegal practice, like the sin of the Arachosians, who were so profane as to bury their dead. All this implies the organization of a hierarchical power in Sogd and Bactria, although not a sacerdotal caste.

"*The thirteenth settlement in Varena* (Ghilan.) (xiv. verse 18.) "Varena with the four corners," Haug has shown to be Ghilan. The curse of Ahriman was irregular menstruation.

"*The fourteenth settlement was in Haptu Hindu* (Punjab). (vi. verse 19.) The Land of the Seven Hindus, that is, the country between the Indus and Sutlej. In the Vedas the country of the Five Rivers is also called the Land of the Seven rivers. The traditional Greek names also are seven. The Indus and the Sutlej are each formed by the junction of two arms, which, in their earlier course were independent. According to this view it stands thus:

1. Kophen (Kubhá)	I. Indus.
2. Indus, Upper	
3. Hydaspes (Bidaspes)	II. Hydaspes.
4. Akesines (Asikni)	III. Akesines.
5. Hyarotis (Hydraotis, Iravati-Parusni	IV. Hydraotes.
6. Hyphasis (Vipasa)	V. Hyphasis.
7. Saranges (Upper Satadru, Sutlej, Ghara)	

"But it is not, he says, only unnecessary to suppose, as Ritter does, that the country extended as far as the Sarasvati, but such a supposition would be at variance with history. It is now ascertained from the Vedas that the Arians passed the Sutlej, at a very late period, and settled in what is now India. It was not till their fourteenth settlement after the emigration from the primitive country in the north, that they passed the Hindu-Kush and the Indus. The previous resting places form an unbroken chain of the primitive abodes of the Arians (the Free or the Land owners). The last link in those earlier settlements is the land of the Afghans, on the western slope of the Hindu-Kush. Lower down to the westward there is but one settlement necessary to secure their previous possessions, namely, the two districts of Ghilan and Masandaran, with the passes of the Caspian. This settlement more to the north-west (Ghilan and Masandaran) forms therefore also a connected group. Putting these two groups together, we shall find that there is no one single fertile district in the whole of Eastern Central Asia of which the Arian races did not possess themselves except Southern Media and all Farsistan of Persia. Now as history exhibits the Arian race spread throughout the whole of Media, but as dominant only in Persia, it follows that Ghilan and Masandaran formed the nucleus of these ancient possessions which afterwards became so important and celebrated. There cannot therefore be a more unfortunate the— than the one which makes Persia the original seat of Zoroaster and his doctrine. History as well as personal observations at the present time, supply unequivocal evidence of the Iranian having been the popular language in all these districts. The names in the Vendidad moreover, when compared with Sanskrit, turn out to be regular ancient formations, although like the old Bactrian formations, as preserved in India, they have been gradually weakened down. We know, lastly, from the inscriptions of the Achæmenidæ, several of them, which have become historical and geographical designations at a later period. It is impossible under these circumstances, to consider the Vendidad as a modern fiction, or as a fragment of some geographical compendium. The fact of their having suddenly retraced their steps from the south-west, and formed a connected north-eastern group about the Caspian Sea, would be inexplicable, supposing it to be a fiction. (*Bunsen's Egypt's Place in Universal History* : *from p.* 462 to 467)

In India the term Aria, as a national name, fell into oblivion in later times, and was preserved only in the term Aryavarta, the abode of the Aryans. But it was more faithfully preserved by the Zoroastrians who migrated from India to the north-west, and whose religion has been preserved to us in the Zendavesta, though in fragments only. Now Airya in zend means venerable, and is at the same time the name of the people. In the first chapter of the Vendidad, where Ahuramazda explains to Zarathustra the order in which he created the earth, sixteen countries are mentioned, each when created by Ahuramazda, being pure and perfect ; but each being tainted in turn by Angro-mainyus or Ahri-man. Now the first of these countries is called *Airyanem vaejo,—Arianum semen,* the Aryan seed, and its position must have been as far east as the western slopes of the Belur Tag and Mustag, near the sources of the Oxus and Yaxartes the highest elevation of Central Asia. From this country, which is called their seed, the Arians advanced towards the south and west, and in the Zendavesta the whole extent of country occupied by the Aryans is likewise called Airya. A line drawn from India along the Paropamisus and Caucasus Indicus in the east, following in the north the direction between the Oxus and Yaxartes, then running along the Caspian Sea, so as to include Hyrcania and Ragha, then turning south-east on borders of Nisaea, Aria (i e. Haria), and the countries washed by the Etymandrus and Arachotus, would indicate the general horizon of the Zoroastrian world. It would be what is called in the fourth cardé of the yasht of Mithra, " the whole space of Aria," *vispem airyôsayanem* (totum Ariæ situm.) Opposed to the Arian we find in the zendavesta the non-Arian countries (anairyao dain-havo,) and traces of this name are found in the Αναριαχαι a people and town on the frontiers of Hyrcania. Greek geographers use the name of Ariana in a wider sense even than the zendavesta. All the country between the Indian Ocean in the south and the Indus in the east, the Hindu-kush and Paropamisus in the north, the Caspian gates, Karamania, and the mouth of the Persian gulf in the west, is included by Strabo (XV. 2) under the name of Ariane, and Bactria is thus called by him " the ornament of the whole of Ariana." As the Zoroastrian religion spread westward, Persia, Elymais, and Media all claimed for themselves the Arian title. Hellanicus, who wrote before Herodotus, knows of Aria as a name of Persia. Herodotus (VII. 62) attests that the Medians called themselves Arii ; and even for Atropatene, the northernmost part of Media, the name of Ariania (not Aria) has been preserved by Stephanus Byzantinus. Manu speaking of the Palava tribe of Kshatrya, who had neglected to reverence brahmans, styles them Dasya, whether they speak the language of the Mlech-cha or that of the Arya, and the people to whom he there alludes seem to have been Medes occupying the valley of the Indus. As to Elymais its name had been derived from *Ailama,* a supposed corruption of *Airyama.* The Persians, Medians, Bactrians, and Sogdians all spoke, as late as the time of Strabo. nearly the same language, and we may well understand, therefore, that they should have claimed for themselves one common name, in opposition to the hostile tribes of Turan. (*Muller's. Lectures, p. from* 226 *to* 228.) And when, after years of foreign invasion and occupation, Persia rose again under the sceptre of the Sassanians to be a national kingdom, we find the new national kings, the worshippers of Masdanès, calling themselves, in the inscriptions deciphered by De Sacy, " Kings of the Aryan and un-Aryan races," in Pehlevi, *Iran va Aniran* : in Greek, Αριανων Και Αναριανων—.(*Muller's Lectures, p.* 229.)

West of Armenia, on the borders of the Caspian Sea, we find the ancient name of *Albania.* The Armenians call the Albanians *Aghovan*, and as *gh* in Armenian stands for r, or or l, it has been conjectured by Bori, that in *Aghovan* also the name of Aria is contained. This seems doubtful. But in the valleys of the Caucasus we meet with an Arian race speaking an Aryan language, the *Os* of *Ossethi*, and they call themselves *Iron.* (*Muller's Lectures, p.* 230.) Briefly, to recapituate, the Arians according to *Bunsen* (iv. 487) emigrated out of the country of the sources of the Oxus *Gihon*) and Jaxartes, B. C. 11,000 to 10,000, (and (iv, 491,) about B. C. 7,250 to 5,000, the Arians separated into Kelts, Armenians, Irenians, Greeks, Slaves and Germans. According to Bunsen (iii. 584) the separation of the Arians was prior to their leaving Sogd. The emigration from Sogd to Bactria, after the separation, took place B. C. 5,000, consequently before the time of Menes. The immigration into the Indus country about B. C. 4,000 and Zoroasters reform in Bactria about the time of Menes or half a century later. Bunsen (iii, 584) and he is of opinion that B. C. 5,000 to 4,000 the Arians formed their kingdoms in Central Asia, as far as Northern

Media, Cabul and Candahar. B. C. 4,000 they migrated into the Indus country.

Of their history while residing in the Punjab, we must search the Vedas which furnish much information regarding the origin and early state of the races who are now called Hindus. The people among whom the Vedas were composed, had evidently passed the nomade stage. They had no money, and their wealth consisted of cattle, horses, sheep, goats and buffaloes, and the cow was the medium of barter. By the Rig-Veda (vol. 1, p. 165 : vol. 2, pp. 127 and 225 ; and vol, 3, pp. 163, 276, 416 and 453,) it is evident that the cow was then not reverenced and that the race who composed these hymns, were a cow-killing and beef eating, spirit-drinking people. Cow-stealing was a great crime. We find mention in their hymns of cities of commerce, merchants, sailors, of weapons of wood and iron, of chariots, of heralds, travellers and inns for their accommodation, and even of the vices of a primitive civilization. They had roads and ferries; bullock carts and waggons ; they had carriages and war chariots drawn by horses, and the carriage was made of wood with brass wheels and iron rims and pillars. It had seats and awnings, was easy going and sometimes inlaid with gold. (Professor Muller, Vol. 1, pages 94 and 175 : Vol. 2, pp. 37 and 256.) Iron and steel were in use, for there is mention of iron armour, of arrows tipped with steel, and Porus gave thirty pounds of steel to Alexander. They had a knowledge of the sea ; had halls of justice and halls and chambers of sacrifice, but apparently no temples or images. Women held a high social position. The Rishi and his wife, converse on equal terms, go together to the sacrifice, and practice austerities together. Lovely maidens go in a procession, and grown up daughters remain without reproach in their father's house. But we read of drunkenness, polygamy, (Vol. 2, p, 12) cheating, gambling, abandoning of children, thieves, courtezans and eunuchs. Kakshivat, an illustrious Rishi marries ten sisters at once (Vol. 2, p, 17), and polyandry seems to have prevailed for in an allegory, Kakshivat says, " Aswins, your admirable (horses) bore the car, which you had harnessed, (first) to the goal, for the sake of honour, and the damsel, who was the prize, came through affection to you and acknowledged your (husbandship) saying, you are my lords (Vol. 1, p. 322).—*Calcutta Review*, 1859.

Mr. Wheeler says that the worship of the Aryans, in the times of their approaching the Punjab, seems to have been simple, patriarchal, and conducted by the father of the family : to have been a worship of fire, and subsequently they personified the earth, sky, food, wine, months, seasons, day, night, and dawn.—*Hist. of India.*

Amongst the Arian hindus, the sacrifice of a horse, the Aswamed'ha, seems to have been practised in their religious rites. There are two hymns in the Rig Veda, describing the rite, and which leave no doubt, that in the early religion of the race, this sacrifice, as a burnt offering to the gods, was had recourse to. It was even then, however, falling into disuse, and was existing as a relic of an antevedic period, imported from some foreign region, possibly from Scythia, where animal victims, and especially horses, were commonly sacrificed. And in still later times, the Aswamed'ha consisted in certain ceremonies ending in the liberation of the horse, as throughout Southern India is still practised with a bull or cow, many of which are met with in every village, freed or let loose in the name of Siva or Vishnu.

At present, in India, the native Arian races hold to the three great religions, buddhism, bramanism, and zoroastrianism, and the followers of the Jain belief are all of this race, many of whom also, in Cashmere, Affghanistan and Rajputana have become mahomedans. Amongst the Arian races who went to the north-west, there are no grounds for the belief that the Saxons continued to offer human sacrifices after their settlement in Great Britain, but in their own land the immolation of captives in honour of their gods was by no means uncommon. The great temple at Upsal, in Sweden, appears to have been especially dedicated to Odin, Thor and Frea. Its periodical festivals were accompanied by different degrees of conviviality and licence, in which human sacrifices were rarely wanting, varied in their number and value by the supposed exigency. In some cases even royal blood was selected that the imagined anger of the gods might be appeased. In *Scandinavia*, the anthority of the priest was much greater than it would appear to have been among the *Anglo-Saxons.* It was his word often, which determined where the needed victims should be found, It was his hand that inflicted the wound, and his voice which said, " I send thee to Odin," declaring the object of the sacrifice to be that the gods might be propitiated, that there might be a fruitful season or a successful war. The tendency of the Arian race is to form national and political communities, marry one wife; and worship one supreme and spiritual deity. The Turanian tendency is to have little natural or political cohesion—marry one or more wives, without much sentiment, to worship gods and heroes without much idea of a spiritual existence, beyond that implied in the notion of ghosts and devils.—*Wheeler's Hist. of India*, *p* 7. *Bunsen's Egypt, Vol. iii. pp.* 499 *to* 601 *and Vol. iv. pp.* 40 *to* 561. *Prof. Max Muller's Lectures, pp* 69 108 ; 201. *Calcutta Review* 1859, *Edinburgh Review,* See Arin, Andhra, Aborigines, Greeks of Asia :

Mhlecha, India, pp 310, 312, 322 : Hindu, Kabul, pp. 436, 437, 435, 438 : Kurava, Aborigines of Southern India, Sanscrit, Inscriptions, pp. 872 : 371, Pandava, Sudra, Sakya Muni, Mahabarita, Sarasvati, Turk, Yadu, Yavana.

ARIANA, (Iran) the general name for the country east of Persia and Media, as far as the Indus. See Aria. Greeks of Asia. Iran :—Kabul, p. 433, 437.

ARIAN ABAKHAFASA, supposed to be an Arian territory near Kabul and the Paropamisus. See *Kabul, p.* 439.

ARIAN COOPANG, a town in the south of peninsular India, in long. 79° 54′ E. and lat. 11° 56′ N.

ARIAN HINDUS, See Hindoo. India, p. 312. Sacrifice. Iran.

ARIAN LANGUAGES, See Aria. India, p. 311.

ARIAN MIGRATION, See India, p. 309.

ARIAN PALI, the Arian language in a transitive state from the old Arian tongue.

ARIA PALUS, of the ancients, is a lake formed by the accumulation of the waters of the Helmund at the southern extremity of its course and called the lake of Zarrah by Europeans. This is a contraction of Zarrenj, the ancient capital, and this again represents the Zarangi or Drangi of the Greeks. In old Persian books it is called "Daria-Reza or little Sea," the present inhabitants of Seistan call it Meshila-i-Rustum, also Meshila-i-Seistan. Meshila merely means, in Arabic, a muddy swamp. The ordinary name of the lake is Hamûn or the expanse.—*Ed. Ferrier's Journ.* See Helmund, p. 428-9.

ARIARATHES OF CAPPIDOCIA, is supposed to have killed Arsaces I, B. C. 254-250, the first of the Arsacidan kings.

ARIARIUS, a satrap of Phrygia, whose son Erythras was banished by Darius to Kishm Island. Nearchus was told that Erythras gave his name to the adjoining sea.

ARIA VARTA, the land of the Arians in India. See Hindoo. India, pp. 308-9.

ARIA VELA. Maleal. അരിയവിള Cleome viscosa : also Polanesia felina, D. C.

ARIDÆUS, brother of Alexander the Great. He did not succeed to Alexander's kingdom.

ARIDURUM, YELLIKOOD-PASHA-NUM. Tam. Arsenic.

ARIETI PANDOO. Tel. Vella Käi. Tam. Plantains.

ARIK-I-GOWGIRD. عرق گوگرد Pers. Sulphuric Acid. See Ark.

ARIKE or ARIKELU. అరికె-అరికెలు. Paspalum scrobiculatum, *L.*

ARIKELU. అరికెలు. Tel. Paspalum frumentaceum.

ARIKOTA, అరికోట. Tel. Poivrea Roxburghii, *D. C.*—Combretum decandrum, *R.* ii. 232.

ARIMEDAMU—S. అరిమెదము. Vachellia farnesiana, *W.* 66.

ARIES. The Tauric and Hydra foes, with which Jason had to contend before he obtained the fleece of *Aries*, are the symbols of the sun-god, both of the Ganges and the Nile; this fable has occupied almost every pen of antiquity, but is clearly astronomical, as the names alone of the *Argha-Nat'h*, sons of *Apollo, Mars, Mercury, Sol, Arcus* or *Argus, Jupiter, Bacchus, &c.* sufficiently testify, whose voyage is entirely celestial. *Tod's Rajasthan, Vol.* I. p 601.

ARIGÆUM, a town near the territory of the Siah Posh Kaffirs, at which the Greeks in their advance on India established a military colony. See Kaffir.

ARIL, or AHRE NUDDY, runs near Sikri in Budaon.

ARIL RAMGANGA, a small river near Bareilly.

ARIM, a town in India in long. 82° 31′ E. and Lat. 20° 39′ N.

ARIMATHEA : between Ramleh and the hill-country, a distance of about eight miles, is the rolling plain of Arimathea. This and the greater part of the plain of Sharon, is one of the richest districts in the world. The soil is a dark brown loam, and, without manure, produces annually superb crops of wheat and barley —*Taylor's Saracen, p.* 52.

ARINEE, a river near Jeypore.

ARINGHE. It. Herrings.

ARIPO, a town in Ceylon in long. 80° 8′ E. and lat. 8° 30′ N. Pearl oysters are fished up on the banks near it. See Pearls.

ARISHTA NEMI was the near kinsman of Krishna, they being the sons of Basdeo and Samudra, the eldest and youngest of ten brothers, of the Yadu race. These were of Indu or Chandu, origin, and supposed to have been buddhist polyandrists.

ARISHTA PHENILA. Sans. Sapindus emarginatus. Soap nuts.

ARISHTA ? Beng ? Azadirachta Indica.

ARISI. Tam. அரிசி husked grain of Oryza sativa.—*Linn. Rice.*

ARISÆMA, a genus of the Araceæ or Arum tribe of plants, A. gracile is mentioned by Dr. Honigberger (p. 234) as occurring abundantly in the Himalayas, on the south side of the Pir Panjal from the top to the bottom. Its juice very acrid, the roots are considered by the Hakeems to be an excellent remedy against every description of animal poison. A. Dracontium and A.

triphyllum are introduced plants.—*Honig. p.* 234. *Voigt, p.* 688.

ARISTIDA SETACEA. *Linn.* Broom grass.

ARISTOLOCHIA, a genus of the birthwort tribe, of which Roxburgh mentions four species, but Voigt names eleven as growing in India. A. acuminata growing in many places is cultivated as a flowering plant, for its large, dark greenish purple flowers. A. Anguicida : odoratissima : labiosa; cymbifera, clematitis : fœtens : and braziliensis are introduced plants.

Aristolochia Longa and A. Rotunda natives of the south of Europe, and Kashmir are found in the medicine bazars of India, under the names of *Zurawund tuweel* (Pers. *duruz*, long) and *Zurawund mooderuj* (Pers. *gird*, round,) with *Aristolochia* as the Greek name. The roots of A. Longa are given by the Hakeems, in diseases of the womb, ulcers and affections of the gums : the latter in itch, leprosy, for drying up sores, destroying lice and intestinal worms; also for promoting the renal and menstrual secretions. —A. Longa, Zurawand-tuweel, Ar. Pers. occurs in whitish, twisted pieces, the size of a finger, and nearly tasteless.—*O'Shaughnessy, p.* 568.

ARISTOLOCHIA SACCATA. In Sikkim, in the valley of the Teesta, are many fine plants, but Dr. Hooker especially noticed the Aristolochia saccata, which climbs the loftiest trees, bearing its curious pitcher-shaped flowers near the ground only : its leaves are said to be good food for cattle.—*Hooker, Vol.* II. *p.* 7.

ARISTOLOCHIA BRACTEATA. *Retz. Roxb. iii.* 490.

Gundatu	DEKH.	Addatinapalé ...	TAM.
Kira-mar... ...	„	Gadide-gadda	
Worm-killer ...	ENG.	Purugu pallay...	TEL.
Birthwort ...	„	Gadide gadapara...	„
Cattra-bangha ...	SANS.	Kadopara	„
Pattra	„	Gardi Gavapu ...	TULU.

A plant with a persistent nauseously bitter taste : grows on cultivated ground on the Coromandel coast; two of the leaves bruised with water are given as a remedy in diarrhœa with colic ; an infusion of the dried leaves is deemed anthelmintic and given in snake bites. *O'Shaughnessy, page* 568. *Roxb. iii.* 490. *Voigt,* 313. *Cal. Cat. Ex.* 1862.

ARISTOLOCHIA INDICA. LINN. *Roxb.* iii. 489.

Eshwurmul...	...BENG.	Hari, Iswari.,	...SANS.
Caykhoaica..	COCH.-CHIN.	Irkamula... ...	„
Saosauder...	...CYNGH.	Isri-vel...	„
Satasanda... ...	„	Isra-bel...	„
Indian Birthwort...	ENG.	Isar-mel...	„
Sampsun	DUKH.	Saksandar ...	SINGH.
Isrivel...	„	Satasanda	„
Isarmel... ...	...HIND.	Perumarandu...	...TAM.
Ishurmul... ...	„	Talashrnbe	„
Israbel...	„	Dula, Govila...	...TEL.
Hari...	„	Govila...	„
Wallas...	JAV.	Isara...	„
Perumurundu...	MALEAL.	Isara vera, or Chettu	„
Kudalewegam ...	„	Tella & nalla Iswara „	„
Kareloe Vegon...	„		

A perennial twining plant, growing every where in the copses and jungles of India and Ceylon, flowering in the wet season, the root is like that of sarsaparilla, perennial. The root is nauseously bitter, and is given as an emenagogue, and in paroxysms of gout. It is also considered by the native practitioners to be a valuable remedy in the diarrhœa of children proceeding from dentition. The dose given in India, to an adult, of the decoction of the root, is an ounce to an ounce and a half twice daily. Also in native medical practice employed in lues, as an emenagogue, also to procure abortion and as an antidote to snake bites.—*Roxb. iii.* 490-1. *Voigt,* 313. *Cal. Cat. Ex.* 1862. *O'Shaughnessy, p.* 568.

ARISTOLOCHIA LONGA.

Zerawand-ut-tawil..	ARAB.	Birthwort : longeared.	ENG.
Aristolochia..	„	Zerawand-daraz	PERS.

Is used both in powder and mixture ; employed as a tonic in diseases of the chest and brain, and especially in head-ache. Dose 90 grains, price 2*s.* per lb.—*Cat. Ex.* 1862.

ARISTOTLE, the tutor of Alexander the Great ; his fame, in India, is wholly confined to the mahomedans, who style him Aristun. His pupils and followers were the historians of India after Alexander's time. See India. Scylax. Veda.

ARITA also RITHA. MAR. Syn of Sapindus emarginatus. Soap-nut : Sapindus saponaria.

ARITI CHETTU, Musa paradisiaca, *L. M.* sapientum, *R. i,* 663. Ariti pu, TEL. అరటి పూవు. the flower. Ariti pundu, అరటిపండు. the fruit.

ARIUS, a genus of fishes, of the Ganges, and of the Malay and Javanese seas, from which isinglass is obtained.

ARIUS ARIUS. *Buch. Ham.*

Pimelodus arius, B. H.
Ikan Saladu, MALAY.
„ Surdudu. „

This fish inhabits the Gangetic estuaries ; near Pondicherry, and the estuaries near Penang, the Malay Peninsula and Singapore. It is 1ft. 10 in. long ; forms an article of food, and more than any other of the Siluridæ contributes to the isinglass of commerce.—*Cantor.*

ARIUS MILITARIS. *Linn.*

Silurus militaris, *Linn.*
Osteo-geneious, *Bleeker.*

This is a foot and a half long, inhabits the Coromandel and Malabar coasts, the Ganges, Irawadi, and the seas and estuaries of the Malay Peninsula. Its air-vessel is preserved as isinglass.—*Cantor.*

ARIUS TRUNCATUS, Cuv. and Val. This is under a foot in length. It occurs in the seas of

Penang and the Malay Peninsula, but is so rare that it furnishes little of the isinglass of Commerce.—*Cantor.*

ARIVITA, Tel. అరివిట Eugenia bracteata, *R.*

ARIYAPORIYAN. Mal. Antidesma bunias.

ARJA. Hind A class of women mendicants in Central India respected for their knowledge, not their conduct. Women, who have adopted the vagrant life which this class pursue are never allowed any intimate intercourse with families.—*Malcolm's Central India, Vol. ii. p.* 193.

ARJAKAM. అర్జకం Ocimum viscosum.—*R. iii.* 3.

ARJAN, Pers. آرجن also Arzhan and Arzhanah: according to Ouselev, this tree is a species of the *Badam-i Kohi* the mountain almond, or *Badam-i-Talkh,* the bitter almond. Its fruit is used medicinally, the wood for walking-sticks or bludgeons; and the bark or skin is twisted or wrapped about bows.—*Ouseley's Travels, Vol. I, p.* 306.

ARJANNA. H. A tribe of kunbees or cultivators in W. India.—*Wilson.*

ARJUK. Ben. Ocimum sanctum.

ARJUN. Ben. Pentaptera arjuna. P. terminalia. P. alata. T. glabra.—*Roxb.*

ARJUN MAL, the fifth Guru of the Sikhs, born A. D. 1553, died 1606. In 1581, he compiled the Adi-Granth, the first sacred book of the Sikhs.

ARJUNA, a hero of Central India. He was the son of Pandu who was the son of Vichitra-Viria, the second son of Santana. From him descended this hero Arjuna as did his brave rival Duryo-dhana, from his elder brother Dhrita-rashtra. Arjuna means white in distinction to Krishna, black. Arjuna was the friend and favorite of Krishna. Arjuna's mother was Konti, one of Pandu's wives, and there were five sons born to Pandu, of his two wives, of whom Arjuna was the most distinguished. The descendants of Krishna and Arjuna carried down the Lunar line of Indian chieftains, as the Cushites and Lavites, from Cush and Lava, sons of Rama, carried down that of the Sun. He was expert in arms, and excelled in archery. He appeared at the exhibition of arms held at Hastinapur and subsequently, disguised as a brahman, at the Swayamvara of Draupadi where he gained the day, and won Draupadi, who then became the joint wife of himself and four brothers. Arjuna is currently said to have been married to Subhadra, sister of Krishna, but the story is not authentic. He fought bravely at Kurukshetra, and killed Bhishma, Jayadratha and Karna. Much of his latter history is mythical, but he and his four brothers seem to have died on the Himalayas, and his grandson Parikshit succeeded to the kingdom of Hastinapur. Arjuna on one occasion followed the horse let loose on the Aswamedha ceremony, into the country of the Amazons, and was there defeated by their queen Paramita.—*Bunsen, p.* 553. *Wheeler's History of India, Vol. i* See Indbra. Inscriptions, pp. 376, 389 and 391. Kasambi. Krishna, pp. 545. Mahabarata: Malwa; Pandu: Polyandry: Rama: Sikhs.

ARJUNO. Ben. Lagerstræmia Reginæ

ARI, Tel. Bauhinia racemosa, *Lam—W. & A.* 912; B. parviflora, *R. ii.* 323.

ARK. See Cocoa-nut Palm.

ARK Sans. ARKA, also AKUND. Sans. Calotropis gigantea.

ARK. Arab. Hind. Pers. A citadel, or smaller inner castle constructed within a larger fortress. It is an Arabic term and sometimes pronounced Arak, but more generally Ark. It literally signifies the citadel, and is never used to describe any other fortification. But, as princes in the East generally lived in the Ark the word from thence often came to be applied to a palace, as the Latin *arx,* comprising the palace, (*Dewan-Khanah*): and, that the ancient kings placed their habitation in the *arx* or citadel for safety, we learn from Servius (in Virg. Æn. IV. 410.) "Regium enim fuit habitare in arcibus propter tutelam."—*Malcolm's History of Persia. Ouseley's Travels, Vol. II p.* 18. *Fraser's Journey into Khorasan, p.* 85

ARKA. A town in Kanarah, where brahmans say Sri Yeo the holy spirit is worshipped

ARKA BANDHU, a name of Buddha meaning the kinsman of the sun.

ARKALU. Tel. Harmala ruta.

AR KANTA. Beng. Alangium hexapetalum

ARKAIRY, a town in India, in Long. 77° 5′ E and Lat. 16° 52′ N.

ARKATOU BASILEON, of the Greeks, is the present Arcot.—See Ara kadu. Arcot. Kurambar

ARKEA and Baitum, rivers in Gwalior territory. The Arkea runs near Neemuch.

ARKO or URKOW. Beng. Curled flowered Calotropis, Calotropis gigantea.

ARKOLA. Kashm. A poisonous tree of Kashmir which, when green, blisters the hand that touches it.

ARLAL-SAMUDER, a town in India, in Long. 77° 22′ E. and Lat. 12° 36′ N.

ARMAK. Hind. Pandanus odoratissimus.

ARMEGON, or Durguraz-patnam, on the Coromandel coast, was an early settlement of the English from which they removed to the present site of the chief city, Madras, in about 1728. It is in Lat. 14° 1′, N. Long. 80° 10′ E. It has a shoal off it, of the same name, within which is a safe roadstead called Blackwood's harbour.—*Horsburgh.*

ARMENIA. The upper Euphrates is nearly in the centre of that great range of territory called by the ancients Armenia, which extended eastward from that river to the Caspian Sea, and again westward over a part of Asia Minor. The former portion was almost universally known by the name of the Greater, and the latter by that of the Less Armenia; but both were sometimes subdivided into First, Second, and Third Armenia: a fourth division was added by Moses Choronensis and others. This last division, being on the eastern side of the Euphrates, constitutes in reality part of Armenia Major; while Armenia Minor is confined to the country westward of the Euphrates and is composed only of the three sub-divisions above alluded to. Armenia Major in the time of its greatest prosperity, extended from 36° 50′ to 48° N. Lat.; and eastward, in one direction, from 38° to about 48° 40′ E. Long. with a surface of nearly 84,756 square miles of diversified country. Strabo makes it 200 schoens long by 100 wide, which would give a much greater superficies. (*Lib. xi. p.* 530.) The general limits of this territory will probably be best understood by considering the Euphrates to be its western boundary from Sumeisat until a few miles south of Erzingan, where the boundary quits the river, and preserves the direction of Tarabuzún, till it meets the mountains southward of Gumish Khanah.—(*Col. Chesney's Euphrates Expedition, p.* 94.) The populations to whom the term Armenian is now applied, call themselves Haik. Their chief occupancies are the Turkish province of Erzerum, and the Russian district of Erivan, and in Erivan the patriarch resides. They are now under the sway of Russia, Persia and Turkey, but they are found in all eastern countries; 37,676 are in European Russia alone, and one important settlement of them is in Venice, that of the Mechitarist monks, on the island of St. Lazarus. In figure, the Armenians have been likened to the Jew, the Turk and the Afghan. They evince great commercial aptitude, and are bankers and merchants. In Armenia, however, they cultivate the soil. Before their conversion they were fire worshippers. Many of them now are Nestorians, some are Romanists. The language of the present day has affinities with the Iron, and Persian, Arabic, Syrian and Turk. General tradition and the formation of language point alike to the mountains of Armenia as the birth-place of the Arab and Canaanitish races, and there is especial native evidence to the same effect as regards Edom, consequently, also, the Phœnicians.—*Latham's Descriptive Ethnology. Col. Chesney's Euphrates Exped. p.* 94. *Bunsen's Egypt, iii.* 431. See India, *p. p.* 309, 314 and 327. Koh. Sassanian kings. Tigris. Afghanistan, p. 312. Jews. Kirman. Sanskrit. Iran.

ARMENIACA VULGARIS. *Lam.*

Prunus Armeniaca. *Linn.*

Bin-kuk .	AR.	Khubani ...	HIND.
Tuffa Armina...	„	Ari	„
Common Apricot ..	ENG.	Barkuk ...	PERS.
Apricot ...	„	Khub-ani ...	„
Zard Alu ...	HIND.	Bakur-khani ...	„
Chulu	„	Mishmish ...	„
Chinaru ...	„	Juldara ..	PUNJ.

A native of Kaghan, China and the West of Asia, but grown in gardens of India. It is found also in the Sutlej valley between Rampur and Sungnam, at an elevation of 7,000 to 13,000, but does not ripen above Shalker (*J. D. Cunningham*). It is, there, a common article of food, and source of wealth. The plantain is last seen below Kotgurh, and the mango near Rampur. The apricot is a staple produce in Kullu, and common article of food, they are small and firm-fleshed, so that they dry well. According to *Dr. O'Shaughnessy*, this is common about villages in the Himalayas, and oil of the finest kind is made by expression from the kernels, which are sold separately in the bazars under the name of Badam kohi, or hill almonds. The oil is clear, of a pale yellow colour, and smells strongly of hydrocyanic acid, of which it contains usually about 4 per cent.—*O'Shaughnessy, pages* 222-23. *Roxb. ii.* 501. *Voigt,* 200. *Veg. King.* 299. *Cleghorn, Punj. Rep. p.* 65, 80.

ARMENO-CHALYBES, of Pliny, occupied the Cushdim territory of the Chaldees. See Chaldea.

ARMLETS, are worn by hindus and mahomedans, by men and women; of gold or silver, ivory, deer-horn and brass, some in the form of massive carved rings, some as lockets; the more expensive, worn by royalty are the bazu-band, literally arm-binder. They have been worn as ornaments, since the most ancient times, like earrings, (*Gen.* XXXV, 4: *Ex.* XXXII, 3, 4; *Hosea* XI. 13: *Judges, viii,* 24) the ενωτια in aures often of gold, like those of the Ishmaelites. But they are often caskets containing, as with the mahomedans, charms, their taviz or like the jangam sect of hindus, the phallic lingam. These charms are often worn round the neck like the golden bulla and leather torum of the Roman youth or as in Prov. vi, 21, and most women have frontlet ornaments such as are alluded to in Deut. vi. 8. See Talsam. Taviz. Phyllactery.

ARMORE, a town in India, in Long. 72° 52′ E. and Lat. 21° 21′ N.

ARMORIAL BEARINGS belong to the east and were little known till the period of the Crusades. The twelve tribes of Israel were distinguished by the animals on their banners, and the sacred writings frequently allude to the "Lion of Judah." The peacock was a favourite armorial emblem of the Rajpoot warrior; it is the bird sacred to their Mars (Kumara), as it was to Juno, his mother, in the west. The feather of the peacock is used to decorate the turban of the Rajpoot and the warrior of the Crusade, adopted it from the hindu through the Saracens. "Le paon a toujours ete l' embleme de la noblesse. Plusieurs chevaliers ornaient leurs casques des plumes de cet oiseau; un grand nombre de familles nobles le portaient dans leur blazon ou sur leur cimier; quelquesuns n'en portaient que la queue.—*See Art. Armoirie, Dict. de l' ancien Regime. Tod's Rajasthan, Vol. I. p.* 137.

ARMOSIA DASYCARPA.

Thitwajee.....BURM.

This tree is found here and there widely scattered in the Swar and other forests north of Toungboo. The wood is red, and equivalent to mahogany.—*McClelland.*

ARMOUR. In South-eastern Asia samples of the armour and arms which have been in use, in all ages and in all countries, can every day be seen, and at the exhibition of 1851, there was a display of many actually worn in India at the present day; such as chain and scale armour, both for man and horse, helmets and shields, spears, battle-axes, bows and arrows, with daggers in every variety. There was a sword formed of two blades, and another in which pearls were let into the centre of its blade. Among the daggers was one with daggers, one within another all of hard steel, with the line of junction so beautifully welded as to be hardly perceptible even with a magnifier, also a dagger, most nicely brought into juxa-position, but which on striking separated into five blades. The twisting of gun-barrels and the damasks of their blades of steel have been imitated in India and beautiful specimens were sent, chiefly by the native princes of the north-west of India, from Putteala to Sind, as well as from the central government of Hyderabad. Near Hyderabad in the Dekkan, valuable sword blades are made at Kona Samudram: and at the Langar festival of the Nabob, on which occasion all the troops file past, men with bows and arrows in quivers, with javelins, lances, pistols, muskets, ancient forms of weapons and new, may all be seen, with quilted doublets, chain and steel armour on them, with steel and chain armour and gold and silver trappings on horse and camel and elephant. No Indian prince or chief is without his *silleh khanah* or *armoury*, and a Rajput prince can pass hours in viewing and arranging his arms. Every favorite weapon, whether sword, matchlock, spear, dagger, or bow, has a distinctive epithet. The *sirohi*, or slightly-curved blade, is formed like that of the Damascus, and throughout Rajpootana, is the greatest favorite of all the variety of sabres. The long cut-and-thrust, like the *Andrea Ferrara*, is not uncommon; nor the *Khanda*, or double edged sword. The matchlocks both of Lahore and Rajputanah are often highly polished and inlaid with mother-of-pearl and gold: those of Boondi are the best. For the shield, the rhinoceros hide offers the best resistance, and is often ornamented with animals, beautifully painted, and enamelled in gold and silver. The bow is of buffalo-horn, and the arrows of reed, and barbed in a variety of fashions, as the crescent, the trident, the snake's tongue, and other fanciful forms. The custom of engraving incantations or verses of the koran on weapon is Eastern, thence adopted by the mahomedan, as well as the use of phylacteries. The name of the goddess guarding the Rajput tribe is often inscribed, and an entire copy of the *Bhagvat Gita* has been taken from the turban of a Rajpoot killed in action: in like manner the mahomedans place therein the *koran*. The devotions of the Rajpoot are still paid to his arms, as to his horse. He swears 'by the steel,' and prostrates himself before his defensive buckler, his lance, his sword, or his dagger. The worship of the sword (asi) prevailed amongst the Scythic Getæ, and is described exactly by Herodotus. To Dacia and Thrace it was carried by Getic colonies from the Jaxartes, and fostered by these lovers of liberty when their hordes overran Europe The worship of the sword in the Acropolis of Athens by the Getic Atila, with all the accompaniments of pomp and place, forms an admirable episode in the history of the decline and fall of Rome; and had Gibbon witnessed the worship of the double-edged sword (khanda) by the price of Mewar and all his chivalry, he might have further embellished his animated account of the adoration of the scymitar, the symbol of Mars.—*Tod's Rajasthan, Vol. i. p.* 616, *ii.* 638. *Royle. Arts of India*, 469. *Exh. of* 1851.

ARMY. The Army of India, up till the year 1858, when the queen of Great Britain assumed, from the East India Company, direct control of that country, was composed of European Cavalry principally from the Army of Britain; Native Cavalry recruited amongst the people of India, and officered and drilled like European Regiments by natives of Great Britain, but with fewer officers; and of other Regiments of native Cavalry, also raised amongst the natives of India, but with still fewer European officers, generally only a Commandant and Adjutant. The last were usually styled Irregular Cavalry, they were contractors, supplying their own horses, horse furniture and horse food, and were classed as sillahdars and bargirs, according as they were owners of horses or servants, for certain sillahdars had the privilege of supplying two or more horses and horsemen, styled "assami." The Artillery, both horse and foot, were wholly servants of the East India Company, the whole of the officers and the soldiers of the European Artillery being natives of England, but the native Artillery, horse and foot, called the Kali or black troop, and Golandaz, were recruited from amongst the same classes of natives as supplied the native cavalry and native infantry. The Infantry, similarly to the cavalry, were in part the servants of the Company, and in part composed of British Regiments taking a tour of duty in India : in part, also, they were native regiments of foot, regular and irregular, the last generally local corps, such as the Goorkha battalions, the Nair Brigade, and serving in their own locality. These troops were arranged in the three commands of Bengal, Madras and Bombay, and their numbers in times of peace and war, varied between 250,000 and 350,000 armed men, ready for war. In the Bengal Native Army, there were mahomedans, but the bulk of the soldiery were hindus, many of them of the brahminical and chetrya castes, brave, buoyant and jaunty, but proud, vain and conceited. The Madras Native Cavalry were almost entirely mahomedans with a few Mahrattas, from near Arcot ; their Native Infantry was about 2-5ths mahomedans and 3-5ths hindus, chiefly Sudras with a mere sprinkling of higher or lower castes, and Christians : while the Bombay Army was recruited partly in Northern India from the same men as the Bengal Army, partly from the Mahrattas of Maharashtra and had a sprinkling of Jews, low caste men and Christians. The duties of the Bengal and Bombay Native Armies, were chiefly amongst people speaking their own tongues, but the Madras soldier, took the entire duties, of Borneo, Singapore, Malacca, Penang, the Andamans; Moulmein, Rangoon, Prome, Theyet Myo and Tonghoo, and often held Aden, Khyouk Phyo, Canton, and Hongkong The Engineers were officered by natives of England, but had under them, a large body of native sappers and miners who, in Madras, were Tamul Sudras, Christians and Pariahs. In 1857, however, the regular Native Army of Bengal, composed of hindoos, and mahomedans, recruited mostly in the North West Provinces, rebelled and revolted from its allegiance to the British, and it took all 1858, 1859, and much of 1860 to subdue the mutineers, and restore order, for many chiefs and races rose in succession and had to be put down by arms. A few regiments of the Bombay Presidency also failed, but one of these, the 21st B. N. Infantry had formed part of the regiment of the Peshwah, Baji Row, commanded by Captain Pott, and had come over to the Company during the middle of the battle that ensued on the attack on the Residency at Poonah, and the soldiery of that corps had continued, as in the Peshwah's times, to be recruited in Northern India. From 1858, the entire European soldiery of India, became formed from British Corps, amongst whom those previously belonging to the East India Company were enrolled, and great reductions were then made amongst the regiments of native infantry, and their organization changed from the regular to an irregular system, *i. e.*, with fewer European Officers ; by degrees nearly all the native artillery, were eliminated and Europeans alone left in this arm of the service. These changes were carried out during a period of several years, and as the ultimate effect is not yet perceived, it may be well to indicate in what respects the present constitution of the Native Army differs from that of the one that passed from the scene. All the reasons that led the Government to give so decided a preference to the "Irregular" system are not known, but it is stated that the principal was the noble and loyal behaviour of the Goorka and Punjab Irregular Regiments. These regiments, however, had no sympathy or feelings in common with the "revolters," who were men of other countries and religions to themselves, and other Irregular Regiments, composed of men of the same caste and country as the rebellious sepoys, such as the Gwalior, Kotah and other contingents, did mutiny, and join with the men of the Regular Army in their attempts to throw off the British rule. Again, it may be questioned whether, if the Seik and Goorka Regiments had been officered on the Regular system, they would not have been even more efficient than they proved themselves to be. Difference of caste only was not sufficient to deter the hindoos from joining in revolt with the mahomedans of the same regiment who were in daily communication with each other. Indeed, the mahomedans from the North West frontier look upon the mahomedans of the Central Provinces as "hindooised mahomedans." In 1858, the Punjab Government, acting on the principle of *divide et impera* ordered that certain regiments about to be raised in that province, should be organised "in companies" of different castes, Seiks, Punjabees, Dogras, Pathans, and others. The number of officers now attached to Irregular Regiments is, however, still very nearly as great as the average number of officers that were usually present with the old Regular Regiments of the Bengal Army.

ARODANA ; this name, as lord of India, is mentioned in an inscription in the Karli Caves. It is in Pali and about A. D. 176 or according to Dr. Wilson B. D. 543.

ARNIYA, a dialect of the Dardu language, spoken by the Dards in Yasan and Chitral. See Dards.

ARNODE, a town in the N. W. of peninsular India, in Long. 74° 50′ E. and Lat. 23° 54′ N.

ARNOOTMUNGALUM, a town in the south of the peninsula of India in Long. 78° 58′ E. and Lat. 9° 45′ N.

ARNOTTO.

Lutkun ?	BEN. HIN.	Oilean	GER.
Kisree ?	BOM.	Gawpurgee	HIND.
Kuppa Manhala ?	CAN.	Orellana	IT. POR.
Orleaan also Rokoe,	DUT	Terra Orellana	„ „
Annatto	ENG.	Kurungoo-munga ?	MAL.
Annotto	„	Kaha-Gaha	SING.
Rocou	FR.	Kuragu-manjal ?	TAM.
Roucou	FR. of AM.	Jafra ? ?	TEL.

The plant-producing Arnotto, called also anatto, and anotta, the *Bixa orellana*, is now naturalised in India, Burmah and the Eastern Archipelago, but its native country is Cayenne, from which it has spread into the hottest parts of South America, and the West Indies, where it is extensively cultivated on the banks of rivers, and gives its name to the Bay of Annatto, on the North of Jamaica. It is likewise grown at the Hawaiian Islands, Tongataboo, Rio Janeiro, Peru, Zanzibar. The Arnotto is a thick extract
obtained, it is said, from the seeds as well as
there the soft sticky rind of the plant, and it is
India at ith in commerce of two sorts. Flag or
armour, rnotto, is furnished almost wholly by
shields, sp from which it is brought to England.
with dagger kind called Roll Arnotto, is a
sword formed more concentrated extract In
which pearls rs obtain a red dye from its fruit.
blade. Among rs obtain the red colour called
daggers, one with liquid sold under the name of
with the line o solution of Arnotto in potassa
welded as to be A solution is also made in
with a magnifier,. in varnishing and lacquering :
brought into j used for giving more or less of
striking separast to the simple yellows ; as an in-
ing of gu
gredient in varnishes. The consumption of Arnotto in great Britain has greatly increased of late years. Formerly, it amounted to but little more than 50,000lbs. in later years, the imports have been as follows :—

	Tons.	Retained Home for consumption.
1847	138	125
8	119	85
9	27	17
1850	72	...

In the Madras Exhibition of 1855, where many good specimens of fruits and seeds were exhibited, a specimen of cake Arnotto, of a thick pasty consistence, prepared by macerating the seeds gave an orange colouring matter. It is used as an ingredient, for tinging cheese and butter, to which it imparts various shades of colour from yellow to ren and it is also mixed with chocolate, oils, spirits and varnishes as a colouring material. Arnotto dissolves in milk and is diffused in the milk previous to its manufacture into cheese and butter. The Spaniards color their soups, deeming it wholesome and stomachic. Arnotto is soluble in alkalies, by which means it is fixed to silk or wool. The colour obtained from fresh pods of the plant, is so superior to that of either the flag or cake Arnotto as to lead to the conclusion that the method of preparing these, which is by a great degree of heat and fermentation, is injurious to the colour.—*Mason. Simmonds M. E. Jur. Reports. Tomlinson. Birdwood's Bombay Products. Poole's Statistics of Commerce.*

blades AROMATIC BARKS, roots and seeds, spices and condiments are found in every bazar
beautiouth Eastern Asia, are found in every bazar, for domestic use, and some of them are largely
natiported. The following are the better known :—
Putt

Botanical Name.	English.	Part used.
Allium sativum	...Garlic	...The bulb.
Archangelica officinalis	...Angelica...	„ root.
Cassyta filiformis	...Capsicum, Bird pepper, large bell pepper, shrubby. ...	...The plant.
Cicca disticha	...Long leaved Cicca	Fruit.
Chavica Roxburghii	.. Long pepper... ...	...Dry unripe fruit.
Crocus sativus	...Saffron Crocus.	The rhizome.
Curcuma longa	...Turmeric	...The leaf.
Cinnamomum iners	...Cinnamon	The bark.
Citrus bergamia	...Bergamot Citron ...	...The fruit and rind.
Carum carui	...Caraway	The fruit.
Coriandrum sativum	...Coriander	... „ „
Cuminum cyminum	.. Cumin	„ „
Capsicum annuum	...Common Capsicum ...	... „ „
„ baccatum	...Bird pepper	„ „
„ grossum	...Large Capsicum, Bell pepper	... „ „

Botanical Name.	English.	Part used.
Capsicum frutescens	Shrubby Capsicum, Guinea pepper.	The fruit.
„ minimum		„ „
„ nepalensis	Nopal chillies	„ „
Fœniculum panmorium	Indian fennel seed	„ „
Garcinia purpurea		„ rind.
Garuga pinnata		Ripe fruit.
Mangifera Indica	Mango	Unripe fruit, fresh and preserved
Mentha piperita	Peppermint	Leaves.
„ pulegium	Pennyroyal.	„
„ sativa	Tall red mint.	„
„ viridis	Spear-mint.	„
Moringa pterygosperma	Horse radish tree	The root bark.
Myristica fragrans	Mace and Nutmeg	The false aril and nucleus.
Narthex assafœtida	Asafœtida	Gum resin.
Nigella sativa	Small fennel flower	The seed.
Ocymum basilicum	Sweet Basil.	
Pimpinella anisum	Anise	„ „
Ptychotis ajowan	Ajwain	„ fruit.
Phyllanthus emblica	Emblic Myrobalan	„ „
Piper nigrum	Black pepper	Unhusked berry.
„ „	White „	Husked „
Rosmarinus officinalis	Rosemary	The plant.
Salvia officinalis	Sage	„ „
„ sclarea	Clary	„ „
Satureja hortensis	Summer savory....	
„ montana	Winter „	
Sinapis *sps.*	Mustards	The seeds.
Spondias mangifera		„ unripe fruit.
Trigonella fœnum-græcum	Fenugreek	„ leaf.
Tamarindus Indica	Tamarind	Pulp.
Thymus vulgaris	Thyme	The leaves.
„ citriodorus	Lemon thyme.	
Vanilla planifolia	Vanilla	„ fruit.
Vitex bicolor		„ „
Zingiber officinalis	Ginger	„ rhizome.

Aromatic barks of *Laurineae*, the *Oulit-lawang*, *Massoy*, *Sintoc*, are articles of commerce in the Indian Archipelago, and are but imperfectly known in Europe. The traveller should embrace the opportunity, when it occurs, of seeing the bark collected, and of obtaining authentic specimens of it, and of the tree yielding it. There are several kinds of aromatic roots found in Malabar, the products of various species of Curcuma, Zingiber, Costus, Kempfœria, &c., *M. C. C.*

AROODA. TAM. Rue.

AROON. BEN. Rubia munjistha.

AROONA CHITRACA. SANS. Plumbago rosea.

AROOSHA OR CHITTAGONG FIBRE, *Callicarpa cana*, is prepared in Chittagong from the inner bark of the plant, Callicarpa cana is one of the Verbenaceæ.—*Royle.*

ARNA. TURK. A natural bed of a river.

ARNA. SANS. A wild male buffalo. ARNI, female. Also a forest dried cowdung.

ARNAKUNDA OR VARANGAL, a town in ancient Telingana, probably Warangal, about 70 miles from Hyderabad.

ARNA MANOPONDU. TAM. Sida acuta. BURM.

ARNATTA TREE ENG. Bixa orellana. See Anotto; Dyes.

ARNEE. Three towns are so called in India, one in Long. 77° 58′ E. and Lat. 20° 8′ N., another in Long. 79°21′E., and L.9°45′N.; and the third in Long. 80° 9′ E. Lat. 13° 9′ N. This last is situated in the collectorate of Chingleput, of the Madras Presidency, and is still celebrated for the muslins it produces, though the first kinds are now only manufactured to order. The Arnee colored muslins for ladies' dresses exhibited at the Madras Exhibition of 1855 were considered deserving of commendation, and were of a quality very far superior to that which is generally made for sale. A piece of Arnee muslin, priced Rupees 122½, attracted much attention and praise. The fineness and delicacy of its texture afforded clear proofs of what the Native workman can achieve under adequate inducement.—*M. E. Jur. Rep.*

ARNEE SULLAH. See Cloths.

ARNELLI PULLUM. TAM. Cicca disticha. அரிநெல்லி.

ARONE, a town in India in Long. 77° 30′ E. and Lat. 24° 26′ N.

ARORE, OR ALORE, was the capital of Sind in remote antiquity: a bridge over the stream which branched from the Indus, near Dura, is almost the sole vestige of the capital of the Sogdi of Alexander. On its site the shepherds of the desert have established an extensive hamlet; it is placed on a ridge of siliceous rock, seven miles east of the insular Bukkur and free from the inundations of the Indus. The Soda tribe, a powerful branch of the Pramara race, has ruled in these countries from remote antiquity, and to a very late period they were lords of Oomrasoomra in which division was Arore.—(*Tod, Vol. I. p.* 42.) According to Burton, however, its site is 4 miles east of the Indus at Sukker and Rori. Sehl and his capital were known to Abul Fazil, though he was ignorant of its position, which he transferred to Debeil, or Dewul, the modern Tatta. This indefatigable historian thus describes it: "In ancient times there lived a raja named Sehris (Sehl), whose capital was Alore, and his dominions extended north to Cashmere and south to the ocean." Sehl, or Sehr, became a titular appellation of the country, its princes, and its inhabitants, the Sehrai. Alore appears to have been the capital of the kingdom of Sigertis, conquered by Menander of Bactria. Ibn Haukul, the Arabian geographer, mentions it; but a superfluous point in writing has changed Arore into Azore, or Azour, as translated by Sir W. Ouseley. D'Anville mentions it; but, in ignorance of its position, quoting Abulfeda, says, en grandeur "Azour est presque comparable, a Mooltan."—*Tod's Rajasthan, Vol. I. p.* 42, *Scinde, Vol. I, p.* 166.

ARPALLY, a town in India in Long. 74° 52′ E. and Lat. 17° 12′ N.

AROSIS, a river mentioned by Nearchus, supposed to be the Kheirabad river, the Ab-i-Shirin of Timur's expedition. See Hindyan.

AROSTIGMA BENGALENSE, Miguel, Syn. of Ficus Bengalensis.—*Linn.*

AROSTIGMA RELIGIOSUM, Miguel, Syn. of Ficus religiosa.—*Linn.*

ARPHAKHSAD or ARRAPAKHITIS, i. e., the primeval land of the *Kasdim* (Chaldees), the frontier mountains of Armenia towards Assyria. The Arphaxad of scripture is the district of Arrapakhitis, and was the starting point of the settlement and reminiscences of the race of Abraham. It is one of the south-western slopes of the mountain range, by which the primeval seat of the human race was surrounded, and on which the inhabitants of the northern plains took refuge in their flight. It is, however, to that half of it, to the westward of their original residence, that the Semitic races as a body resorted, and these settlers, who became so prominent a feature in history, successfully advanced westward from Arphaxad the starting post of the Abrahamitic reminiscences. According to Chevalier Bunsen, Arphaxad was the son of Shem, and lived 215 years before Abraham's immigration.—*Chevalier Bunsen, iii, p.* 361. *Chesney's Euphrates.* See Heber. Lud or Ludi.

ARPPANA, in Ceylon Buddhism, the superior form of Samadhi restraint.

ARPESI. Amongst the Tamuls, the 7th month of the Solar year, answering to the Hindu month Cartiga during which the sun is in the sign Tula.—*E. Warren.* Kala Sanhita.

ARPOOKOTAY, a town in India in Long. 78° 10′ E. and Lat. 9° 35′ N.

ARRA. LHOPA. Arrack prepared from Chong.

ARRACK. ENG.

Ar'k	...	AR.	Arak	...	MALAY.
Arak	...	„	Arrack Apee		„
Arak	...	DUT.	Ar'k	...	PERS.
Rak	...	„	Arak	...	[illegible]
Arrack	...	ENG.	Araca	..	PORT.
Arac	...	FR.	Arrak	...	RAKH.
Rack	...	GER.	Arak	...	RUS.
Arrack	...	„	Sura	...	SANS.
Arrak	...	HIND	Arak	..	SP.
Ar'k	...	„	Saraiam	...	TAM.
Araco	...	IT.	Sarai	...	TEL.

Like the word alcohol, in Europe, Arrack is a term applied, in most parts of India, and the Indian Islands, to designate every sort of spirituous liquor, however obtained. The use of intoxicating fluids and drugs is considered by mahomedans to be forbidden by the Koran, but its words admit of a different interpretation. In Chapter II. Mahomed tells his followers that people "will ask thee concerning wine, and lots: Answer, in both there is great sin, and also something of use unto men, but their sinfulness is greater than their use. In Chapter XVI, entitled the Bee, Mahomed, giving proofs of the resurrection, says, and of the fruit of palm trees, and of grapes, ye obtain an inebriating liquor, and also good nourishment." Indeed, the quantities of these spirits used in all eastern countries is very great, and there is much open drunkenness. But the bulk of the Asiatic races, Arab, Persian, Hindi, Burman, Malay, Siamese, Buddhists, Christians, Mahomedans, and Hindus are spirit abstinents. This is equalized by the great quantities of food articles which they consume, a grown man eating daily two, three and four pounds of solid farinaceous food. Recently a hospital physician, as an argument against teetotallers says, he is as active as most men, driving daily 10 miles, walking during three hours, and working very hard for about six hours daily at head work. His daily diet, irrespective of fermented liquors, consists of two eggs, three ounces of milk, a third of a pound of cooked meat, one potato the size of an egg, two ounces of bread, a trifling amount of butter and sugar, and an ounce of cheese, in all about 15 ounces per day, and he asks whether any teetotaller can do the same, taking tea, coffee, and water ad libitum: only other diet is light wine. Although hindus and mahomedans and budhists are by their religions or by social usage prohibited the use of alcoholic fluids they do use them largely, either stealthily or openly, the fermented palm wines, or the distilled arracks or spirits being in great demand. In ancient times the conquering Aryans seem to have largely used distilled spirits, because the excitement described from drinking their soma juice could not have resulted from another source. The advantages of a moderate use of alcohol are thus well summarized by the Saturday Review, in noticing Dr. Barclay's pamphlet on the Temperance question,—"When the teetotallers confess that out of five hundred thousand persons who have taken the pledge in America, three hundred and fifty thousand have broken it, they prove what science had previously asserted--that a moderate use of alco hol is proper for man; and the experience of the hydropathic establishments proves an enormous increase in the use of food. If we only drink water, our consumption of farinaceous and animal food must be very largely extended. The effect of alcohol is to arrest the destruction of the tissues and to utilise the constituents of life; and therefore, under the present conditions of modern life, where the nervous system is liable to so much waste, alcoholic substances, as the most portable form of accessory diet, are more than ever necessary. If, as is the case in infancy, the only purpose of life were to live, the complimentary diets of animal, farinaceous, and leguminous food would be sufficient to sustain life; but so soon as man begins to work and think, alcohol, as preventing and arresting the destruction of tissue, is the cheapest food. If a man have a shilling to spend on food, he will do a better day's work on nine penny worth of bread and meat and three penny worth of beer, than on six penny worth of bread, six penny worth of meat, and sufficiency of water. Another important fact is, that total abstinence from stimulating drink actually predisposes to certain diseases. Arrack to a small extent is imported into England in leagers or large casks from Ceylon and Java, holding 150 to 156 gallons, and sells at 1s. 6*d.* to 2s. the gallon exclusive of duty. Alcoholic liquor in Europe, when dis[illegible]om grape wine, is known as brandy; when from a malt liquor, it is called a corn spirit, when from molasses, as in the West Indies and America, it is a rum. But from Turkey on the west, through all the countries on the south and east, Arrack, from the Arabic, عرق is the term applied to all ardent spirits from whatever source obtained, whether from the Sorghum, palms or cane, from flowers, or fruits or rice, or barks or mixtures of all these. Alcoholic liquors are produced from the black ant in Sweden: from cow's milk or mare's milk in Tartary, from sheeps milk in Afghanistan: from lambs flesh in China, and formerly, in England from honey, where mead was the only strong drink known for centuries. Ardent spirits of various kinds are said to be prepared by the hakims of India by distillation from various gramineæ as also from rose buds, jasmine flowers, orange peel and Indian fennel seed. The purest native spirit that we have met with in India is the cane Arrack manufactured in the valley of Kowlass, near Beder. Along all the sea- bord of eastern countries, where the various palms most abound, the toddies,--the sap or palm wines of the cocoanut, Cocos nucifera: of the date palm, Phœnix dactilifera: the Palmyra, Borassus flabelliformis; the Gomuti, or Arenga saccharifera, or the Caryota urens, are the materials chiefly employed for making arrack. After this juice is fermented it is distilled & rectified, and it usually yields about an eighth part of pure spirit. The three principal kinds known in commerce however are the arrack of Batavia, Goa and Colombo. That from Batavia is the strongest, and is distilled from a mixture of 62 parts of molasses, 3 of toddy, or palm wine, and 35 of rice. The last of these Crawfurd states to be boiled; and, after cooling, a quantity of yeast is added and the whole pressed into baskets, in which condition it is placed over tubs, and left for eight days, during which time a liquor flows abundantly from the rice. This liquor is distilled and then mixed with the molasses and toddy, which is all left to ferment for a week in large vats; after the fermentation is over, the Arrack is distilled one, or two, or three times, according to the strength required. That made at Java is chiefly for home consumption, but is also exported to China or India, very little is brought to China, and altogether in Junks. Another statement however describes the Batavia or Java Arrack as obtained by distillation from molasses and rice, with only a small admixture of toddy. The Arrack produced at Goa, is sweeter than that which comes from Java, and being made entirely from toddy, by repeated distillation, it is preferred by the Hindus to the Batavian, on that account, though it is an inferior spirit, containing only one-seventh of pure alcohol.—*Morris.* Arrack in one part of Ceylon, is distilled from the fermented palm wine of the cocoanut palm, and is prepared in certain districts of the Southern province of the Island, under licenses from the government, but for many years past the only exports have been to the Indian Presidencies and some of the Eastern Islands. Similar to the Indian practice, in Ceylon, the right of vending Arrack in shops and bazars, is rented out and realizes about £55,000: the shipments of Arrack have fallen off, from 1000 pipes in 1845, to 520, in 1850. (*John Capper in Asiatic Soc. Journ. Vol. XVI. London* 1856, *p.* 274.) It should be remembered, however, that, in Ceylon – three palms yield Palm sugar, (*Cocos nucifera*), the Palmyra palm (*Borassus flabelliformis*), and the kittal or jaggerry palms (Caryota urens.) From each of these palms the juice of the flowering stalk is collected under the name of toddy, and from it sugar, known in the East as jaggery, is regularly prepared; but it is from the palmyra palm that nearly all the palm sugar is obtained, and it is from the saccharine matter of the cocoaunt palm that Arrack is made in Ceylon. This palm becomes productive there in about six or seven years: In collecting toddy, the spathe is stripped off the spadix before it has fully expended; [illegible] spadices are afterwards beaten between pieces [illegible] wood, and slices are cut with a sharp [illegible] as to allow the juice to flow out. [illegible] continues to yield juice for about [illegible] nearly the average rate of half a [illegible] hours. When it is intended to [illegible] from the toddy, great care is [illegible] pieces of wood in the small [illegible] be attached to the flowers, and [illegible] interior with charcoal, to remove [illegible] likely to promote fermentation: [illegible] additional precaution chips of the [illegible] the Vateria Iudica are placed in each, in [illegible] to retard fermentation. The jaggery of [illegible] central province of Ceylon, is entirely made [illegible] the Caryota urens juice, which yields a much larger quantity of sugar than does that of the other two palms, and of a quality much more highly prized by the natives. When toddy is collected for the purpose of making Arrack, no care is taken to prevent fermentation, and as it is brought from the trees it is poured into wooden vats in which that process rapidly advances. If attention be not paid to the fermentation, acetic acid is formed, and this often causes the Arrack to take up lead from any portion of that metal with which it may be brought into contact. (*Dr. Smith, in Edinburgh New Phil. Journal, Vol. IV, No. I, July* 1856, *p.* 175.) In most parts of the East Indies, a very intoxicating spirit is prepared from the large, Mahwa flower, Bassia latifolia, the fleshy petals of which contain sugar. This is largely distilled in Bhandoop, about 20 miles from Bombay. (*Faulkner.*) And the Mahwa with the inner part of the white keekur tree, Vachelia farnesiana, or Acacia leucophlœa, form ingredients in the manufacture of the spirit sold under the name of "Arrack" in every bazar. (*Faulkner, O'Shaughnessy.*) When prepared from jaggery and the bark of the Acacia leucophlœa, which is rich in tannin, the tannin combines with the albuminous and nitrogenous substances in the jaggery and decomposes them. In most of the native stills,—composed of clay-pots or chatties, with bamboo pipes, ten per cent of the sugar is wasted by the loss of its resulting alcohol. Arrack in Madras is made from the Velvelam Puttai Acacia leucophlœa bark and Palmyra jaggery; the quantity required for one still, being 1 viss of the bark and 13½ of the sugar, the produce being 4½ gallons. Its cost of manufacture to the Government is 5 annas a gallon, and it is sold to the retail dealers of that city and within the boundary of ten miles at Rs. 3 per gallon, but to all beyond the limits for Rs. 1-8 per gallon. The jaggery is usually imported from Tinnevelly and from the Northern Circars. Pariah Arrack is a term employed by Europeans in India to designate a highly pernicious [illegible], said to be adulterated with the [illegible], datura, cannabis sativa and other intoxicating drugs. In the four years 1852-53 to 1855-56, inclusive, Madras

Exported.		Imported.	
Quantity.	Value.	Quantity.	Value.
Gals.	Rs.	Gals.	Rs.
57,567	71,572	2,26,177	2,80,995

The imports principally from Ceylon and Bombay and the exports to Cutch, Pegu and Ceylon. In Siam, Arrack is manufactured by the Chinese, and consumed furtively by the Siamese, though sobriety is certainly one of the virtues of the Siamese national character. In Penang, ardent spirits are distilled from sugar-cane, and used by the hindoos of the lower order. Backerkatee is the spirit distilled in which cardamom is put and weakened with water, and called 'Illachee;' 'Cumlaha' with orange peel; 'Joboabee' and 'Pattaha' are adulterated with tobacco leaf, and 'Attaree' is scented with utter. '*Aunish*' *is the only* pure spirit distilled from aniseed. In Cuttack a spirit distilled from rice, is the only alcoholic liquor used by the natives of the province, and that only by those of the lower classes. It is the same to the use of which the wild tribes of Orissa, the Kond, Sahar, and Col are so addicted. It is unpalatable and nauseous. It is made 25 below London proof, 1 maund of rice making 8 gallons. A spirit is distilled in the Sumbulpore district, chiefly from the flower of the *Bassia latifolia*, locally called Mahool. This tree is met with throughout the forest jungles of that province and its flower is a favourite food of wild animals, especially the bear. In Malda, a spirit is prepared from the mango, the taste is not unlike whisky, and far superior to any thing of the sort sold in Indian bazaars for every purpose to which the latter is applied. Its specific gravity is about 903·5, which at a temperature of 80° F. gives about 60 per cent. of alcohol to the volume of spirit. Throughout the Hyderabad territory, generally, the spirit distillation is from the mahwa flower, the flower of the Bassia latifolia, along with the bark of the Acacia leucophlœa or acacia rugata and produces a coarse nauseous liquor. Four kinds are made in the Hyderabad city, viz :—

The *Rassi spirit*, from Argal fruit alone.

The *Black sugar spirits*, from black sugar alone.

Strong spirits, made by twice distilling Rassi spirit.

Sugar spirit, from black sugar, anise (star ?) sandal shavings and rose flowers.

The ingredients of other spirits made in the Hyderabad provinces are Gul-Mahwa (Bassia latifolia flowers) and the bark of Acacia leucophlœa. In the cantonment of Secunderabad, there are several ardent spirits and liqueurs made.

Mahwa spirit. One pullah of Mahwa flowers is first wetted with two seers of chall (bark of Acacia leucophlœa) and then distilled. The Do-bara arrack is a second distillation of the above and the Battavia arrack is a third distillation of it.

Jaggery liquor. One pullah of Jaggery is wetted with 4 seers of bark and then distilled.

In Misree liquor, one pullah of jaggery liquor is distilled with 4 seers coriander seeds, 3 seers dry rose flower, ¼ seer cachoora (Curcuma zerumbet,) ¼ seer nagen mothah (Cyperus rotundus), ⅛ seer cardamomum, ⅛ seer aku putree (Cassia leaves, cinnamomum iners,) ¼ seer Chandan (Sandal wood), ¼ seer Cushbalah (Andropogon muricatum,) 1-16th seer Cloves, 3-16th seer Somph (Pimpinella anisum,) 2 seers Milk, 3 seers Buttasah (sweetmeat.)

In the Masalah liquor, 1 pullah of jaggery liquor is distilled with the above ingredients with the exception of 3 seers of Buttasah.

Wood Apple liquor, 1 pullah of jaggery liquor, is distilled with 6 seers of Wood Apple.

Mango liquor, 1 pullah of jaggery liquor, is distilled with 6 seers of Mango.

Sibara liquor, 1 pullah of jaggery liquor, 3rd distillation of jaggery liquor.

In India, the right to distill and sell Arrack is sold by Government annually to the highest bidder, It forms in all eastern countries an item of the Abkari. In British India, the revenue from the exise, Sayer or frontier dues, Abkaree and forest, amounted in 1865, to Rs. 2,575,793.—*Ainslie's Materia Medico, pp* 140-263. *Pooles Statistics of Commerce.* See Cocoanut Palm.

ARRAH, a town in India, in Long. 84° 40′ E. and Lat. 25° 35′ N.

ARRAKAN and Tenasserim came into British possession in 1826. Arrakan, with an area of 18630 square miles had 100,000 of an indigenous population. In 1835, the number was 211,536 ; in 1845, 309,608 and in 1855, 366,310. It is now a province of British Burmah. See Arakan.

ARRAN, the home of Zoroaster, mentioned in the Zend Avesta.

ARRANTANGY, a town in Southern India in Long. 79° 6′ E. and Lat. 10° 11′ N.

ARRARA, a town in Manbhoom.

ARREGAN, called also Argan and Arejan, is a ruined town, half-way between Behbehan and the river Kurdistan.

ARREL, a town in India in Long. 79° 40′ E. and Lat. 28° 7′ N.

ARREMUTI MARAM. TAM. Pentaptera coriacea.

ARRIA, a town in India in Long. 87° 34′ E. and Lat. 26° 0′ N.

ARRIALOOR, a town in India, in Long. 79° 10′ E. and Lat. 11° 10′ N.

ARRIAN lived in the times of the emperors Adrian, Antoninus, Pius and Marcus Aurelius. He was a native of [illegible]media in Bithynia, where he studied, [illegible] was born about the end of the first century of the christian era. He was one of the most eminent disciples of the famous Epictetus, graduated iuto a priest in the temples of Ceres and Proserpine and distinguished himself as a historian and in philosophy. His account of the expedition of Alexander the Great, is based on the lost works of Aristobulus and Ptolemy, the son of Lagus, both of whom accompanied the king, during the expedition. He also wrote a treatise on India, in the Ionic dialect, and a periplus of the Black Sea : descriptions of the coasts of the Sea of Asov and of the Red Sea, are also ascribed to him, but these are supposed to be of a later date. Perhaps, there has been more than one of this name, and the Arrian, whom Colonel Tod, may be correct in mentioning as the author of the Periplus of the Erythræan Sea, and a Commercial Agent at Baroach, living in the second century may be one of them. He says that Arrian the author of the Periplus, resided at Baroach, or, as he called it, Barugaza, as a Commercial Agent, in the second century of the christian era ; Baroach was then within the Balhara Sovereignty.—*Encyc. Brit. Vol. iii. 8th Edition*, 1853. *Tod's Travels, p.* 145. See Kalian : Kasr : Khetri : Khuzistan : Megasthenes.

ARROA ISLANDS, from near the parallel of 2° 48′ to 2° 56′ N. and in Long. 100° 38′

E. consist of several small islands and rocks lying mid-way between the Sumatra shore and the extensive banks called the North Sands. They are known as the Round, the Long or Great, and the Western Arroa.—*Horsburg.* See Sumatra Coast.

ARROD, a town in India, in Long. 76° 4′ E. and Lat. 27° 19′ N.

ARROE or ARRU ISLANDS, extend, from Lat. 7° 0′ to Lat. 5° 52′ S. and in Long. 133° 56′ E, for upwards of 100 miles N. and S. and lie between the Timor Laut group and the S. W. Coast of New Guinea. They are a closely packed group, distant about sixty miles from the south-west coast of New Guinea, and between forty and fifty miles in breadth. On the eastern side of the group are found banks of sand and mud, stretching far out to sea, which are only covered to the depth of a few feet at low tides. The trepang or sea-slug, which, when cured, is an article of great consumption in China, where it is much used as a delicacy for the table, exists in great abundance on these banks, which also furnish pearl-oysters of two varieties, namely, the large oyster, whose shell is the mother-o'-pearl shell of commerce, and the smaller variety in which the seed-pearls are found. Some of the more eastern islands contain limestone caverns, within which the small swallow constructs the edible bi[illegible] nests of commerce, also an article in great [illegible]and for the markets of China, where it is said to be worth its weight in silver. These circumstances, coupled with the industrious habits and friendly disposition of the islanders, have led to the group becoming a great resort for traders from the western parts of the Archipelago, including natives of Java and Celebes, Chinese, and even Europeans, who bring large quantities of manufactured goods and other articles suited to the tastes of the inhabitants. The latter have consequently become the most wealthy and prosperous of all the native tribes of the neighbouring seas. The Arru islanders bear a strong personal resemblance to the aborigines of Port Essington; indeed on several occasions in which natives from the neighbourhood of the late settlement visited the islands in European vessels, they were considered by the Arruans as belonging to some remote part of their own group. But the Arruans also possess so many characteristics in common with the *Outanatas* of the opposite coast of New Guinea, that it would be necessary to include them in a general account of the Papuans. One of their most singular peculiarities consists in the value which they attach to elephants tusks, brass gongs, and huge porcelain dishes. An odd custom, and one that is probably unique in the world, consists in the destruction of a man's goods on his death, instead of a distribution of them among his surviving relations. All the chattels which he has collected during his life, including tusks, gongs, and precious China dishes, are broken in pieces and thrown away; and in the villages may be seen heaps of these fragments of property which custom or some singular superstition has deterred the living from appropriating. The ports frequented by the foreign trading-vessels are all in the north-western part of the group, where the people are evidently of a mixed race, the natural result of strangers from the west having married and settled among them during an intercourse which appears to have extended over several centuries. Their hair is usually black and strongly curled. Like the African Somali, they wash it with wood-ashes or lime water, which impart to it a lightish colour and cause it to appear rough, both these peculiarities being considered very tasteful by the Alfoeras, as well as by the Papuans. The Arruans are taller and more muscular than the Malays and Bughis of Celebes, but are inferior in proportions, if not in stature, to the ordinary run of Europeans. The usual height of the men is from five feet four inches, to five feet eight inches, and there is a great inclination to slimness about the lower extremities among the taller men, some of whom attain the height of six feet. Vorkay, an inland lying exposed to the ocean at the south-eastern extremity of the group, is of great importance from its pearl fishery. At a distance of eight miles to the eastward, lie several small islands, between which and Vorkay the trepang banks are situated. At low water, hundreds of men, with their wives and children, may be seen wading from Vorkay towards these isles (the water being only two or three feet deep,) carrying a basket at their backs, and having in their hands a stick, provided with an iron point. When the water is deeper than this, they make use of canoes. For fishing on the banks situated at a greater distance, the Alfoers use a prahu, constructed for the purpose, in which they embark their entire families. These vessels have a very strange appearance. They have great beam, and the stern runs up into a high curve, while two planks project forward from the bows. The family resides in three or four huts composed of *atap*, or Nipa fruticans leaves, erected within the vessel, and a railing runs entirely round it, apparently to prevent the children from falling over-board. The prahu is propelled by a large sail made of rushes, which folds up like a fan (in a similar manner to the sails of a Chinese junk), set upon a tripod mast of bamboos, while it is steered with two rudders. Two other masts are also erected, which answer no purpose but that of displaying several small flags. The Pearl Fishery is thus carried on. The trader makes an agreement (for the oysters) for so much a hundred, paying in advance a certain quantity of arrack, cloth, &c. When the price is agreed on, the fisher goes to the bank and dives for the oysters, which are mostly small and black, in from twenty-four to thirty feet water, selecting the best he can find. The diving is attended with much difficulty and danger, as, from the time he remains under water, the blood often bursts from the nose and mouth of the diver, while he is also liable to be destroyed by the numerous sharks which are to be found there. In engaging these people, it is necessary to pay off their debts, and, free from this incumbrance, they will readily proceed to any part of the Archipelago. These islands have become the emporium of the south-east corner of the Archipelago, and form a connecting link between the rich islands of the Indian Seas and the Australian continent to which they are ethnologically related. They are probably destined to attain considerable importance, when the northern shores of Australia are settled and civilised.—*Mr. Earl's Indian Archipelago and Papuans Quarterly Review, No. 222, p. 512. Kolff, Voyage of the Dourga in John's Indian Archipelago, Vol. ii, p.* 89. See India, p. 350, 552. Kyaboka.

ARROWS are sometimes used in north-western India, as tests of innocence. The opposite ends of two arrows are held by a rattan laid upon the hands by two persons placed opposite to each other; they are parallel to and just sufficiently apart to allow of the suspected person's hand being held between them. The ends of the arrows merely rest upon the fingers. The arrows are supposed to move towards and close upon the guilty hand. See Divination.

ARROW-HEADED IPOMÆA. See Ipomæa.

ARROW-ROOT.

Pen-bwa ...	BURM.	Jau-irsi ...	TAM.
Kua-ka-neshasteh	HIND.	Kua maoo, ...	„
Tikhur ...	„	Arrow-root kelangu	„

This is a largely exported article, from several of the countries of Southern Asia The name was originally applied to the rhizome or root of Maranta arundinacea, in consequence of its supposed efficacy in counteracting the effects of wounds inflicted by poisoned arrows. Of late years, however, the signification of the term has been employed to designate almost every fecula or starch, which bears any resemblance to the true Maranta Arrow-root. In the great Exhibition of 1851, there were present the Arrow-roots of Trinidad; Bermuda; British Guiana; Montserrat: Jersey, Guernsey: Van Dieman's land; Western Africa; and East Indian varieties from Assam; Calcutta, Calicut; Ruttnagherry: Vizagapatam; Borneo, Java; and Ceylon. In the West Indies, Arrow-root is obtained from the Maranta arundinacea, M. allongia, and M. nobilis; also from the Canna glauca and C. coccinea: to both of which the local name of tous les mois, or tulema is applied. In the East Indies, Arrow-root is prepared from the Maranta arundinacea, also from M. ramossissima, a Sylhet species. The Maranta arundinacea was introduced in 1840-1841, into Rutnagherry, by the Collector, Mr. Elphinstone, where it throve extremely well, though it is not grown to any extent. It was introduced into the Tenasserim Provinces, several years ago, by Mr. O'Riley, and the Arrow-root made is not inferior in quality to any. East Indian Arrow-root, is now obtained largely from the Maranta aurundinacea, which is largely grown in Travancore, at Chittoor near Arcot, in the Tenasserim provinces, at the Andeman Islands. The Mahabaleshwar arrow-root is obtained from Curcuma caulina, Graham. In Travancore, arrow-root is obtained mostly from the Maranta arundinacea, but the fecula of Curcuma angustifolia and of the cassava meal from the Jatropha manihot is likewise sold under that name, but according to Roxburgh, O'Shaughnessy and Royle, Curcuma angustifolia, is also the source of an arrow-root prepared at [illegible] Benares, in Bengal and Chittagong. The tuber [illegible] urcuma rubescens, *Roxb.* also are descr [illegible] aughnessy as yielding an arrow-root in [illegible] ore and Bengal; those of C. leucor [illegible] Roxb. in Behar, and, as tikor, the *Hindi* ter[illegible] for all such feculæ, that from the [illegible] of Batatas edulis is sold at Patna and [illegible] pur. Ratnagherry arrow-root is obt[illegible]m Curcuma pseudomontana of Graham as also Alpinia galanga Swartz and Canna glauca, Roscoe. Indeed, many households in India, make the arrow-root for home consumption, from the products of their own gardens. We have seen it thus in Thayetmyo the Andamans, and Secunderabad. The Rutnagherry Arrow-root is prepared principally from the "kut-cherra" or perhaps "kutchoora," a general term in that part of India applied to all the species of curcuma.—*Mason. Hassall. M. E. Jur. Reports. Simmond's. Faulkner. Cal. Cat. Exb.* 1862. See notices under Curcuma angustifolia; Food; Marantaceæ; Maranta arundinacea; Curcuma leucorrhiza, also Curcuma rubescens.

ARROW-ROOT-KALANG. TAM. Arrow-root. Maranta arundinacea.

ARROZ. PORT. SP. Rice.

ARRUB-UL-SALIB. ARAB. Solanum nigrum; S. dulcamara.

ARSACES I, B. C. 254-250, the first of Arsacidan kings, a native of Balkh, rev under Antiochus Theos, is supposed to [illegible] been killed in action with Ariarathes of Cappidocia, but the date and circumstances not known.

ARSACES II, (Artabanus ?) son of Arsaces I about B. C. 220, at first extended the Parthian empire but was afterwards driven into Hyrcania by Antiochus Magnus in B. C. 212, ; allying himself with the Scythians he recovered Parthia.

ARSACES III, B. C. 196, called Priapatius, or Phriadatius, son of Arsaces II reigned 15 years, left three sons, Phrahates, Mithridates and Artabanus.

ARSACES MITHRADATESI, B. C. 177, made Balkh his capital, subdued Media and Persia and captured Babylon, brought under his dominion Western Bactria, Aria, Seestan, and Arachosia, and made a successful expedition into India.

ARSACES PHRAHATES II, B C. 139. In his reign Bactria seems to have been subjugated entirely by Scythians. He was defeated and slain in B. C. 130, when restraining the Parthians from ravaging the country.

ARSACES ARTABANES, B. C. 126, uncle of Phrahates and youngest son of Priapatius, died of a wound received in action from the Tochari Scythians. After many kings the Greco-Parthian or Arsacian dynasty in central Asia ended with Arsaces Artabanus in A. D. 215, who was involv[illegible] in a war with Rome, but ultimately slai[illegible]ttle at Balkh by one of his Parthian o[illegible] the [illegible]deshir Babakan or Artaxerxes, wh[illegible]ned his own, that of the Sassanians in [illegible] 235 and it lasted nearly 500 years. The capital in the time of the Cæsars was at Selucia on the Tigris. The system of Government was Asiatic, by Satraps, or rulers possessing full power over the persons and properties of all the subjects of the state. See Arsacidæ.

ARSACIA. Rhages, Europa, Arsacia, and Rhey, have all, at different periods, been designated to be this ancient metropolis ; each name giving just grounds for anticipating the richest succession of antiquities.—*Porter's Travels. Vol. I., p.* 357.

ARSACIDÆ. This name was given to the Parthian kings whose family name was Arsaces. The Arsacidian kings of Armenia, according to Moses of Chorene, reigned from B. C. 130 to A. D. 450, when the Armenian kingdom was extinguished. (*Thomas' Prnsip, p.* 300.) But *Thomas' Prinsep, Vol. ii,* 76. gives sixty kings from Arsaces I in B. C. 255 till the succession of Artaxerxes, *King of Persia*, the first of the Sassanidæ. Arsaces I, is described by some as a native of Sogd ; by others as of Bactria, but by Moses of Chorene as of Balkh, and Moses adds that the dynasty was called Balkhavensis or Pahlavian. He used Greek only on his coins, and in his public letters and correspondence only, with the head of the sovereign on one side. Only one coin has a lingual inscription. The last of the dynasty, Arsaces Artabanus, became involved in a war with Rome, but was ultimately slain at Balkh, by one of his Parthian officers, Ardeshir Babekan, or Artaxerxes.—See Greeks of Asia : Kabul, pp. 435-437 : Persian kings.

ARSENIC, is a metal resembling steel in colour, crystalline, volatile below a red heat, vapor of a strong garlic odour, readily oxydised : with one equivalent of oxygen it forms the arsenious, with two equivalents the arsenic acid With sulphur it forms the yellow sulphuret, orpiment, and the red, realgar. *Beng. Phar. p.* 313. The various compounds of arsenic are to be obtained in every bazar in India, and the native medical practitioners, painters, &c., considerably employ them. None of the compounds of Arsenic have been discovered to be products of Southern India, but they are imported largely. The white oxide from Bengal, the red and yellow sulphuret from Burmah, where it is found in great quantities, as also from China and Japan and the Persian Gulf. Dr. Helfer reported the existence of ore sof arsenic in the Mergui Islands, Mr. Piddington found it in the antimony ores, and Professor Mitchell also found arsenic in lead ore that he analyzed—(*Mason.*) Arsenic is principally employed in trade to produce a peculiarly vivid and showy shade of green which has superseded the less decided tints. This dangerous material is used to colour children's toys and sweetmeats : papers, coloured with this green, live fruit boxes, wrap up confectionery chocolate, line books, house walls, and it is used for tinting food articles, and colouring articles of dress. Its white oxide, Safaid Sambul, has long been used in India for the cure of intermittents. Although Dioscorides and Pliny, Celsus and Galen used this substance, in which they were followed by the Arabian physicians Rhazes, Serapion and Avicenna, none of these appear to have employed it in fever and it was not till the end of the 17th and the commencement of the 18th century that the treatment of intermittents by arsenical preparations became known in European practice. Senious acid has real febrifuge properties in intermittents the product of marsh miasma. It succeeds in tertians better than in quartans and quotidians. The tolerance of Arsenious Acid administered up to 1½ gr. and even a litte more daily, has been complete in one-half the patients. The disturbances of the system it has caused has seldom been of importance. This tolerance does not necessarily require the aid of a copious diet and good supply of wine. The employment of emeto-cathartic medicines has the triple advantage of facilitating the tolerance of the medicine, of stopping all its disagreeable effects and of helping to cure the fever. Jacquot's Report goes to show that emetics increase much the effect of Arsenic, while their action is indifferent with quinine. It is prudent to suspend the use of the medicine on the occurrence of pain at the epigastrium, colic, nausea or diarrhœa. The Arsenious acid should be administered during the intermissions or the decline of the paroxysms. When the paroxysms have been stopped the use of the medicine should be gradually diminished, as it was commenced. The preparations of Cinchona administered after Arsenic appear to be more efficacious, than when simply administered by themselves. This is denied by Jacquot probably with reason. The arsenical treatment is less powerful and less sure than Quinine. Relapses do not appear to be either more or less frequent under the one or the other treatment. The arsenical treatment should not be adopted in the treatment of pernicious fevers.—*Macniven and Cameron. Paper Trade Review. Ind. Anns. Med. Sci. for April* 1856, *p.* 398. *Bengal Pharmacopœia, p.* 313.

ARSENIC, OXYDE NATIF. FR. Arsenic.

ARSENIC, Red Sulphuret of.

Zurneik surkh ...	AR?	Lall-sumbul ...	HIND.
Bi-ssulphuret of Arsenic.	ENG.	Mansil...	„
Realgar	„	Warangan ...	MALAY.
Sandarach	„	Barangan	„
Red Orpiment ...	„	Zurneik-surkh ...	PERS.
Red Arsenic ...	„	Manahsila... ...	SANS.
Lal-sumbulkhar...	DUK.	Kudire'-pal-pashănăm	TAM.

This is found a native in Saxony, Bohemia, China, Persia, and according to Mr. Elphinstone in Balkh. According to Mr. Rohde, a coarse description, Manosilla, *Tam.* Ustarkhi, *Arab*, is common in the bazars of India, and is only used as a pigment. In England it is used with saltpetre and sulphur for fireworks.—*Rohde's MSS. Faulkner. Tomlinson.*

ARSENIC, White Oxide of,

Zarnik...	AR.	Arsenic oxyde natiff	FR.
Turabul halil? ...	„	Weisser arsenik...	GER.
„ halik? ...	„	Arsenik	„
Sum-ul-Far ...	„	Arsenik saure ...	„
Shuk	„	Arsenichte saure..	„
Turab-ul-halq ...	„	Sanchya	HIND.
„ „ kai ...	„	Sumbul-khar ...	„
Tein hpy-so ...	BURM.	Sumul...	„
Arsenious acid ...	ENG.	Arseneo uxeno ...	IT.
White Arsenic ...	„	Acidum areniosum	LAT.
Arsenic	„	Warangan putih.	MALAY.
White oxide of Arsenie	„	Wrongon ...	MALEAL.
Suffed sumbul-khar	DUK.	Sumbulfar... ...	PERS.
Arsenic	FR.	Sweta pashanam.	SANS.
Arsenic blanc ...	„	Velle pāshāuam..	TAM.
		Telāpashānam ...	TEL.

The white oxide of arsenic is abundant in every bazaar in India. It is brought from the Persian Gulf and China, in the latter country being obtained by sublimation from Hartal, or native sulphuret of Arsenic.—*Faulkner. Williams's Middle Kingdom.*

ARSENIC, Yellow Sulphuret of.

Ursanikun	AR.	Auri Pigmentum	LAT.
H'say-dan	BURM.	Barangan... ...	MALAY.
H'say-dan-shwaywa	„	Warangan ...	„
Orpiment. Ter sulphuret of Arsenic	ENG.	Zerneik-zard ...	PERS.
Hartal	DUK.	Zarni...	„
Orpiment	FR.	Zarna...	„
Rauschgelb ...	GER.	Haritalaka ...	SANS.
Arsenikon... ...	GR.	Oropimenti ...	SP.
Hartal	HIND.	Arridaram, yellikud-pashaunm.	TAM.
Orpimento	IT.	Doddi pashauam.	TEL.

This is found native in S. America: Saxony, Persia and China. It has a bright lemon or golden yellow colour. It is brought to Bombay from the Persian Gulf and is an article of trade from China and Burmah where the red is also procured and from Japan.

In China the sulphuret of arsenic is sometimes cut into ornamental figures in the same manner as prehnite and agalmatolite.—(*Williams, p.* 248.)

Yellow Orpiment is much used by the Tamil painters, in preparing a yellow pigment. " Native Orpiment, the auri pigmentum of the ancients, is of a brilliant yellow colour. It is used in dyeing and calico printing. *Ainslie.*

ARSENOE, called also Myos Hormos, a port on the Red Sea, the emporium for Indian articles during the time of the Greeks holding Egypt.

ARSHA: See Hindu.

ARSI. HIND. ارسي. A small mirror worn by women on the thumb, in a thumb ring.

ARSINA. CAN. Turmeric.

ARSIS RUGOSA. LOUR. Syn. of Grewia microcos.—*Linn.*

ARTA, according to Herodotus, the town of Herat, whence the term Artæi, for th[illegible] ancient Persians. See Hindu.

ARTABANUS. Of the Parthian Kings, the[illegible] were five of this name, the first in B. C. 2[illegible] and the last about A. D. 235, and with wh[illegible] ended the Arsacidæ, he having been slain [illegible] Ardashir Babegan (Artaxerxes) one of his [illegible] cers, who became the first of the Sassani[illegible] It is supposed by Malcolm, that Artabanus [illegible] was the Shah-poor of the Greeks. His [illegible] Vonones, reigned for a short period. [illegible] name is sometimes written Pollas: he was [illegible] Volageses of the Greeks, whose war with the Emperor Nero, and embassy to Vespasian, are related in the Roman history. Hoormus, appears to have been Artabanes the fourth of the Romans.—*Malcolm's History of Persia, Vol. i, p.* 85. See Greeks of Asia. Kabul, p. 437.

ARTA BHAGA, according to Herodotus, Lord of Herat. In Hindu mythology, one of the Rishi. See Hindoo.

ARTABOTRYS ODORATISSIMUS, *R. Br.*

Uvaria odoratissima. *Roxb.*
„ uncata. *Lour.*
Unona esculenta. *D. C.*
„ uncinata. *D. C.*
Modira Walli ?......MALEAL ?

The generic name is derived from Artao, to suspend, botrys, a bunch; the peduncle has a curious hook, which lays hold on any support near and assists in bearing up the clusters of fruit. This is a scandent shrub with shining leaves, and very sweet smelling flowers. It is grown in Bombay, gardens, as an ornamental plant. The flowers of the Artabotrys odoratissimus and Unona odorata are extensively cultivated in China for their perfume.—Drs. Hooker and Thomson describe Artabotrys Burmanicus, D. C., of Burmah and Mergui. A. Cadatus, Wall. of Silhet; A. Odoratissimus, R. Br. of Ceylon and Malacca. A. Suaveolens Blume of the Archipelago and A. Zeylanicus.—*H. f. and T. Graham's Cat. pages 4 and 5. William's Middle Kingdom. Voigt, p.* 15.

ARTAMUS FUSCUS. Toddy Shrike, feeds on the flies and insects that hover near to the luscious juice of the Palmyra palm. It is the Tal-Chatok of Bengal, and is found growing there in Assam, Arakan and in India generally.

ARTAMUS LEUCORHYNCHOS, one of the Swallow Tribe. It is the Lanius leucorynchus of authers.

ARTANISSA. Pliny, writing of Iberia, observes that its chief city was called Harmastis, and that it was situated near the river Neoria. Ptolemy mentions the same place, under the name of Artanissa.—*Porter's Travels, Vol. i. p.* 104.

ARTAXERXES, this name, as known to [illegible]e Greeks and Romans, is their mode of pro[illegible]uncing Ardeshir. Ardeshir Babegan, the [illegible]n of Sassan, an officer of the Parthian king, [illegible]saces Artabanus V, murdered his sovereign [illegible] assumed the Persian throne as the first of [illegible] Sassanian dynasty, in A. D. 226: his [illegible]cessor was the Shappur or Sapor, who cap[illegible]d the Emperor Valerian. There were other [illegible]xerxes, the first in A D. 381, and the se[illegible] A. D. 629. And the Sassanian dynasty [illegible]d in A.D.641, when Yezdejird or Izdejerd, [illegible]as overthrown by the mahomedans. See G[illegible]s of Asia. Kabul, p. 437. Persian Kings.

ARTAXERXES LONGIMANUS, was the Kai Bahman, or Ardashir daraz dast of the Kaianian dynasty of Persian Kings.

ARTAXERXES MNEMON, a Persian King, B. C. 426, at whose Court Ctesias, resided for some years. After Scylax, Ctesias was the next Historian of India, and in his Indica, Cap. iv; p. 190, he mentions that Artaxerxes Mnemon and his mother Parasatys presented him with two iron swords, which when planted in the earth, averted clouds, hail and strokes of lightning. This is the first notice of the lightning conductor. The Tee on the tope of every buddhist pagoda in Burmah shows their acquaintance with one means of protecting, from lightning. See Scylax: Lightning conductor.

ARTEMISIA WORMWOOD, a genus of plants of the natural order Matricariaceæ, of which *Roxburgh* describes ten and *Voigt* nine known species in India, viz. Artemisia.

Abrotanum...	... *L.*	Paniculæformis	*D. C.*
Caruiflora ...	*Buch.*	Parviflora ...	*Buch.*
Grata	*Wall.*	Scoparia ...	*Waldst.*
Indica	*Willd.*	Vulgaris ...	*L.*
Lactiflora ...	*Wall.*		

Most of these grow in the mountains of Northern India, Persia, Cashmir, Nepal, Kamaon, Crimea, Caucasus, Armenia, Khassya, Siberia, China and Japan, but several, as the A. Abrotanum or Southernwood and A. Indica, are cultivated in India, as also is the Naga doua or A. vulgaris, and A. grata belongs to the Peninsula. The European Absinthium, though not growing in India, furnishes part of the (Afsantin) absinth used in Asiatic medicine, and the A. Chinensis of China and Siberia, supplies the materials for the Moxa. According to *Dr. O'Shaughnessy*, the A. Judaica, is the Saheba of Avicenna, and a native of Judea, Arabia and Cochin China, and is known as the Indian worm seed, or Indian Semen Contra, finely powdered and sifted, it is a popular worm remedy, especially in the round and long worms of children: the dose is three to ten grains given in honey or milk.—*Beng. Phar. page* 406. *O'Shaughnessy, page* 416. *O'Shaughnessy. Beng. Pharm.* 270. *Dispensatory,* 417. *Roxb. iii,* 417-24.

ARTEMISIA ELEGANS, ROXB., Particularly when young is uncommonly elegant when in blossom.

ARTEMISIA INDICA, *Willd.*

Afsantin... ...	AR.	Mustaru	HIND.
Kashus-Rumi	„	Gund-mar	„
Dona	BENG.	Barun-jasif-i-kohi.	PERS.
Indian Worm-wood.	ENG.	Artemasaya	„
Mustaru, ...	DUK.	Dona ...	SANS.
Dona......	HIND.	Damana Suraparna	„
Duna	„	Walko-Gundo...	SIND.
Marwa	„	Machi-patri... ...	TEL.
Machi-parna... ...	„		

Common in Indian gardens, and can be substituted for the A. absinthium of Europe. —(*Roxb. Voigt. O'Shaughnessy,* 444. *Bombay Products.*) That used in India, comes via Kabul. It is used by the natives as a febrifuge, in asthma, in diseases of the brain, and also in dyspepsia. The leaves are much used in scents, for its strong odour; it yields a volatile essential oil when distilled. Price 5 annas per lb. *Cat. Ex.* 1862. *Roxb. Voigt. O'Shaughnessy.* 444.

ARTEMISIA MADERASPATANA. WILLD. Syn. of Grangea Maderaspatana, Poir.

ARTEMISIA STERNUTATORIA, or Sneezewort, is the Nak-Chikni or hachitti of India and the Afkar of the Arabs.

ARTEMISIA VULGARIS. *Linn.*

Atmisa...	AR.	Nagdowna ...	HIND.
Mug wort... ...	ENG.	Madi patre	„
Worm wood... ...	„	Birun-jasif... ...	PERS.
Naga dana. ...	HIND.	Davanama	TEL.

This is a native of Europe and according to Thunberg of Japan. He says that for tinder the Japanse use the woolly part of the leaves which is prepared so as to form a brownish coloured wool. This substance catches fire much quicker than Moxa, but Dr. O'Shaugnessy says that this is a native of Europe and that the Moxa of Japan is prepared with the leaves and stalks of a neighbouring species.—*O'Shaughnessy, page* 415. *Thunberg's Travels. Vol. iii. p.* 71.

ARTEMON, the last Bactrian king, A. C. 207, who ruled in Asia, Drangia and Arachosia.

ARTESIAN FIRE-SPRINGS IN CHINA.—According to the statement of the Missionary Imbert, the Fire-springs, "Ho-tsing" of the Chinese, which are sunk to obtain a carburetted-hydrogen gas for salt-boiling, far exceed the European artesian springs in depth. These fire-springs are very commonly more than 2,000 feet deep; and a spring of continued flow was found to be 3,197 feet deep. This natural gas has been used in the Chinese province Tse-tschuan for several thousand years; and "portable gas" (in bamboo-canes) has for ages been used in the city of Khiung-tscheu. More recently, in the village of Fredonia, in the United States, such gas has been used both for cooking and for illumination.—*Curiosities of Science, p.* 118.

ARTICHOKE. Cynara scolymus.

Harshuf ...	ARAB.	Kharshuf ...	PER.
Kanjir	HIND. PERS.		

Only cultivated in some gardens of India, and is not general: the cultivation is expensive.

ARTICHOKE, JERUSALEM. Helianthus tuberosus. Cultivated for the tubers attached to the roots, may be lifted annually, after flowering, and kept like potatoes for three months, or they may be allowed to remain for years in the same situation, if kept clear of weeds and the ground annually top dressed with manure; cooked similar to potatoes, and sometimes fried.—*Jeffrey.*

ARTICULATA, a division of the animal kingdom, in which are included the Aptera, Arachnida, Myriapoda, Stomatopoda, Cirrhipedia and Annelida.

ARTIE, in Madras, timber of various sizes 12 to 18 feet long and from 1 to 1½ feet in breadth.

ARTIFICIAL HATCHING of Eggs, Fish, Pearls. See Eggs. Fish. Pearls.

ARTOCARPUS, a genus of plants belonging to the Urticaceæ, several species of which occur in the South East of Asia. Voigt enumerates eight species, and as most of them furnish useful products, they are noticed separately. But, it may be mentioned that the *Trap* tree, which furnishes the Gutta used as bird lime in the Malayan Peninsula, and at Singapore the fibres of its bark are used for cordage, fishing lines and nets; the *Chowat Kurnat*, similar to the above, from Beram River, also the *kumut* or bark cloth, worn by the Karens when mourning for the dead, from the river Baram, and Glam-tree bark, from Borneo, which furnishes a paper-like-bark, much used in caulking the seams of vessels, are all supposed by Dr. Royle to be species of Artocarpus, and the Catalogue for the Exhibition of 1862, states that the Singapore Trap tree is an *Artocarpus* and furnishes the Gutta used as bird lime, and the bark is also used for fishing lines, cordage and nets. One species, A. Philippensis, Lam. occurs as a tree in the Philippines, and the A. polyphema, PERS. is a tree of Penang, perhaps the Glam or Trap above noticed. A, angustifolias Roxb. is mentioned by Voigt as a tree of the Malay Islands, and A. serratus Roxb. as a tree of Travancore. *Artocarpus integrifolia* is the jack, *A chaplasha*, the lesser or thorny Jack, and *A. laecucha* the small Jack. The fruit of all three species is prized by the Burmese as an article of food, especially the first, which grows to great perfection every where throughout the province with little care.—*McClelland. Mason. Useful Plants. Royle Fib. Pl. p.* 341. *Hog's Vegetable Kingdom, p.* 679-680. *Mason's Tenasserim. Voigt, p.* 289-290. *Cat. Ex.* 1862. *Roxb. iii,* 521-527. Wight also figures lanceæfolia 670. —See Chowat Kurnat. Dyes.

ARTOCARPUS, *Species.* Small Breadfruit. This species is not scarce in the Tenasserim forests. It yields an orange colored fruit resembling in taste a custard apple, and in appearance a fig.—*Dr. Mason.*

ARTOCARPUS. *Species.*

Thoun-ben. *Burm.*

Dr. Wallich tells us that a species of this genus grows in Tavoy, and is a large tree, used generally in boat building. Perhaps identical with the last.

ARTOCARPUS. *Species.*

Patta del. SINGH.

Grows in the Southern provinces of Ceylon, and is there used for boats and buildings, at cubic foot of the wood weighs 24lbs. and it is said to last 30 years. The fruit 9 x 2½ inches is boiled and eaten as food.—*Mr. Mendis.*

ARTOCARPUS, *species.*

Py-nathe ...	BURM.	Tanna	BEN. BURM.

Dr. Wallich describes this as growing in Tavoy, but that its wood is not used.

ARTOCARPUS, *species.*

Myauk Sook.—*Burm.*

A tree of Akyab, used in house-building. It grows to a large size, very plentiful in the province and the fruit is edible.—*Cat. Ex.* 1862.

ARTOCARPUS, *species.*

Toun-nein-nai......	BURM.	Toun-pein-nai...	BURM.

A tree of British Burmah. Its wood yellow, a cubic foot weighs lbs. 39. In a full grown tree on good soil the average length of the trunk to the first branch is 80 feet and average girth measured at 6 feet from the ground is 12 feet.—*Dr. Brandis in Cat. Ex.* 1862.

ARTOCARPUS, *species.* Trap tree, of Singapore, furnishes the gutta used as bird-lime; and the fibres of its bark are used there for fishing lines, cordage and nets.—*Royle's Fib. Pl. Cat. Exhib.* 1862.

ARTOCARPUS CHAPLASHA, *Roxb.* iii. 525.

Lesser Jack ...	ENG.	Chaplash ...	BENG.
Thorny Jack ...	„	Chaplasha ...	HIND.

This tree grows in Malabar, the eastern frontier of Bengal, Assam, Tipperah, and Chittagong, and in some places attains an immense size. Its trunk is straight, yields a valuable timber, from which the canoes of the Hence and Gomootee rivers are made. The wood is applied to various other purposes and is said by Dr. Roxburgh to be reckoned superior to every other wood, particularly valuable for work which has to be immersed in water.—*Roxb. iii.* 525. *Voigt,* 290.

ARTOCARPUS ECHINATA. *Roxb. iii.* 527.

Toung Ben. ...	BURM.	Mountain Jack ...	ENG.
„ Peing-nai.	BURM.	Taunpooni ...	MALAY.
Kanae Kya-tha...	„	Tampoine ...	„

This is a large tree (according to Roxburgh a moderate sized tree) with its leaves gashed like some species of oak. It is very common about the Balaghat and Wynaad, is found in Burmah, and, though not abundant, all over the Tenasserim and Martaban Provinces, in Amherst, Tavoy and the Mergui Archipelago, and in other places east of the Bay of Bengal—a large expanse of conntry. Its maximum girth is 5 cubits and maximum length 30 feet. The wood is not known to be used in Sonthern India, but, in Burmah, according to Dr. Mason, it is deemed a valuable timber by the natives, especially for canoes. Captain Dance however, tells us that though it floats in water when seasoned, the seasoned wood is too light and spongy for durability, and should be regarded as a useless wood. Whether these conflicting opinions be the consequence of examining trees which have grown in different localities subseqnent enquiries must determine, but the wood possibly improves by immersion in water. It is said to produce an agreably acid fruit which Roxburgh says is eaten by the natives. And Dr, Mason mentions Dr. Wallich as saying that it produces a sort of caoutchouc with which the Burmese pay their boats. But Dr. Mason imagines this to be a mistake, as the Burmese almost universally pay their boats with a substance that is produced by a bee, mixed sometimes with dammer.—*Dr. Mason. Mr. McIvor. Voigt,* 290. *Roxb. iii.* 527. *Captain Dance.*

ARTOCARPUS HETEROPHYLLA. LAM.

Syn. of Artocarpus integrifolius.

ARTOCARPUS HIRSUTA. LAM.

Syn.

Artocarpus pubescens, WILLD ?? AINSLIE ?

Helbulsoo...	CAN.	Aini mara	MALEA.
Hairy Bread-fruit tree	ENG.	Ansjeni... ...	„
Wild Bread-fruit tree.	„	Ansjeli	„
Pat Fannas... ...	MAHR.	Del	SINGH.
Hebolsu...	„	Aladel	„
Ràn-Fannas... ...	„	Anjili maram... ...	TAM.

This large, handsome tree, well adapted for affording shade. It is indigenous in Burmah, is not found in the Northern jungles of the Bombay Presidency: sparingly in those south of the Savitri to the bounds of Sawantwarri, after which it becomes more plentiful and continues abundant all down the Western Coast of the Peninsula, attaining in Malabar, a great magnitude. Dr. Gibson says that it grows in Canara and Sunda, above, and in the ravines of the Ghats, but mostly in the Honore and Bilgy Talooks, and is there valuable for canoes and planks. It is scarcely entitled to a place in the list of Coimbatore woods, being a native of the coast, and not extending so far inland, but abounds in the forests of Malabar, whence Mr. F. N. Maltby, in 1860, estimated that ten thousand loads per annum, of this wood, for five years, could be supplied at the rate of twelve to fourteen rupees per candy. It grows on the Western, Southern and Eastern sides of Ceylon, and its timber, which is there used for fishing boats and in house building, weighs 40 to 51 lbs. the cubic foot, and is calculated to last from 25 to 70 years. The fruit (9 in. by 3 in.) is there boiled and eaten as food by the natives. It yields the Anjely-wood of commerce, esteemed a useful timber which bears exposure under water, and valuable for canoes, fishing boats, ships' frame-work and in house building, for which purposes it is largely used on the Western side of the Peninsula of India, in Malabar and Canara, and is sought after for H. M. Dockyards. Its bark is occasionally used in Canara in the preparation of a brown dye, the dye yielded by the Jack and Champada, being yellow. The fruit is the size of a large orange, and abounds in a viscid juice which flows freely from the rough rind if touched. This is manufactured into bird lime. The pulpy substance, which surrounds the seeds is much relished by the natives, being almost as good as the fruit of the Jack.—*Dr. Wight. Madras Exhibition Juries' Reports. Dr. Gibson, Dr. Mason. Mr. Jaffrey. Voigt, p.* 290. *Useful Plants, Dr. Cleghorn, in Conservator's Reports. Mr. Mendis. Roxb. iii.* 521. *Bombay Products.*

ARTOCARPUS INCISA. *Willde.*

Rademachia incisa, *Thunb. var.* a.
Artocarpus communis, *Forst. var.* b.
Soccus granosus, *Rumph, var.* a.
,, lanosus. ,, ,,
Artocarpus incisus, *Linnæus, var.* a.

Bread-fruit tree... ENG. | Nang-ka... ... MALAY.
Rima fruit au pain... ... SONNERAT.

This tree is a native of the South Sea Islands, and has been introduced into the various parts of South Eastern Asia, into Ceylon, in some parts of the Madras territories, where it is occasionally seen in gardens, in parts of the Bombay Presidency, in some parts of the Dekhan, is cultivated in a few gardens in Tavoy and Moulmein, is extensively cultivated throughout the Malay Archipelago as also the variety, called A. communis. According to Dr. Mason, it is the true seedless bread-fruit tree cultivated in Penang, and recently introduced into Mergui, where it is said to flourish. It is of slow growth, but it attains a tolerable large size in Bombay, where however it seldom ripens, the fruit which is muricated falling off in the cold season. In the Dekhan, its fruit is of that variety which is full of seeds and of no value, is the size of a large orange, or small pumplemose with a muriated rind, but it bears well at Tavoy and Moulmein. The fruit of the useful variety, cut into slices and fried, has something of the flavour of the sweet potato, similarly dressed. Like the jack, the Artocarpus integrifolia, it bears fruit on the branches, the trunk and the root. It will grow from cuttings, and requires a light soil, with care, and watering at first. The bark stripped, and then beaten and prepared, makes a kind of cloth with which the South Sea Islanders clothe themselves. At Tahiti, clothing made of it, and worn chiefly by the common people was more common than that made from the paper mulberry, though inferior to it in softness and whiteness.—*Royle, p.* 84. *Crawfurd's Dictionary. Dr. Riddell. Dr. Mason. M. E. Juries' Reports, p.* 24. *Voigt,* 290. *Roxb. iii.* 527.

Variety a. ARTOCARPUS INCISUS. *Linn. fils.*

Rademachia incisa. *Thunb.*
Socous granosus. *Rumph.*

Bread-nut... ... ENG. | Rima au pain... SONNERAT. FR.

This is the variety alluded to above with muricated fruit full of seeds and useless for food, is that commonly seen in the South of India, and so extensively cultivated throughout the Eastern Archipelago.

Variety b. ARTOCARPUS COMMUNIS. *Forst.*

Soccus lanosus. *Rumph.*
Artocarpus incisa. *Willde.*

This is the true bread-fruit tree of Dampier, Anson, Cook and Ellis, growing in the South Sea Islands, especially Otaheite and the Moluccas, but growing also in Java, Sumatra, at Mergui, in Ceylon, at the Mauritius and Bourbon, in the W. Indies and on the Western Coast of South America. It is said to be cultivated in several parts of Peninsular India, but we have never seen it there. It is cultivated in Penang, and to have been introduced into the Tenasserim Provinces and Mergui, where it is said to flourish, but there, too, we have never seen it.

The fruit is terminal, round, not muricated, but marked with reticulations, whose areolæ are flat or but slightly prominent. It is this seedless variety, that has given the name to the tree, and in some Islands of the Pacific is much used. The Malay term Nang-ka is perhaps the Persian Nan-Khah eat-bread.

The fruit has an unpleasant smell. It is often larger than a man's head, and weighs sometimes as much as fifty pounds, is round, greenish, and covered with prominent papillæ, enclosing a white fibrous pulp, which becomes yellow, and succulent at maturity. The pulp contains much starch eat. The natives of the Polynesia Islands, before eating the unripe fruit cut it into quarters and roast it in the ashes. The ripe fruit requires no preparation. The bark when stripped and then beaten and prepared, makes a kind of cloth with which the South Sea Islanders clothe themselves. At Tahiti, clothing made of it, and worn chiefly by the common people, was more common than that made from the paper mulberry, though inferior to it in softness and whiteness.—*Crawfurd's. Dic. Riddell, Juries' Reports, M. E. page* 24. *Royle. p.* 341. *Roxb. iii.* 527. *Voigt,* 290. *Dr. Mason.*

ARTOCARPUS INTEGRIFOLIA, *Linn.*

A. Heterophylla, *Lam.*
Rademachia integra, *Thunb.*
Polyphema Jaca, *Lour.*
Sitodium cauliflorum, *Gært.*

Kantal	BENG.
Kental	„
Peing-nai... ...	BURM.
Pain Nai ?	„
Jaka mara. ...	CAN.
Alase gana mara..	„
Jack fruit tree...	ENG.
Indian Jack tree...	„
Entire leaved Bread-fruit	„
Jaka	„
Pannas	HIND.
Fannas... ...	MAHR.
Bua-nan-ka...	MALAY.
Sukun	MALAY.
Kluwi	„
Tambul	„
Pilavuh. ...	MALEAL.
Kos...	SINGH.
Hirali...	„
Wakara	SING.
Wæla	„
Gedia (the fruit) ...	„
Chopada..	SUMATRAN.
Pila maram... ...	TAM.
Panasa chettu...	TEL.
Veru panasa... ...	„

This valuable fruit and timber tree is found more or less abundantly, all over India, growing rapidly to about 2½ feet in diameter. In the Bombay Presidency, it is met with commonly about villages, rare in the North Konkan, but most common south of the Savitri creek. It is, there, always, planted and often carefully manured, and when so treated it attains a great size. In the South Eastern and Western provinces of Ceylon, its fruit, weighing from 50 to 60 lbs. is used in various ways for food, and its timber, which weighs 42 lbs. to the cubic foot, and is esteemed to last from 25 to 80 years, is in general use for building boats and for all kinds of furniture. Colonel Frith mentions that this wood, in Travancore, is of 0·554 sp. gr. and measures 2 to 4 feet in circumference. Dr. Gibson has seen pillars of it, in the interiors of the buildings of the old forts at Severndroog, having four feet on each side. In Burmah, it occurs abundantly in Rangoon, seemingly indigenous in the forests, and in Moulmein its yellow wood is used to dye the yellow cloths that the poongyes or Burmese priests wear. It is there a large tree and affords a very dark grateful shade, and when the fruit, which is often larger than a man's head is hanging all around its branches, it is a grand object. Malcolm says it is a very common tree in South Eastern Asia, thought to be indigenous, attaining a height of 80 to 100 feet, with thick alternate and spreading branches, and very dark green leaves.

It yields an excellent and valuable timber, at first yellow when cut, but afterwards changing to various shades of brown. When made into tables and well kept, it attains a polish little inferior to mahogany in colour and appearance. It is used for musical instruments and ornamental work. It is suitable for house carpentry in general, but is a very brittle wood when dry does not bear great alternations of dryness and moisture and splits in dry situations. It is well known in England as the jack fruit tree wood, where it is used for cabinet and marquetry work, likewise for the backs of brushes. It affords an excellent fancy wood for tables, chairs, frames, &c., and the roots of the older trees furnish a dark coloured wood admirably adapted for picture frames and carving work of all kinds. The wood is also valued for grain measures. Dr. Mason says that the yellow wood of the jack affords beautiful timber for furniture, and in some parts of India it is highly valued, but this last remark does not seem applicable to the present day, though Mr. Faulkner tells us that jack-wood is imported into Bombay from the Malabar Coast, and was at one time in great request for making furniture. Of late years, however, it has been entirely superseded by blackwood for this purpose. It is imported into Britain in logs from 3 to 5 feet diameter, and also in planks; the grain is coarse and crooked, and often contains sand. The wood is yellow when first cut, but changes to a dull red or mahogany colour. It is still, however, used in parts of India for almost every purpose of house carpentry and furniture, and in England for cabinet work, marquetry, and turning, and also along with satinwood for hair brush backs. The jack-wood is sometimes named orange-wood from its colour and also jack-wood, jack and kanthul. In Cuttack the ghanna or oil mill is made from this wood and its sp. gr. is 0·750 and cost 1*s.* the cubic foot. In the South and West of Ceylon, where the trees are of rapid growth and very fruitful, it is in general use for building: beams, rafters, doors, and furniture are all made of it. It is not a common timber in the Circars, though some good trees are occasionally procurable from the hill zemindaries, resembling mahogany in colour and appearance. Marsden in his history of Sumatra, p. 96, mentions that the roots of the chapada or chapada, (*Artocarpus integrifolia*) cut into chips and boiled in water produce a yellow dye. To strengthen the tint, a little turmeric (the kungit tumma a variety of curcuma) is mixed with it, and alum to fix it; but as the yellow does not hold well, the operation of steeping and drying has to be frequently repeated.

The Fruit.

Peela pullum ...	TAM.
Punnus ...	DUK.
Panasa pundoo ...	TEL.
Jacka ...	MAL.
Chopada . .	SUMATRAN.
Booa Nanca ...	MALAY.
Jack... ...	„
Panasa ...	SANS.

This fruit is not relished by some people owing to a peculiar strong smell that it has: others are partial to it from its luscious sweetness. Aghastier, in his work on diet, says that it is apt to increase the secretion of bile, and if frequently eaten, will produce dyspepsia. The fruit sometimes grows from that part of the trunk which is underground and by its growth bursts the soil and discovers itself. These are always accounted to be the best. The full grown fruit weighs from 30 to 60 lbs., growing direct from the branches, trunk, and roots to which it hangs by a peduncle, and only in aged trees, grows from the roots, where they are detected by the cracking of the soil. The fruit is covered with a very thick, rough green skin, has an unpleasant odour, and is full of white kernels, the size of a pullet's egg, the fleshy parts around which are eaten both green and ripe. It is not prized by Europeans, who, at most, have only tasted it, but it is said to be more relished by a continued use. Natives of India, however, highly prize the fruit, and to the natives of Burmah, where it is more abundant than any other fruit, except the plantain, it is invaluable. It is said to be very indigestible. The kernels of the ripe fruit, boiled or toasted, resemble the Spanish chesnuts in flavour to which Roxburgh says they are not inferior and when roasted are prized by the natives. The green fruit, after removing the outer rind, is used in curries, and, when ripe, the pulp and seeds are used similarly. As with all cultivated fruits, there are many varieties of the Jack. From the juice of the uneatable parts of the fruits and tender parts of the trees, a good bird lime is prepared. In Travancore, the entire fruit is planted, and when the various seeds germinate and grow up, the shoots are tied together with straw, and they unite into one stem, which bears fruit in about 6 or 7 years.—*Roxburgh iii*, 522. *Mr. Mendis Dr. Wight. Mr. A. Jaffrey. Dr. Cleghorn, in M. E. J. Rep. Useful Plants. Crawfurd's Dictionary, Dr. Birdwood's Bombay Products. Dr. Gibson. Dr. Mason. Dr. McClelland. Hog's Vegetable Kingdom. Voigt*, 287, *Faulkner, Holtzapfel, Baker's Papers. Mr. Rohde's M.S.S. Ainslie, p*, 230. *Colonel Frith's Reports, Malcolm's South Eastern Asia. Marsden's History of Sumatra, p.* 96. *Thawaite's En. P. Zeyl. p.* 262. *Cal. Cat. Ex.* 1826. See Furniture, Vegetables of Southern India.

ARTOCARPUS LACOOCHA. *Roxb. iii.* 524.

Artocarpus Gomeziana. *Wall.* M.S.S.

Dephal...	BENG.	Kanna-gona-gass...	SING.
My-ouk-loke ...	BURM.	Kamma-regu... ...	TEL.
My-ouk-louke. ...	„	Laku-chamma... ..	„
Lacoocha Bread-fruit	ENG.	Nakka-renu... ...	„
Small Jack... ...	„	Lowi...	MAHR. OF BOMBAY.

This tree is occasionally grown in gardens or near houses, in Bengal, Burmah and the Tenasserim Provinces, where it is usually called a kind of fig, and two varieties of it grow in Ceylon, near Rutnapura and in the south and centre of the islands. Dr. Royle thinks it may be found to yield fibres. Its roots are used in dyeing yellow. Dr. Brandis says the wood is used for canoes, a cubic foot weighs 40 lbs. In a full grown tree on good soil the average length of the trunk to the first branch is 30 feet, and average girth measured at 6 feet from the ground is 6 feet. The whole tree and unripe ruit contain much tenacious milky juice. The fruit is prized by the Burmese, and is eaten in Bengal. The male spadix is acid and astringent, and eaten by the natives in their curries.—*Roxb. iii*, 524. *Thwaite's En. Pl. Zeyl. Voigt*, 290. *Dr. Royle. Drs. McClelland, Mason, Wight, Brandis. Useful Plants. Flor. Andh.*

ARTOCARPUS MOLLIS. *Wall.*

Tounbein...BURM.

An immense tree in British Burmah, wood used for canoes and cart-wheels. On the hills, large trees rather scarce. A cubic foot weighs 30 lbs. In a full grown tree on good soil, the average length of the trunk to the first branch is 80 feet, and average girth measured at 6 feet from the ground is 12 feet.—*Dr. Brandis.*

ARTOCARPUS NOBILIS, *Thw.*

Del-gass....SING.

A large tree not uncommon in the southern and central parts of Ceylon, up to an elevation of 2000 feet. This tree, has, until lately, been confounded with Artocarpus pubescenes of Willde now, but is evidently quite distinct from that, and apparently from any other hitherto described species. The wood is of very good quality, but not considered of equal value with that of *Artocarpus integrifolia.* The seeds toasted are a favourite article of food with the Singhalese. *Thw. En. Pl. Zeyl.* p. 262.

ARTOCARPUS POLYPHEME, Champadah of Botanists, a tree of the same natural family with the jack and bread-fruit; fruit smaller than the first, but of more delicate flavour, and greatly esteemed by the Malays. It seems to be an indigenous plant of the Archipelago, and even there to be limited to the Western parts of it, such as Sumatra, the Malay Peninsula, and their adjacent islands.—*Crawfurd's Dictionary, page* 93.

ARTOCARPUS PUBESCENS, *Willde.*

White bread-fruit...	ENG.	Del	SING.
Aludel	SING.		

A synonym of Artocarpus hirsuta.

ARTOCARPUS SYLVESTRIS.

Ran fannas...MAHR.

Character of wood not known.

ARTS, MANUFACTURES AND TRADES.

There are but few arts or manufactures, in which Eastern nations excel those of Europe. Perhaps in the spinning and in the weaving and dyeing of cotton and silk stuffs, of such kinds as are suitable for the clothing that they wear and to their habits, the weavers and dyers of South Eastern Asia are not approached by any European race. In field and garden cultivation, in the economy of waters and the utilization of manures, there are several races skilled in varied degrees, though none exceed the Chinese in their acquaintance with these subjects, to their acquisition of which they are stimulated by the example of the Imperial family, the emperor annually ploughing the first field and the empress and her attendants watching the silk worms and their produce. The little permanency, since eight hundred years, of many Indian dynasties, has prevented Architecture attaining the position of which it was capable. For the past 1500 years, in general, are to be seen the result only of spasmodic efforts of hindu and mahomedan sovereigns, such as still exist at Agra, Bejapore, Aurungabad, Gogi, Kulburgah, Dowlatabad, and Hyderabad, but only in the ruins of palaces, and tombs. The hindu sovereignties of India and prior to them, the buddhist and jaina rulers were of longer duration, and the vast cave temples of Prome; Karli; Elephanta; Ellora, and Ajunta testify to the stability and power of their projectors, for some of them must have been in progress for hundreds of years, and their commencement from prior to the birth of Christ. The only Indian sovereigns who have long possessed territories are the rajput races of Rajaputanah, and the solar dynasty of Mewar have erected numerous magnificent structures in their capital. In the towns of Calcutta, Madras and Bombay, there is as yet no building under the British rule of any interest. In Ceylon, the buddhist temple of Anarajpura seems to have been erected prior to the present era. At Rangoon and at Prome are buddhist temples, grand in their colossal dimensions, but the dwelling houses and religous buildings generally in Burmah are all of wood and do not permit the display which can be attained with stone or even with brick and mortar. The architecture and ornamentation of the temples of Southern India have lately been made known by the photographic representations and descriptions of Beejapoor, Dharwar, Ahmedabad, and other cities, by Mr. Fergusson and Col. Taylor. They are by far the most interesting and complete memorials of the ancient sacerdotal and regal grandeur of Southern India which are in existence and give a striking impression of the former splendour of the ruling empires. The Dharwar sculptures are the records of Chalukya, Hoi Sala, Bellal, and other local dynasties. Some of the figures are clothed with defensive armour, and there is no trace of a sewn garment. All the men's figures have short waist cloths or dhotees, like kilts, with an end in some cases cast over the shoulder; the women are in the same costume, but both in the earlier memorial stones and on some of the profuse sculpture on the temple at Hullabeed in Mysore (Dhara Samoodra, tenth to twelfth century, A. D.), they wear bodices, tied in front, as hindu women wear them at present. Many temples in the south and west of India, as also in Guzerat and Orissa, &c., are known to belong to periods as early as A. D. 500. The groups of figures on them are numerous beyond description, the men wear head-dresses in the form of conical crowns richly covered with ornaments; their bodies are naked, and their breasts and arms show necklaces and armlets of very ornate patterns. From the loins to the knee, or middle of the thigh, they have in most instances kilts, as it were, also composed of ornaments; and many are altogether naked; both male and female, with a girdle of ornamental pattern round the loins. These figures abound among the sculptures of Ellora, and upon the hindu temples of Dharwar and Mysore of the eighth to the thirteenth century; also upon the 'Chola' temples at Conjeveram, and elsewhere, probably of the same era. In the Jain sculpture the male and female figures are invariably naked; but ornamented in general with necklaces, bracelets, armlets, and zones of exceedingly intricate and beautiful patterns, in imitation, probably, of the chased goldwork of the period. All these illustrate the early progress of India in many useful arts.

Spinning yarn for weaving is at the present day practised by all classes of women in India; even the highest, at one time, used to amuse themselves with the spinning wheel. Among the agricultural classes, the occupation is constant, or fills up time not required for other occupations. Dr. Buchanan, in one of his able statistical reports estimates the annual produce of hand-spun yarn in one district alone at thirteen lacs of rupees =£130,000. The spindle in use is not much thicker than a stout needle. It is from ten to fourteen inches in length, and attached to it near its lower point, is a ball of unbaked clay to give it weight in turning. The spinner holds it in an inclined position, with its points resting on a piece of shell, and turns it between the thumb and forefinger of one hand, while she at the same time draws out the single filaments from the roll of cotton in the other hand, and twists them into yarn upon the spindle. A certain degree of moisture, combined with a temperature of about 82 degrees, is the condition of the atmosphere, best suited to the carrying on of this operation. Dryness of the air prevents the filaments of cotton, from being sufficiently attenuated or elongated and is therefore unfavourable to the spinning of fine yarn. The Dacca spinners usually work from soon after dawn to nine or ten o'clock, and from three or four in the afternoon till half an hour before sunset. The finest yarn is spun early in the morning before the rising sun dissipates the dew on the grass; or, when this is wanting, and the air is unusually dry, it is notunfrequently made over a shallow vessel of water, the evaporation from which imparts the necessary degree of moisture to the filaments of cotton, and enables the spinner to form them into thread. As a proof of the fineness of the yarn thus delicately spun, Mr. Taylor mentions that one skein which was carefully weighed, proved to be at the rate of 250 miles in length to the pound of cotton. Dr. Watson gives the result of microscopic examinations of French, English, and Dacca muslins, in an elaborate table; and he reports that the diameter of the Dacca yarn is less than that of the finest European: that the number of filaments in each thread is considerably smaller in the Dacca than in the European yarns: that the diameter of the ultimate filaments or fibres of which the Dacca yarn consists is larger than the European: and it appears from the investigation that the superior fineness of the Dacca yarn depends solely on the fact that it contains a smaller number of filaments. These causes, combined with the ascertained result, that the number of twists in each inch of length in the Dacca yarn amounts to 110.1 and 80·7, while in the English it was only 68 8 and 56·6, not only account for the superior fineness, but also for the durability of the Dacca over the European fabric; and as already a very great advance has been made in the spinning of yarn by machinery, it may be possible, perhaps, to raise the standard of quality, both in fineness and strength, to that of Dacca. The manufacture of these very delicate muslins is, however, not confined to Dacca. At Nandair on the Godavery, and at Muktul, Dhanwarum, and Amerchinta, all towns in the Nizam of Hyderabad dominions, and Arnee, near Madras, muslins, which rival those of Dacca, are made in considerable quantities, and are sold in Madras and Hyderabad, as well as supplied to the west and south of India. In these localities, the process of spinning by the spindle is the same as that of Dacca; but as the climate is dryer, the spinners, who are both men and women, work in partially darkened rooms, the floors of which are watered to produce the necessary amount of moisture. The manner of dressing the thread, and weaving it, does not differ from the Dacca system in any great degree: and if the muslins are probably not so fine as those of Dacca, they have an advantage in superior clearness and transparency. The hand-spinning of fine thread used for Brussels lace, according to Mr. Palliser's account of it, is similarly spun by women in darkened rooms. The manufacture of muslins of such qualities as are produced at Dacca, and indeed in Europe, must necessarily be always of a very limited character, and their use confined to very rich purchasers. For the masses of the people, the English manufacturer sends to India the plain and striped dooria, mulmul, 'aghabani,' and other figured fabrics, which have established themselves there, and which, both from their good quality and moderate prices, are acceptable to the numerous classes who make use of them. Some of the chintzes of Masulipatam and of the south of India are as beautiful in design as they are chaste and elegant in colour. Printed cloths are worn occasionally, as in Berar and Bundelkhund, for sarees; and the ends and borders have peculiar local patterns. There is also a class of prints on coarse cloth, used for the skirts or petticoats of women of some of the lower classes in upper India; but the greatest need of printed cloths is for the kind of bed cover called palempore, or single quilts.

In the costlier garments woven in India, the borders and ends are entirely of gold thread and silk, the former predominating. Many of the sarees, or women's cloths, made at Benares, Pyetun, and Boorhanpoor; in Guzerat; at Narrainpett, and Dhanwarum, in the Hyderabad territory; at Yeokla in Khandesh, and in other localities, have gold thread in broad and narrow stripes alternating with silk or muslin. Gold flowers, checks, or zigzag patterns are used, the colours of the grounds being green, black, violet, crimson, purple, and grey; and in silk, black, shot with crimson or yellow, crimson, with green, blue, or white, yellow with deep crimson and blue, all producing rich, harmonious, and even gorgeous effects; but without the least appearance of or approach to glaring colour, or offence to the most critical taste. They are colours and effects which suit the dark or fair complexions of the people of the country; for an Indian lady who can afford to be choice in the selection of her wardrobe, is as particular as to what will suit her especial colour—dark or comparatively fair—as any lady of England or France.

Another exquisitely beautiful article of Indian costume for men and women is the doputta, or scarf, worn more frequently by mahommedan women than hindu, and by the latter only when they have adopted the mahommedan loonga, or petticoat; but invariably by men in dress costume. By women, this is generally passed once round the waist over the petticoat or trousers, thence across the bosom and over the left shoulder and head; by men across the chest only. The Doputta, especially those of Benares, are perhaps the most exquisitely beautiful of all the ornamental fabrics of India; and it is quite impossible to describe the effects of gold and silver thread, of the most delicate and ductile description imaginable, woven in broad, rich borders, and profusion of gold and silver flowers, or the elegance and intricacy of most of the arabesque patterns of the ribbon borders or broad stripes. How such articles are woven at all, and how they are woven with their exquisite finish and strength, fine as their quality is, in the rude handlooms of the country, it is hard to understand. All these fabrics are of the most delicate and delightful colour; the creamy white, and shades of pink, yellow, green, mauve, violet, and blue, are clear yet subdued, and always accord with the thread used, and the style of ornamentation whether in gold or silver, or both combined. Many are of more decided colours—black, scarlet, and crimson, chocolate, dark green, and madder; but whatever the colour may be, the ornamentation is chaste and suitable. For the most part. the fabrics of Benares are not intended for ordinary washing; but the dyers and scourers of India have a process by which the former colour can be discharged from the fabric, and it can then be redyed. The gold or silver work is also carefully pressed and ironed, and the piece is restored, if not to its original beauty, at least to a very wearable condition. The doputtas of Pyetun and indeed most others except Benares, are of a stronger fabric. Many of them are woven in fast colours, and the gold thread—silver is rarely used in them—is more substantial than that of Benares. On this account they are preferred in Central India and the Deccan; not only because they are ordinarily more durable, but because they bear washing or cleaning better. In point of delicate beauty, however, if not of richness, they are not comparable with the fabrics of Benares. Scarfs are in use by every one. Plain muslins, or muslins with figured fields and borders without colour; plain fields of muslin with narrow edging of coloured silk, or cotton (avoiding gold thread), and narrow ends. Such articles, called 'sela' in India, are in every day use among millions of hindus and mahommedans, men and women. They are always open-textured muslins; and the quality ranges from very ordinary yarn to that of the finest Dacca fibres.

The textures of the dhotee, saree and loonghi manufactured in Britain and sent to India, are not that required by the people; nor what they are accustomed to. They are in general too close, too much like calico in fact, which of course makes the garment hot, heavy in wear, and difficult to wash. Again, the surface becomes rough, and, as it is generally called 'fuzzy,' in use, which the native fabric remains free from. Comparatively few native women of any class or degree wear white; if they do wear it, the dress has broad borders and ends. But what all classes wear are coloured cloths; black, red, blue, occasionally orange and green, violet, and grey. All through Western, Central, and Southern India, sarees are striped and checked in an infinite variety of patterns. Narrainpett, Dhaawaram, and Muktul, in the Nizam's territories; Gudduk and Bettigerry in Dharwar; Kolapoor, Nassik, Yeola and many other manufacturing towns in the Deccan; Arnee in the south, and elsewhere send out articles of excellent texture with beautifully arranged colours and patterns, both in stripes and checks. The costly and superb fabrics of cloths of gold and silver (Kimkhab), and the classes of washing satins (Mushroo and Hemroo) even if European skill could imitate them by the hand-loom, it would be impossible to obtain the gold and silver thread unless they were imported from India. The native mode of making this thread is known, but the result achieved by the Indian workman is simply the effect of skilful and delicate manipulation. The gold and silver cloths, kimkhabs, are used for state dresses and trousers, the latter by men and women, and ladies of rank usually possess petticoats or skirts of these gorgeous fabrics. Mushroo and hemroo are not used for tunics, but for men's and women's trousers and women's skirts; as also for covering bedding and pillows; they are very strong and durable fabrics, wash well, and preserve their colour however long worn or roughly used; but they can hardly be compared with English satins, which, however, if more delicate in colour and texture, are unfitted for the purposes to which the Indian fabrics are applied. For example, a labada or dressing-gown made of scarlet mushroo in 1842, has been washed over and over again, and subjected to all kinds of rough usage; yet the satin is still unfrayed, and the colour and gloss as bright as ever. Many of the borders of loongees, dhotees, and sarees are like plain silk ribbons; in some instances corded or ribbed, in others flat.

The manufacture of Cashmir shawls is peculiar to that province. Those formerly issued from that province were exquisitely woven, with unrivalled elegance and chasteness of design, softness and finish in quality, arrangement of colours and use of dyes which the finest Paisley and French shawls do not approach. These exquisite shawls of Cashmir grow rare and rare every year, and their place has been usurped by hand embroidered fabrics of lower value, with more showy and more vulgar patterns. In the Punjab and Dehli, of late years, workmen have commenced to embroider Kashmir cloth and net with floss silk and braid, but solely for sale to Europeans, who wear them as tunics, jackets, scarfs and the like. In the hand worked Kashmir shawls as also in the Dehli work, wooden needles of hardwood are used slightly charred, with a hole in the centre of the needle to receive the yarn.

The Turning-Lathe of India.—The simplest form of the Native Turning-Lathe of India consists of two pegs or pieces of wood driven into the ground, with a short iron peg projecting from each inwardly; these constitute the centres.

When the centres get slack, the pegs, or heads of the lathe as they would be called, are driven a little firmer and further in: or should this not suffice, the pegs are pulled up and driven into fresh ground. The rest consists of a cross piece of wood with a handle like a wooden mattock or coal-rake. This is placed in front of the lathe and steadied by the foot. The work to be turned is spun backwards and forwards by a bow held in the right hand: the tool is managed with great dexterity by the left hand and foot, the rest being steadied by the right foot. The native workman is almost literally quadrumanous, and can make his feet and toes almost as serviceable as his hands and fingers. The lathe costs Rs. 2, and a native workman will turn out on this as much rough work as an Englishman will on the best foot-lathe. The tools mainly consist of short bars of steel sharpened at both ends, each end being used alternately—an old file, or anything else that will cut. They have seldom a good edge, they are set on a fineish-grained sandstone, not capable of making them very sharp.

A better variety of lathe has the two heads coupled together by a bar, and made fast by wedges: the other arrangements are the same in both. From these two, bed-posts and pieces of wood, from a quarter of an inch to eight inches in diameter are turned out. Instead of being painted, the works are lacquered on the lathe by holding on a piece of resin, coloured with some mineral paint. They give in this way, at a most insignificant price, the effect of highly polished varnished work. The lathe with one centre and chuks for turning hollow cups and fancy work, is a much more perfect and highly finished implement than the lathes of two centres. It consists of a strong platform of wood, from two to three and a half inches thick, and one by one and a half or two feet square. The heads are morticed into this: an ironpost secures the spindle end—the other works with a wooden collar and washer. The chuck is fastened on without screwing. Like the other lathes, it is worked with a bow, but the bow itself in this case is a neat and well finished implement. The tools and mode of working are the same, or nearly so, in all. In this lathe, the most beautiful ebony and ivory work is turned with singular neatness and speed; and a native would beat any European with this variety of implement: with celerity they turn off beads, spheres, balls, boxes, backgammon men, and plain chessmen,—for each of which half a dozen of turns seem to suffice.

Fish Oils of India.—The manufacture of Fish Oil is practised all along the western coast: The extreme cheapness of cocoanut, castor, and other vegetable oils, interferes with the productiveness of animal oils. The great source of supply is the shark and the skate: the livers of these are cut out, and thrown into a vat or old canoe, or other receptacle, and trodden on with the feet till the oil is expressed. It is then drawn off, and stowed away: boiling does not seem to be resorted to, as there is little or no muscular fibre, such as that of the blubber, to be got rid of, or aqueous particles to be dispelled. The amount of oil manufactured at each fishing-village will in all likelihood be found very nearly proportioned to the value of the trade in sharks' fins. The oil from the variety of skate called "Wagil" by the natives, seems to have a strong resemblance to the cod liver oil now so much in demand for medicinal uses. On the Malabar Coast, especially off Vingorla, the seas literally swarm with a variety of the sardine from which a coarse ill-smelling variety of oil, which sells for from six to twelve annas a maund, is manufactured; the natives employ it for smearing their boats.

Salt.—One of the most extensive manufactures on the Indian shores is that of Sea Salt, and, simple as the process seems, it is far from devoid of ingenuity or interest. Amongst the numerous islands which fringe the Malabar Coast, there are countless narrow, creeks and inlets, left dry at low tide, the expanse of mud then exposed being often enormous. Off the shores of Sewree the tide at springs retires nearly two miles: and this is nothing at all out of the way in the neighbourhood. When salt pans are proposed to be established, the first thing is to construct a mud embankment,—a foundation for it being selected where the water is never more than four or five feet deep. The crest of the embankment is made to surmount this by two or three feet—the base of it is generally from two to three times its height. Openings are purposely left at intervals in the principal embankments, and from these, at right angles to the main line of the wall, other embankments are run inland, parallel to each other, leaving a current between, large enough to admit of a line of salt boats running up. Immediately behind the embankments, the salt-pans are laid down. These consist of rectangular compartments, from twenty to thirty feet across, and commonly twice as long as they are broad, and from a foot to a foot and a half in depth. They are separated from each other by little mud walls, about three feet across at bottom, and two at top, more or less, according as little channels for filling the pans are meant to be run along them or not. Two, three, or four lines of pans, according to the extent of the back water, are carried along the rear of each embankment—care being taken to leave an area of land capable of being flooded by the sea betwixt the pass and the mainland, three or four times the size of the pans themselves. So soon as the monsoon is fairly over, all the fresh water that has accumulated in the pans or back water is run off, and in November or December, the sea is admitted to the back water through a sluice in the embankment. The pans are now carefully cleaned out, their floors and walls being made smooth and nice. In about a month after it has been admitted to the back water, the sea-water, now getting reduced in quantity, and increased in saltness by evaporation, is let into the pans. The first charge requires about six weeks to evaporate: subsequent charges are dried up in half the time of the first, thus diminishing as the season becomes hotter, and the brine more strong. The strength of the brine is judged of by its becoming red; in fact, a curious variety of a creature, of the volvax kind, the same as is to be found in a fossil state in the Punjaub rock-salt, and which often tinges the waters of our seashores as if stained with blood,—makes it appearance just as the salt is ready to crystallize,—often tinting the salt itself of a fine pinkish hue. When very nearly dry, the salt, which has now accumulated to the thickness of an inch or two, is raked off, the upper portion, which is beautifully white, and almost quite pure, being first taken,—the lower portion, often crystallised in pieces of half an inch cube, is taken up next, —is slightly mixed with clay, and is that generally in use. The white and bluish salt are now piled up separately in conical heaps, about sixteen feet in diameter, and ten feet high, which are preserved with a thick thatching of grass during the monsoon. The white salt is as pure as any in the world—the black salt is mixed with about one or two per cent. of clay. Both are in a great measure free of the magnesian salts and sulphates which contaminate pan-made of Britain;—everything more soluble than muriate of soda remaining behind in solution, is washed away by the rains. Salt-pans are much less efficient when new than afterwards, and they continue to improve as the ground becomes impregnated for ten or fifteen years. When the first crystallisation is unsatisfactory, as it often is, a second charge of brine is let on before the salt from the first is removed. The evaporation in the back water goes on, of course, as rapidly as in the pans themselves, and by this contrivance, which requires no care or preparation, an amount of evaporating surface three or four times that of the pans is secured: the pans themselves only require trouble or attention, the back-water requires none. The pans are drawn from three to four times every year: as the rains approach, they are abandoned for the season. The sea is seldom let in more than once or twice into the back water: were the whole available surface kept covered, double the amount of salt at present manufactured might be made. The supply, however, is so close on the heels of the demand, and the profits are so very low, that there is no reason why production should be extended. Such is the convenience of our shores for the manufacture, and so easily and so cheaply can the process of storing and carrying away be managed, that all the attempts made by Banians to bring salt from Scinde, where it is to be had in unlimited quantity ready made, have proved unremunerative. The idea, therefore, of importing salt from England into India is about as chimerical as any that ever entered the human imagination; while the abuse heaped on the quality of the salt used in India is as undeserved as may be. The upper salt is scarcely surpassed in purity by the finest the Cheshire mines send forth: while the black salt contains as much of the pure muriate of soda as does the common pan-made salt of Britain. The matter which contaminates the former is conspicuous, and looks very dirty, but then it is perfectly harmless: the subtle contaminents of the latter are eminently mischievous, though invisible. An adult native of Britain, is supposed to consume at an average of from fifteen to twenty pounds of salt annually, so that he will in this way swallow some three ounces of mud a year: it will be a long time before the peck of dirt every one is said to have destined for him in the course of his lifetime, be at this rate consumed: in India, numbers of people eat pounds' weight of clay by choice! See Salt Sup. C. of I.

Cements.—The chief cement is lime in its various forms: the only Indian building stones, which differ materially from those of the rest of the world, are laterite, concrete and kunkur; and of each of these a short notice may interest. These rocks are either unknown in the other quarters of the world, or have not hitherto been described by geologists. Kunkur is a limestone mostly nodular—always fresh water and recent,—in most cases in the act of being formed under our eyes. It is sometimes found in thick stratified beds like the travertine near Rome, and seems in this case to have been formed by calcareous springs: more generally it is met with in clay or alluvial soil, in the shape of small pieces from the size of pease or filberts to that of the hand. In the blue clay which stretches along all the western shores, it is found in vast abundance, generally assuming the most fantastic forms—indeed it abounds in every rice-field and open soil all over the country. The more recent varieties seem to be formed by the agency of the rains: when the earth abounds with vegetation, the tepid waters are charged with fixed air and dissolve the lime prevailing in the soil everywhere around,—the mineral being again thrown down as the advancing season dispels the excess of gas. It in this state absorbs the clayey matter around, and cements it into kunkur. This is collected by the lime-burner, placed with firewood in small-sized conical kilns, and burnt in the usual way. It contains 72 of carbonate of lime, 15 of sand, and 11 of clay and oxide of iron. Mixed with half its weight of river sand, it makes an excellent mortar: burnt in pieces of a cubic inch or so in size, and then powdered without slaking, it forms a first rate water cement, setting in a few minutes, and becoming as hard as stone. At Poona the finer varieties of kunkur are burnt with charcoal all throughout the city, in neat pigmy looking kilns 2½ feet high and about as much in diameter at the base. These hold about a cubic foot of material, or about 36lbs. of charcoal and kunkur in equal parts. When burnt, it is slaked and then made up into bricks, which are sold in the bazaar for the purpose of whitewashing.

The finer kinds of lime and cement on the western coast are made from shells, brought chiefly from Rutnagherry. The process of burning is a peculiar one. A piece of ground about ten feet square is laid down even and floored over with clay: an upright pole is placed at each end of this, and a sheet stretched out with back stays spread between the poles, which are steadied with strings. On the floor a bed of shells and rice-chaff alternately, about ten inches thick and eight feet by six, is spread neatly out. Some firewood is placed along the windward side of this, and when the sea-breeze sets in the wood is kindled. As the heat extends to leeward, and the shells become calcined, the limeburners draw off the fore part of them with a stick, and so soon as they have cooled on the floor sufficiently to allow them to be handled, they are placed in a scoop basket and the dirt and epidermis winnowed from them. The shells, now white and pearly, are next thrown into a small sized vat partially filled with water: here they for some time boil from the effects of the heat and slaking. The whole in a short time settles down into a fine semi-fluid mass, which is taken out and slightly dried, and is now ready for use.—See Cement C. of I.

Building Stones.—Laterite rock, a clay iron ore, seems peculiar to India. It covers the western coast almost continuously, and for the most part up to the very foot of the ghauts, and from close to Bombay to Ceylon. It is found in detached beds along the Coromandel coast, near Madras and Nellore, Rajahmundry and Samulcottah, extending into Cuttack. It caps the loftiest summits of the eastern and western ghauts, and some of the isolated peaks in the table land in the interior. It occurs in the Southern Mahratta Country, Mysore, Salem, Coimbatore, South Arcot, the Carnatic, and Tanjore: it is found in Berar, near Oomraoti, a great extent near Beder, in Malwa, and in many parts of Bengal and Ceylon. It fringes the shores of Burmah, Malacca, and Siam, and appears on the coast of Sumatra. It is found in boulders and rolled masses all along the Malabar Coast from Bombay north to Gogo in the Gulf of Cambay, beyond the region of the formation itself. Pieces of it have been met with three hundred feet under the surface, in the blue clay-beds at Calcutta, as also in similar beds of lesser thickness in Bombay, and close by Cambay and Kurrachee: so that the formation at one time was probably much more extensive than at present. Its colour is of a red irony or brick-dust hue, sometimes deepened into dark red. It is marked with whitish stains, and is occasionally cellular or perforated with tubiform holes. It rarely if ever contains either crystals or organic remains, is never stratified or columnar, and generally spreads out in vast sheets on the surface of the plutonic or volcanic rocks. When the upper surface is cleared away, the rock below is found soft and easily cut into blocks of any form. It quickly hardens and darkens in hue by exposure to the air, and is not at all liable to decomposition or injury from the weather. The Arcade Inquisition at Goa is built of it, St. Mary's Church, Madras, and also the old fortress of Malacca. Newbold.—(*Asiatic Soc. Transactions.*)

A curious variety of trap-tuffa, sometimes white sometimes greenish or purple, is found in Bombay and many other parts of India, resembles laterite in the quality of being easily cut when raised, afterwards hardening on exposure to the air. It is used as a building-stone, and suits well for basins, troughs, and aqueducts: it is not very extensively employed.

Littoral-concrete is a variety of rock which has not hitherto found a specific place in the geological catalogues: the name has been conferred on it from its being invariably found close by the sea-shore, and from its resemblance to the artificial stone formed by the cementation of sand, gravel, or other coarse material, by lime-water or mortar. It is composed of the material prevailing on our shores—of shells, sand, gravel, and pebbles, and varies in its character, with the rocks in the neighbourhood,—being micaceous towards Cochin and Tellicherry, from the quantity of sand and other nodules from the granite and gneiss; gravelly to thenorth of Bombay, and around it, composed almost entirely of fragments of shells. Sir Erskine Perry states that this strange variety of rock is to be found all along the Himalayas, and prevails extensively in Southern India. We have not observed it mentioned by any of our geologists, but have no doubt of the correctness of the statement of the Chief Justice. It is to be met [illegible] regions where rains abound. Along the [illegible] of Scinde, Arabia, and the Red Sea, though the material composing it is abundant in a position similar to that in which it exists on the Malabar

Coast, it is nowhere cemented into stone. Even here, indeed, the cementation is far from invariable: in one part of the esplanade we have loose sand on the surface, and concrete beneath: at another, sand or concrete as the case may be, from the surface throughout to the rock: and in a recent excavation, concrete was found for the first twenty feet, resting on a bed of fine sand perfectly loose. It is frequently found to rest—as, for example, at Sewree and Mahim—on a bed of blue clay filled with kunkur and mangrove roots, offering evidence of a depression from the time the mangroves grew at high-water mark, so as to permit the gravel deposit to accumulate. The whole must then have been raised by a second upheaval to its present level. The principal quarries of these are at Versova, about twenty miles to the north of Bombay, where the shore is sheltered by a vast dyke of basalt formerly submerged.

The sand, which seldom extends more than a few inches down, is first removed, and the rock is smoothed on the surface. A space about twelve feet each way is next divided into slabs one foot square,—the grooves between them being cut with a light flat-pointed single bladed pick. These are raised successively by a tool something between an adze and a mattock, a single stroke of which is in general sufficient for the detachment of each from its bed. The blocks thus cut out and raised being thrown aside, the bed is once more smoothed, and the operation resumed till the pit reaches the depth of six or eight feet, when, it being no longer convenient to remove the stones by hand or basket, a new pit is cut. This variety of building material is brought in vast quantities to Bombay where a large portion of the native houses are built of it. It is not very strong, but with the admirable cement employed with a lavish hand, it makes a good and economical wall.

Tools—The Native sledge-hammer employed in breaking trap, granite, limestone, and the other numberless varieties of rock is one of the most efficient tools that can be made use of. Its handle is generally of male bamboo about two feet long: its head is something like that of an ill-shapen axe—thick all long. It weighs about eighteen pounds. In the face or striking portion is a bluntish wedge of steel, fastened in with a piece of leather. With this the native quarryman will break up the most obdurate trap into slabs or blocks of almost any size or form, from a pavement flag three inches thick and two feet square, to a block two feet cube. He looks narrowly at the grain of the stone, and then with a series of blows, of no great force apparently, literally cleaves the stone, which falls in pieces apparently without effort. Similar varieties of this, of exactly the same pattern, are used as hand-hammers—they are called Sootkees.

The blasting, or rather the boring tool, or jumper, is a plain round rod of iron, about three feet long, pointed at both ends with steel. No hammer is ever employed in boring: the jumper is raised and struck in with both hands, and a man will penetrate some inch or two in an hour. Stones are usually paid for to the quarry owners at so much for each jumper at work.

The native punch is a short dumpy lancet pointed tool—it is sharpened by being turned point up, and struck with a piece of flint. When used in stone-dressing, it is held in the left hand, and struck with a hollow-faced iron hammer, the cavity being about an inch in depth and as much in diameter.

In the Deccan the most massy structures are raised, and carved from trap, with a delicacy and correctness quite astonishing. The vaults and domes of tombs and temples are commonly bolted with iron from top to bottom, and in many cases, instead of scaffolding, the structure is surrounded with a rough wall ten or twenty feet off, the interval between being filled up with earth: a long inclined plane serves for raising the stones. A magnificent structure of this sort, the tomb of one of the Gwalior princes, stood half finished near Poona for some thirty years; and here native architecture may be seen in perfection in all stages of advancement. The only building materials at the Bombay presidency, beside that already described, consist of greenstone, trap, and a fine grained variety of nummulite like Bath Oolite,—called, from the name of the place whence it comes, Porebunder stone. Bricks are largely used, all over India, laterite, clay and stone and slabs of coral rock in the Mauritius. In many parts of Bengal, wattle-work is in use.

Since the Indian rail roads commenced, with their great spanning bridges, the rocks of all their neighbourhoods have been largely utilized and buildings formed of the green stones, granites, lime-stones and sandstones are every where to be seen. Throughout the great volcanic district of the Dekhan, the various kinds of greenstone are largely used. Amongst the blue slate formation, along the vallies of the Kistnah and Tumbudra, and the compact limestone formation on each side of these rivers, houses have ever been formed from these materials, but the favourite rock for ornamental purposes in the buddhist and hindu temples of peninsular India is the dark greenstone, often, from its polish being called black marble. The buddhist caves of Ellora, and the smaller caves at Mominabad and Adjunta are excavated out of the green stone and greenstone amygdaloid, at Ellora about twenty in number, in the face of the mountains, almost scarped as it falls into the valley of the Godavery. About a similar number at Adjunta in a ravine near the scarped ghats over Khandesh. Those on the right bank of the Irawady near Prome look on the river.. Large quantities of a whitish yellow sandstone are now brought into Bombay. In Madras and Calcutta, and in India generally, brick is the ordinary building material. In the whole of Burmah and the Tenasserim provinces, the houses are built of wooden planks with shinghed roofs.

Lapidary Operations.—The inferior gems, most abundant and familiar are—the agates, onyxes, cornelians, and bloodstones, of the Raj-Peeplá range, and Cambay cornelians as they are called from the place where they are mostly cut, and from which they are almost wholly brought to Bombay.

The cornelian in the Raj Peepla range is found in a bed of blue clay—the detritus, propably, of the adjoining rocks. Shafts are pierced in this to the depth of from thirty to thirty-five feet, and horizontal galleries run in any direction that suits the fancy of the miner: they are distributed promiscuously, and do not appear to lie in veins or lodes. The galleries seldom exceed a hündred yards in length,—they often run into those of other mines: they are generally five feet in height, and four across. To each mine there are thirteen men attached—they work by turns. Each man must send up so many basket full of earth and stones before he is relieved. The stones are collected in baskets and drawn up by a rope run over a roller or pulley. A group of people await them at the mouth of the shaft, and examine them one after another by chipping each on a piece of stone: the compact and fine-grained are the best, and the blacker the hue is at first the redder it becomes after being burnt. There were in 1832 about one thousand miners employed: and each man carried home with him a basket of stones every evening. They were spread out on the ground, and for a whole year turned over every four or five days to the sun: the longer they are exposed the richer become their tints. In the month of May they are burnt. The operation is effected by placing the stones in black earthen pots or chatties. The pots are placed mouth under, a hole being pierced in the bottom of each; over this is put a piece of broken pot. The pots are arranged in single rows: sheep's dung is the only fuel found to answer: the fire is always lighted at sunset and allowed to burn till sunrise. If any white spots appear on the surface of the pot, the burning is reckoned incomplete, and the fire, continued some time longer. On being removed the stones that have flaws are thrown aside as useless: those not sufficiently burnt are kept for next year's burning, and the remainder are sold for exportation.

Nearly the whole of the stones are cut at Cambay—the greater part of them are made into beads. In the process: the stones are first broken up into pieces of suitable size for the end they are desired to serve. An iron spike is stuck into the ground, point upwards: the stone is placed on this and chipped with a hammer till nearly rounded; it is then passed on to the polisher, who seizes it in a pair of wooden clams and rubs it against a piece of sandstone placed in an inclined plane before him, turning it round from time to time till it assumes a globular form. It is then passed on to the borer and polisher a hole is drilled in it with diamond dust, and the beads are finally polished by being put in a bag with some fine emery and rubbed against each other. An excellent paper on Cambay stones by Captain Fulljames is in the Transactions of the Bombay Geographical Society for 1839. The stones for other uses are sawn or ground down: and for this the native lapidary's tools, are simple and efficient. The wheel consists of a strong wooden platform sixteen inches by six, and three inches thick. In this are two strong wooden uprights. Between these is a wooden roller eight inches long and three in diameter, fastened into a head at the one end. This works on an iron spindle or axle at each end. On the one end the axle is screwed and fitted with a nut, by which the saw or grinding wheel can be made fast. The saw consists of a thin plate of iron,—the cutting material consisting of native emery or ground corundum—koorund as it is called. The lap wheels consist of two circular discs or cakes of lac with ground koorund, coarse or fine according to the work—of a copper disc for polishing, and a wooden one for finishing the work. These are spun backwards and forwards by a bow, the string of which passes round the roller. The lapidary sits on his hams, steadying the wheel with his foot and holding on the stone with his left hand while he works the bow with his right. For very fine work a small sized wheel similar to the British lapidary's wheel, but of smaller size, is used. It is driven by a multiplying wheel, strap and pulley. The Custom-house returns, give the value of the traffic in Cambay stones, at an average betwixt £10,000 and £12,000 annually,—one per cent. of the stones finding their way to Europe.

Cornelians—exports of—value :—

	1844. Rs.	1845. Rs.
China...	73,443	52,653
Singapore	5,352	645
Arabian Gulf	935	18,197
Suez...	——	40
Persian Gulf	2,269	1,257

Calcutta	4,179	4,913
Coromandel Coast ...	——	315
Malabar and Canara...	89	——
Ceylon...	2,536	1,540
Great Britain	100	216
Cutch...	——	28
Kurrachee	——	35
Goa, &c.	53	——
Concan	1,062	——
Guzerat	3,460	2,000
Total Rs...	93,478	88,849

The chief articles into which they are wrought are paper-weights, knife-handles, miniature-sized cups and saucers, tables for snuff-boxes, sets of brooches, necklaces, and bracelets, pins, buttons, and studs. A field gun, with all its appointments, is one of the finest ornamental pieces of Cambay stone work—they sell for from Rs. 40 to Rs. 50. The polish of Cambay stones is not such as pleases the eye of the British lapidary—yet were they sent home in their roughly finished state, they are so cheap that they might be expected to become a considerable article of commerce. They might be built up into mosaics for work tables, into chess-boards, and other elegant articles of furniture—the chief part of the work being performed here, where labour is cheap, the final finish being given at home. The Cambay agates equal the finest "Scottish Pebbles" in beauty; they generally exceed them in size, and may be had for a mere fraction of the price.

		from			
Necklaces, Black and Green,	Rs.	7	to	9	each
Do. Red........................	,,	2	,,	9	,,
Paper Cutters......	,,	2	,,	5	,,
Knife Handles per dozen......	,,	10	,,	15	,,
Stones Brooches............	,,	1	,,	2	,,
Snuff Boxes					
Cups and Saucers............	,,	4	,,	15	,,
Pen Handles....................	,,	12	,,	15	,,
Studs of all sorts, per doz...	,,	1	,,	2	,,
Trowsers Buttons, per pair...	,,	1	,,	2	
Coat do. do. ...	,,	1	,,	2	
[illegible]		[illegible]		1	
Bracelet Beads, of all sorts...		12	as.,	[illegible]	each
Paper Weights,..................	,,	½	,,	5	,,
Tables of Sizes..................	,,	15	,,	50	,,
Guns do.	,,	35	,,	85	,,
Earrings per pair..............	,,	1	,,	5	,,
Finger Rings..................	,,	8	as,	1½	,,

Stone-Cutting.—The seal engravers tools. The wheel consists of a slight frame ballasted below to keep it firm, with two uprights about eighteen inches in length and eight inches between. Betwixt the two is a small spindle. This turns at the one end on a screw or pivot; sometimes of cornelian: the shoulder is kept in its place by a neat iron clamp—it is steadied by a piece of rag wrapped round it and enclosed in the collar. Why so much pains should be taken to diminish friction by a cornelian pin at one end, while it was increased by this at the other, we cannot explain. A dozen or two spindles such as this are made use of. The spindle is terminated by a small spike of iron of about an inch long, ending in a little circular saw or button, from a tenth up to half an inch in diameter. To this, emery paste—that is, powdered corundum mixed with oil—is from time to time applied, while it is spun round with a bow. The engraver holds the seal up betwixt his fingers and thumb, and a sweep or two of the bow causes a mark on the seal. This is deepened and extended as desired—the larger discs being employed for long straight strokes. The work turned out is by no means very fine, but the celerity of execution is surpassing. Diamond dust is very rarely used in India,—corundum, koorund, or samda stone as it is called, being the chief material employed in polishing gems, marbels, and metals. This mineral is found chiefly in granite or the detritus of granite rocks in the Mysore country and in the neighbourhood of the south-western ghauts. It is brought in considerable quantity to Bombay, and is occasionally exported to Europe. It is packed in orange-shaped parcels with meridional cordings: the pieces are from the size of filberts to that of the hand: they are generally amorphous or fragments of crystals, often contaminated with felspar, mica, and other granitic minerals. Sometimes fragments of crystals perfectly pure are to be met with weighing from ten to twenty-five pounds, but these are rare. Though excessively hard, it is by no means tough—it flies in pieces after a few strokes of the hammer, and is easily pulverized in a mortar. The natives generally beat it on an anvil or stone, keeping it from flying about by a collar or cotton rope. The fine particles are separated from the coarse by sifting—we are not aware that the home process of lixiviation is resorted to. For sharpening swords or burnishing metal it is generally used like a whetstone or burnisher; for polishing gems, it is either made up into a cake with lac or into a paste with oil or grease. It is never employed for a manufacture of emery paper or anything resembling it. For polishing marble or other stone it is used in two forms: the first of these is a cake of about eight inches long, three across, and two deep. This is used by an individual in the hand. For heavier purposes, a cake a foot square or so is employed, placed in a frame. Two men work at this, and the reducing process is very rapidly accomplished by it: it is in fact a file with a lac body and corundum teeth. The diamonds seen in such abundance amongst native gentry are almost all cut in England, and the principal gems used in India are the lapis lazuli, rubies, emeralds, opals, garnets, and the whole family of siliceous gems.

Potstone—Is found in various parts on the western coast of India : it is chiefly prevalent at Turreva Carey in the Madras presidency, and in the ghaut country from betwixt the Phoonda and Ram Ghauts. It is called Bellapum by the natives : it was known to the Romans, and is described by Pliny as used in the manufacture of vessels for culinary purposes—hence its name. The mineral possesses a glistening pearly lustre and greyish tint : it contains 49 per cent. of silica, 30 of magnesia, and 6 of alumina. The stone is prepared for use by reducing it to something like the form, size, and shape desired, by a cleaver, a paued hammer, or strong knife. When a cavity is meant to be circular, it is bored out by being held against the working spindle of a single-centred native lathe. This enables them to be held on by the chuck, when they are chucked and finished in the lath in the ordinary way. Potstone speedily hardens and darkens by exposure to the air: it absorbs grease, oil, or fatty matter, freely : it is stronger than ordinary earthen-ware, stands heat better, and is pretty extensively used for culinary purposes. That sold in the Bombay bazar is mostly brought from Goa.

Shark-fishing at Kurrachee.—There are many large boats, with crews of twelve men each, constantly employed in the shark-fishery at Kurrachee. The value of the fins sent to Bombay varies from Rs. 13,000 to Rs. 18,000 a year. Of this a portion only passes directly into the hands of the fishermen, each boat earning perhaps Rs. 1,000 annually, or Rs. 100 for each man. From this falls to be deducted the cost of material and other charges. Shark-fins sell in China at about $32 per picul, or £6 per cwt. In the market of Macassar the ordinary price is from $15 to $16, or from £2-10s. to £3 per cwt. This trade, was noticed by Dr. Royle (on the Production of Isinglass.—London, 1842,) in 1842. It affords on some occasions to Bombay alone as much as four lacs of rupees—£40,000—taking fish-maws and shark-fins together,—and furnishes the chief means of support to at least three thousand fishermen or, including their families, to probabaly not less than fifteen thousand human beings. One boat will sometimes capture at a draught as many as a hundred sharks of different sizes : sometimes they will be a week, sometimes a month, without securing a single fish. The fishermen are very averse to revealing the amount of their captures : enquiries of this sort are supposed by them to be made exclusively for the purpose of taxation. The great basking shark, or mhor, is always harpooned : it is found floating or asleep near the surface of the water, and is then struck with a harpoon eight feet long. The fish once struck is allowed to run till tired, and is then pulled in and beaten with clubs till stunned. A large hook is now hooked into its eyes or nostrils, or wherever it can be got most easily attached,—and by this the shark is towed inshore : several boats are requisite for towing. The mhor is often forty, sometimes sixty, feet in length ; the mouth is occasionally four feet wide. All other varieties of shark are caught in nets in something like the way in which herrings are caught in Britain. The net is made of strong English whipcord, the mesh about six inches : they are generally six feet wide, and are from six to eight hundred fathoms,—from three quarters to nearly a mile, in length. On the one side are floats of wood, about four feet in length, at intervals of six feet ; on the other, pieces of stone. The nets are sunk in deep water from eighty to one hundred and fifty feet, well out at sea : they are put in one day and taken out the next, so that they are down two or three times a week, according to the state of the weather and success of the fishing. The lesser sharks are occasionally found dead,—the larger ones much exhausted. On being taken home, the fins are cut off and dried on the sands in the sun : the flesh is cut up in long stripes and salted for food, and the liver is taken out and crushed down for oil. The head, backbone, and entrails, are left on the shore to rot, or thrown into the sea, where numberless little sharks are generally on the watch to eat up the remains of their kindred. The fishermen themselves are only concerned in the capture of the sharks : so soon as they are landed they are purchased by Banias, on whose account all the other operations are performed. The Banias collect them in large quantities, and transmit them to agents in Bombay, by whom they are sold for shipment to China. Not only are the fins of all the ordinary varieties of sharp prepared for the market, but those also of the sawfish, of the cat-fish, and some of varieties of ray or skate—the latter, indeed, merges almost insensibly into the form of the shark. The cat-fish, known in India by the same name as in Britain, has a head very like that of its European congener, from which it differs in all other respects most remarkably. Its skin is of a tawny yellowish brown, shading from dark brown on the back to dirty yellow on the belly : it is beautifully covered all over with spots, of the shape and size of those of the leopard, similarly arranged. The value of sharks' fins annually exportde from Bombay amounts to betwixt a lakh and a half and two lakhs of rupees : the largest fishery at any given port is probably that of Kurrachee, which affords nearly one-tenth of the whole, but the shark-fishery is conducted all along coast coast. The fishermen along these coasts are divided into four great castes, over each of which a head man or jemadar presides. 1, Wayttce ; 2, Son-kolie ; 3, Don-gur-kolie; 4, Thankur-kolie. One great jemadar, or chief, rules supreme in the craft over all the fisher castes.—(*Bombay Monthly Times, from* 11*th to* 24*th May* 1850.)

Bombay Fisheries.—The Bombay fishing boat is one of the swiftest and most elegant sea-going vessels of that Coast. A complete set of models of the native vessels plying on the coast, at an estimated price of Rs. 15 each, or about Rs. 1000 in all, was sent to the Exhibition of 1851, The mode of building is, precisely the reverse of that pursued by Europeans who begin with drawing the lines, then lay down the keel, ribs, and frame, and finally apply the planking. In India drawn lines are dispensed with altogether:—having laid down the keel the Indian Shipbuilders fasten on the planking, leaving the ribs and frame to the last. The keel having been laid, and the stem and stern-posts put in their places, they are fashioned in both sides with a grove. The lower edge of the plank next laid is made to conform in shape to this. The under grove is smeared over with red ochre and water, and the edge of the plank that follows tried on from time to time till it takes a tinge everywhere, showing with what exactness it coincides. It is then steeped in water and bent over a fire of wood into the proper shape and applied to its place. When all is ready, the channel in the lower plank is filled up with cotton and tar. The two planks are now sewed together in the following manner; a pair of holes are bored in the upper and a corresponding pair in the lower plank, all along at intervals of a foot or two, according to the nature of the lines; a strong coir string is laced through this in the form of the letter X, the knot being inside. A stout wedge of wood is next driven through the strings outside, so as to bring the planks perfectly in contact. The planks being put sufficiently in their places, when gunwale high is attained, the timbers are put in; when the planks have been nailed to them, the sewing holes are filled up either with nails when opposite a timber, or with wooden pins. The Bombay fishing-boats can beat the best of the English yachts; the masts rake forward instead of back—the keel is hollow in the middle and not so long as the stern-post,—the forepart of the boat sharp, with hollow lines, the stern plump and round. There are three great fishing villages in Bombay,—Worlee, Sewree, and Mahim, At Worlee there was, in 1850, one pattimar, worth about Rupees 3,000, employed in carrying cargo and in general business. There are 110 fishing-boats, worth about Rs. 350 each, and 45 canoes, worth from Rs. 40 to Rs. 60 each. At Sewree there are five large boats, worth about Rs. 1,000 each, employed in carrying bricks and tiles from Salsette to Bombay; one pattimar, worth about Rs. 3,000, employed in general trade; 25 fishing-boats, worth about Rs. 350 each; and 50 canoes. There are, besides, some 20 middling-sized boats, used in the transport of chunam and of black sand from Bellapore for building and other purposes. At Mahim and in the creek on to Sion there are 7 fishing boats, 10 large chunam boats, 10 small, together with 25 canoes. The fishermen of Small Colaba own no more than 16 fishing-boats and 8 canoes. A pattimar employs from 15 to 20 men, a fishing-boat from 10 to 15, a canoe from 3 to 4. Canoes are chiefly employed in the coast-fishing and attending the men on the mud banks, and in landing cargo when there is no depth of water sufficient for larger vessels. They are hollowed out of a single log, and are very serviceable handsome-looking well-finished craft. They are impelled either by paddles or sails: when the latter are employed, an outrigger is resorted to: they will bear a surprising stretch of canvas, and make their way rapidly through the water.

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Hooks and lines are scarcely ever used on the western shores,—nets of various forms and sizes being alone almost employed in catching fish. The most important and extensively practised variety is the stake-net fishing,—and stakes are often to be found thirty and forty miles out at sea—wherever, indeed, a bank within half a day's sail of land presents itself: the fishermen are quite enterprising enough to extend their operations to any distance, but there is no use in their going further off than they can return with their fish to the market fresh. The fishing stakes vary from 50 to 150 feet in length: they are built up in the following manner of successive pieces of wood,—the lower being frequently the long straight trunk of the cocoanut or palmyra tree. As many as five or six pieces of wood, from eight to ten inches in diameter, are used in the construction of a single stake. They are scarfed across each other, the scarfing being from three to five feet: the pieces are fastened together by strong rectangular fillets of wood.—Two or three boats are employed in towing the stake out to sea. Its point is made wedge-shaped—there is a hole near the point of the wedge, through which a rope is passed. The two ends of the rope are made fast to boats anchored at a considerable distance off: other boats now proceed and haul up the upper end of the stake till the point is found to descend by its own weight. When it has at once caught hold of the mud the rope is released from its lower end, and the boats to which it was attached employed in steadying the top in the direction of the run of the tide. At high water two boats are made fast, one on each side, to the top of the stake, which is forced by their weight ten or twelve feet into the mud. Stakes are thus put in successively, often to the extent of some miles at intervals of twenty feet from each other. Betwixt each pair is extended a long purse-net, the circumference of the mouth of which is about sixty feet, so that when attached to the stakes it exhibits an aperture twenty feet across, and ten feet perpendicularly—the upper edge being a little above high water. The purse is from 100 to 170 feet in length, terminating in a point. The meshes gradually diminish in size from the mouth to the further extremity being about six inches at the former, and three-fourths of an inch at the latter. The fish are carried into this by the tide, and entrapped—boats are always in waiting at high and low water, to secure the capture and reverse the nets. In the creeks and shoals lines of stakes and nets, often several miles in length, are run along where the sludge is exposed at low water. The upper edge of these is considerably under high water mark, and the fish are in consequence entrapped by them on the retirement of the tide : breaks are left at intervals to secure their admission. Close along shore, fishing grounds, about half an acre in area or so, and in a semi-circular form, are built. An aperture is left in the extremity of each of these, into which a net is placed as the tide begins to recede, and a considerable capture of the lesser sized fish secured. Such are the fixed implements of the fisherman : the most frequent of the moveable implements is a conical net, of which the lower lip is loaded with pieces of lead and turned up inwards. The material of which it is made is fine twine, and the meshes small. It is from eight to twelve feet in diameter, and is only used in shore. The fisherman holds it by the top, while he gives it a quick twirl, something betwixt that given to the American lasso and common quoit. Throwing it to the distance of some yards, it spreads fully out as it reaches the water—when pulled down and collapsing by means of the lead, it closes at the mouth as it approaches the bottom. The fisherman now approaches and pulls it up by the apex, when the fish are found entrapped in it. Though this net sometimes attains a weight of sixty pounds, the dexterity with which it is thrown is wonderful. There are various spoon and purse nets of different shapes and sizes, and a bag of muslin on a hoop about three feet in diameter, this last being employed to catch the young prawns, and smallest sized fish, that would escape through any mesh however fine. There is also a long trail-net, with which the fishermen wade neck deep through the water, but the mode of using it does not appear to be in any way peculiar or interesting. The mud banks and shoals in the creeks abound in eels, sometimes reaching the length of two or three feet. The fishermen wade through the mud till they detect these by the bubbling up or disturbance of the water. They then strike them with a harpoon or spear and about two inches each way, with a fine bamboo shaft eight or ten feet in length. Having pinned them against the ground they draw them out with a hook about the same size as the spear, also on a shaft. They are very dexterous in catching the little fish or crabs which lurk under the stones close by the shore, with their hands without the use of any instruments at all : the crabs when caught are immediately stripped of their claws, and so prevented from getting away. Of these there are a wonderful variety on the shores, many of them of the greatest beauty. The fisherman's mooring anchor is generally of stone, from four to five feet in length, four-sided and pyramidal—the apex cut off. At base it is from six to eight inches square, and from four to six at top. Through the top is a hole, through which a cable or hawser passes. Near the base are two holes at right angles to each other ; through these, pieces of wood are thrust corresponding to the prongs or flukes of the anchor. The whole weighs from 80 to 150 lbs., according to the size of the vessel, and answers very well the purposes intended. These anchors are most commonly made of limestone, and are on the whole most suitable.

The fishermen are a strong-made race of men, and are the only labourers in India amongst whom a great degree of obesity is observed,—every fourth or fifth fisherman to be met with being more less corpulent—some of them very much so indeed. They are much given to the use of intoxicating drinks, and are often to be met with in a state of inebriety. They regulate their affairs very much after the manner in which they are regulated by those of kindred professions in other parts of the world. A set of boats and nets belong to a dozen of fishermen, one often advancing the capital required to be contributed by the others ; the capture is divided amongst them on their reaching the shore, and is immediately taken charge of and carried to market by the women, who carry their baskets, not, as in Britain, on their backs, but on their heads. The men when so employed carry theirs in baskets swung at the opposite ends of a bamboo across the shoulders. The women who carry the fish to market are commonly followed by ten or a dozen crows, who constantly watch for anything that may escape, every now and then making a dash at the basket itself.

The mode of making ropes and nets is singularly simple : coir is the material used for the former, cotton or hemp for the latter. One man sits on the ground and lets out the yarn ; another retires half bent, and spins it by means of a spindle,—the yarn being passed through a wooden hoop hung round his neck. He gives the spindle a jerk betwixt the palms of his hands, and keeps its motion up at a very considerable degree of speed indeed. When several piles of fine yarn are to be twisted together, a man with a spindle is placed at the end of each. The whole series are supported at intervals by frames of bamboo: a spinner at the further extremity twists all the strands into one, while a light piece of board is being passed along where the cords are meant to be hard plaited and strong, to keep them from running too rapidly together. In the case of ropes, after the single strands are laid together, the rope is made up by men twisting the larger strands by a stout piece of wood,—a much stronger and longer piece being used for the entire rope, a man sitting by a board with holes through which the several strands pass, to see that all go properly together. To see forty or fifty fine powerful men busily employed in the evening in sewing a cord betwixt each of the cloths of a sail—the sails of a pattimar being often from seventy to ninety feet wide,—with the accompaniments of swarthy dames and children,—boats of the most picturesque forms,—palm trees or an old Mahratta fort in the distance, and fishing tackle every where around,—is frequently highly picturesque; the sight being much more pleasing than the smells which accompany the scene.

The great Irawady river and the seas in which the Mergui and Eastern Archipelagos are enclosed, abound in fish, and the Malays shoot their great skate nettings far into the ocean. The wealth of these eastern rivers and seas is boundless, and we have seen a single Burman in a small canoe, in an hour in the morning capture seventy fish, each between one and two feet long.

Bombay or Mooltan Work.—The inlaid work of ivory, white and dyed, ebony or other coloured woods, for which Bombay has long been famous, is said to have been introduced from the Punjaub, and is still familiarly known as Mooltan work. It consists chiefly of paper-cutters, work-boxes, writing-desks, and other similar articles. The effect of a large mass of it is very poor—the pattern is too fine for being distinguishable, and it fills the eye with a general greyish tint: in articles which do not present more than a foot or two of surface, it is very pleasing. The ground of the inlaid pattern is generally scented cedar or sandalwood, the joinery exhibited in which is very indifferent. The inlaying material is prepared as follows; the wood or ivory is cut into slips of a lozenge or triangular section as may be required—by a long thin-bladed fine-toothed saw. The tin is drawn through betwixt a pair of grooved rollers like those used for laminating or extending iron—they work together by teeth at the extremity: one or two draws through extend the metal into the length desired. The wires and splints are nearly all either lozenge-shaped or triangular, the triangles being equilateral, the lozenges composed of two equilateral triangles. A pattern being fixed on, the splints are built up into pieces, about eighteen inches long, and from a quarter to two inches in thickness, firmly glued together. In the case of borders, or continuous pieces of work, the rods are glued together betwixt pieces of ivory or wood and ivory, alternately, so as to form straight lines on each side of the pattern. When about to be used they are sawn across, the thickness of a sixpence, and arranged in a box divided into compartments, something like a printer's *case*. They are then picked up in succession, and applied with glue to the box or other article to be inlaid. The following is a list of the prices of some of the most common articles to be met with in the bazar:—

Work Boxes, of sizes, from ...	Rs.	8 to 80
Writing Desks of do. from ...	„	15 to 60
Portfolios, of do. from	„	10 to 20
Watch Stands, from...	„	8 to 10
Do. Cases, from..	„	4 to 6
Envelope Cases, from	„	15 to 25
Baskets, of sizes, from	„	6 to 25
Cheroot Cases, from	„	3 to 4
Card Cases, of sizes, from ...	„	2 to 5
Paper Weights, from	„	3 to 4
Paper Cutters, from...	„	[illegible]
Baskets, open work, from ...	„	12 to 15
Table Trays, from	„	10 to 15
Pin Cushions, from	„	3 to 4
Ink Stands, from	„	10 to 15
Jewel Boxes, of Sandal Wood, from	„	20 to 50
Paper Stands, of Sandal Wood, from	„	5 to 10

Blackwood or Rosewood Furniture.—In the Bombay Furniture manufacture, blackwood is the material almost always employed—it is brought from Cochin and other places lower down on the Malabar Coast. It sells for about the same price as teak—it is a brittle, opened-grained wood not at all a favourite with cabinet-makers at home, and the highest prices ever realised for it in the state of log were about £10 per ton. The principal furniture dealers in Bombay, when this was written in 1850, were Parsees; the workmen they employ are mostly from Guzerat. The pattern meant to be carved is first carefully drawn on paper—then on the wood. The tools used are the native adze, chisel, and drill—the centre-bit and other tools of English pattern, from which so much assistance might be obtained, are never resorted to. The general design of the various pieces of furniture is mostly excellent, the patterns elegant and tasteful: the finish for the most part is poor,—the joinery always execrable. Concealed joints never seem to be thought of—pins which might be kept out of view are made as conspicuous as possible, and great clumsy screw nails, which might without trouble be hid, are fully exposed to view. Considerable quantities of blackwood furniture are sent to England annually by residents in Bombay for their own after use, or for the service of friends; it is packed up without being jointed or polished, and is put together by English workmen, who think, we believe, but lightly of its merits. There were then six principal furniture shops in Bombay. They keep from five to ten workmen each, and probably turn out Rs. 25,000 to Rs. 30,000 worth of furniture amongst them annually. The following are the prices of the principal articles manufactured:—

Round Table, from 3 to 8 feet in diameter ...	Rs.	30 to 80
Round Teapoys, 2 feet ditto, per pair ...	Rs.	16 to 25
Card Tables... ...per pair.	„	50 to 60
Flower Stands ... do	„	50 to 100
Pier Tables... ... do	„	100 to 150
Conversation Sofas ... do	„	100 to 150
Sofa Couches ... do	„	140 to 200
Music Book Cases ... do	„	30 to 140
Easy Chairs, each	„	10 to 50
Low Chairs, each	„	25 to 50
Drawing Room Chairs, with damask cushions ...	„	5 to 10
Dressing Tables, each ...	„	8 to 75
Side Boards, each... ...	„	35 to 70
Screens, each	„	20 to 75
Wardrobes, each	„	45 to 75
Clothes, Presses, each ...	„	25 to 40
Bedsteads, each	„	50 to 200
Writing Tables, each ...	„	50 to 100
Bed Room Couches, per pair	„	40 to 60
Chiffoniers, each	„	60 to 80
Sofa Tables, per pair ...	„	60 to 90
Dining Table, in pieces...	„	40 to 50
Chests of Drawers. each...	„	25 to 50
Music Stands, per pair	„	30 to 50

Oil Manufacture.—The number of vegetable oils in India, is very great indeed, and there are two forms of the native oil-mill: one of these will be found described under sugar-making, it being used alternately as an oil or sugar-mill—the other, of which there are some varieties, is a simple wooden mortar, with revolving pestle, and is of wood or stone—generally granite. Two oxen are harnessed to the geering which depends from the upper end of the pestle—a man sits on the top of the mortar, and throws in the seed that may have got displaced. The mill grinds twice a day,—a fresh man and team being employed on each occasion. When sesamum oil is to be made, about seventy seers measure, or two and a half bushels, of seeds are thrown in: to this ten seers, or two quarts and three quarters of water are gradually added: this, on the continuance of the grinding, which lasts in all six hours, unites with the fibrous portion of the seed, and forms a cake, which, when removed, leaves the oil clean and pure at the bottom of the mortar. From this it is taken out by a cocoanut shell cup on the pestle being withdrawn. Other seed oils are described by Buchanan as made almost entirely in the same way as the sesamum. The exceptions are the erindi or harulu, or castor oil, made from either the small or large varieties of the ricinus. This at Seringapatam is first parched in pots containing something more than a seer each. It is then beaten in a mortar and formed into balls: of these from four to sixteen seers are put in an earthen-ware pot, and boiled with an equal quantity of water for the space of five hours—frequent care being taken to stir the mixture to prevent it from burning. The oil now floats on the surface, and is skimmed off pure.

The oil-mill made use of at Bombay and to the northward, at Surat, Cambay, Kurrachee, &c., differs a little from that just described, in having a very strong wooden frame round the mouth of the mortar: on this the man who keeps the seeds in order sits: in Sind a camel is employed to drive the mill instead of bullocks. Castor oil seed is thrown into the mill like other seeds, as already described:—when removed the oil requires to be boiled for an hour, and then strained through a cloth to free it of the fragments of the seed.

The great oil on the seaboard of India is that yielded by the Cocoanut Palm. The nut is first stripped of its husk, this furnishing the substance from which coir rope is made, while the shell is broken, and the copra, or fatty lining, enclosing the milk, is taken out. This is called copri or copra. Three maunds or ninety pounds of copra are thrown into the mill with about three gallons (eleven cutcha seers) of water, and from this is produced three maunds, or seven gallons and three quarters, of oil. The copra in its unprepared state is sold slightly dried in the market: it is burned in iron cribs or grates on the tops of poles as torches in processions, and as means of illumination for work performed in the open air at night. No press or other contrivance is made use of in India for squeezing out or expressing the oil from the cake, and a large amount of waste in consequence of this necessarily ensues. The sandalwood, grass, and other essential oils employed in medicine, is differently conducted.

Tanning.—Leather is one of the manufactures where, with an unbounded quantity of raw material, the results are most unsatisfactory; with an unlimited supply of hides and first-rate bark, the goods turned out by natives of India, are of the worst possible description. The raw hides on first being received are steeped in stone vats for betwixt four and five weeks in a strong pickle of salt and water—from ten to fifteen hides are placed in each vat. While steeping, a pint or quart of the milk bush *Euphorbia tirucalli*—is thrown into each vat. It contains a considerable quantity of elastic gum, and is used for water-proofing leather, and rendering cords elastic. In February and March, Parsee women are to be seen with various male attendants wherever the milk-bush prevails. They apply the milk to their bodies and limbs, and then stick themselves over with tufts of raw cotton. It produces a hot and slightly prickly feeling and a small degree of blistering. It is considered good for the health, and is supposed to ensure fecundity: the exhibitions seen at this season in applying the milk, are often indelicate in the extreme. Dr Heyne (Tracts, Historical and Statistical, on India, &c., vol. I, page 46, Lodon 1814) states that the Morocco manufactured at Hurryhur is treated with salt, and a mixture of water, and the milk of wild cotton, (*Asclepias gigantica*), but he neither explains its qualities nor the function it performs in tanning. The stench arising from the vats is at this time abominable: the epidermis is now decomposed, and the hair comes freely away. The skin, being cleared of this, is next immersed in a decoction of mangrove, babool, or other tanning bark: after remaining some time in this they are taken out and sewed up so as to form a sack, and are then suspended from the roof of the building, or from a cross pole and are filled with fresh tanning solution. When the process is completed they are taken down, the stitches out, and the skins dried. The leather is soft and flexible, and looks tolerably well—but it resists the rain indifferently, is easily penetrated by wet, and during the S. W. monsoon becomes as moist and flexible as paper dipped in water. When set aside it becomes mouldy, and very easily rots. Buchanan gives the following as the method of tanning practised at Bangalore:—For each hide of ox or buffalo take two seers of quicklime and six seers of water: in this keep the skins a week, when the hair may be rubbed off. Keep the hides four days in a solution of unpeeled sticks of Tanggadu (*Cassia auriculata*,) in ten seers of water, for an equal length of time: add the same solutions as before—then stretch and dry the hides. The leather is very bad. (Tracts, Vol. i. p. 223.)

In many parts of the country, the hides are so removed as to form a bag, into which the tan is placed, and the filled bag kept suspended for several weeks.

Distillation.—The principal matters distilled from in India are Toddy, Dates, Sugar, Rice, Mahwa flowers, barks, cereals, and substances yielding perfumes. The Bombay Toddy or Arrack still is a most simple and clumsy contrivance. The still consists of a large earthern jar, of the shape of that used by water-carriers, but many times more capacious. The receiver is of the same form and material as the still, but somewhat less in size,—the former being two and a half, the latter one and a half feet in diameter. The still mouth is plugged up with a piece of wood luted with clay—a hole is cut in the side of the still near the top, and into this is fastened a wooden spout, which conveys the spirituous vapour to the cooler. This last stands on a trestle or frame of wood, placed over a pit for holding water, and cooling is effected by a man lifting successive fills of water from the well in a cocoanut ladle, and pouring it on the top of the cooler. A vessel of water with a small spout or drip is occasionally resorted to. A cocoanut tree will yield about four seers of toddy or sap a day: seventy-five seers of toddy or the produce for one day of eighteen cocoanut trees, furnish a charge for a still, yields twenty-five seers of liquor on a first distillation—on the second it affords eight seers of liquor considerably under proof, the process of distillation just described is nearly as unskilful as can be, and a third, if not a half, might be added to the returns were a little [illegible] care and attention bestowed on the matter.

Date and palmyra trees yield toddy as well as cocoanuts. A strong liquor, called mawah, is in pop[illegible]ute amongst the natives, especially [illegible] from [illegible]es, in Western India. The following pro[illegible] employed in making it at Surat. The berries of the mawah are about the size and form of marbles: they are first steeped or mashed in casks. So soon as they get into a state of active fermentation, the fermented liquor is drawn off and carried to the still, and more water poured over the berries, successive charges being added as long as the worts are strong enough to ferment. A sufficient number of casks, or mash tuns as they may be called, are employed in the work so as to permit a charge of the still to be supplied on each drawing off from the fermenting tuns: as it takes a couple of days to complete the process of fermentation, but worts already drawn off would sour were this to be waited for before the first run was run off. The still consists of a wooden tub, with a copper bottom, built over a surface of brickwork:—over the mouth of this is placed a huge copper saucer, the centre of the bottom terminating in a nipple. This is placed over the mouth of the tub which contains the liquor, and is fitted tight after the still has been charged: it is then filled with cold water, a fresh supply of which is poured into it from time to time as the original fill gets heated. A bamboo spout passes through the side of the tub just above the level of the liquor inside—it terminates in a flat shovel or ladle shaped dish under the nipple. Into this the spirit condensed in the under side of the saucer trickles down—it is run off and removed into a suitable receptacle outside. A second or third distillation is resorted to when the liquor is required to be made very strong.

The Portuguese in India for the purpose of rectification use a very neat and serviceable variety of still, by them called an alembic. It consists of a common cooking pot as a boiler, with a cylindrical head of the same diameter, and generally about the same depth, as the boiler. The bottom of this is a cone closed in at the apex, the mouth of which covers that of the boiler. Around its inner edge is a slight turned up ledging or flange, from which a pipe or worm leads off the spirit. The cylindrical portion of the top being filled with cold water, the spirituous vapour is condensed by it in the inside of the cone, and, trickling down, is caught by the flange and carried off by the pipe. This is a convenient and serviceable implement, and may be so used to give very excellent results.

Otto of Roses. Rose Water.—A description of the manufacture of rose-water and otto of roses, is given in the 8th volume of the Transactions of the Bengal Asiatic Society, by Dr. Jackson, Ghazeepore :—

" Around the station of Ghazeepore there are about 300 beegahs, or about 150 acres, of ground laid out in small detached fields as rose gardens, most carefully protected on all sides by high mud walls and prickly pear fences, to keep out the cattle. These lands, which belong to zemindars, are planted with rose trees, and are annually let out at so much per beegah for the ground, and so much additional for the rose plants—generally five rupees per beegah, and twenty-five rupees for the rose trees, of which there are 1,000 in each beegah. The additional expense for cultivation would be about 5-8 ; so that for Rupees 30-8 you have for the season one beegah of 1,000 rose-trees.

" If the season is good this beegah of 1,000 rose trees should yield one lac of roses. Purchases for roses are always made at so much per lac. The price of course varies according to the year, and will average from 40 to 70 rupees.

" As soon as the roses come into flower the Zemindar and cultivators of the rose gardens, as well as intending purchasers, meet in the city, and according to the demand and expected produce, a *nerick* or selling rate is established, and purchasers then enter into agreement with the cultivators for so many lacs of roses at such a price. This agreement is considered binding, and the cultivator is obliged to deliver the quantity at the contract rate ; when that is completed another can be made, but this latter is always at a much higher rate.

" The rose trees come into flower at the beginning of March and continue so through April. In the morning early the flowers are plucked by numbers of men, women, and children, and are conveyed in large bags to the several contracting parties for distillation. The cultivators themselves very rarely manufacture.

" The native apparatus for distilling the rose-water is of the simplest construction ; it consists of a large copper or iron boiler well tinned, capable of holding from eight to twelve gallons, (shaped like the earthen hoondahs in which the Gomastahs send in their opium) having a large body with a rather narrow neck, and a mouth about eight inches in diameter ; on the top of this is fixed the head of the still, which is nothing more than an old degchee, or cooking vessel, with a hole in the centre to receive the tube or worm.

" This tube is composed of two pieces of bamboo, fastened at an acute angle, and it is covered the whole length with a strong binding of corded string, over which is a luting of earth to prevent the vapour from escaping. The small end, about two feet long, is fixed into the hole in the centre of the head, where it is well luted with flour and water. The lower arm or end of the tube is carried down into a long necked vessel or receiver, called a *bhubka.* This is placed in a hundee of water which, as it gets hot, is changed. The head of the still is luted on to the body, and the long arm of the tube in the *bhubka* is also well provided with a cushion of cloth, so as to keep in all vapour. The boiler is let into an earthen furnace, and the whole is ready for operation.

" There is such a variety of Rose-water manufactured in the bazaar, and so much that bears the name, which is nothing more than a mixture of sandal oil, that it is impossible to lay down the plan which is adopted. The best rose-water however in the bazaar may be computed as bearing the proportion of one thousand roses to a seer of water ; this perhaps may be considered as the best procurable. From one thousand roses most generally a seer and a half of rose-water is distilled, and perhaps from this even the attar has been removed.

" The boiler of the still will hold from eight to twelve or sixteen thousand roses. On eight thousand roses from ten to eleven seers of water will be placed, and eight seers of rose-water will be distilled. This after distillation is placed in a carboy of glass, and is exposed to the sun for several days to become puckah ; it is then stopped with cotton, and has a covering of moist clay put over it ; this becoming hard effectually prevents the scent from escaping. The price of this will be from twelve to sixteen rupees. This is the best that can be procured.

"To procure the attar, the roses are put into the still, and the water passes over gradually as in the Rose-water process; after the whole has come over, the rose-water is placed in a large metal basin, which is covered with wetted muslin tied over to prevent insects or dust getting into it; this vessel is let into the ground about two feet, which has been previously wetted with water, and it is allowed to remain quiet during the whole night. The attar is always made at the beginning of the season when the nights are cool; in the morning early the little film of attar which is formed upon the surface of the Rose-water during the night is removed by means of a feather, and it is then carefully placed in a small phial; and day after day as the collection is made it is placed for a short period in the sun, and after a sufficient quantity has been procured it is poured off clear, and of the colour of amber, into small phials. Pure Attar when it has been removed only three or four days has a pale greenish hue, by keeping, it loses this and in a few weeks' time it becomes of a pale yellow. The first few days distillation does not produce such fine attar as comes off afterwards, in consequence of the dust or little particles of dirt in the still and the tube being mixed with it. This is readily separated from its sinking to the bottom of the attar, which melts at a temperature of 84°. From one lac of roses it is generally calculated that 180 grains, or one tolah of attar can be procured; more than this can be obtained if the roses are full sized, and the nights cold to allow of the congelation. The attar purchased in the bazar is generally adulterated, mixed with sandal oil or sweet oil; not even the richest native will give the price at which the purest attar alone can be obtained, and the purest attar that is made is sold only to Europeans. During some years, it sells from 80 to 90 rupees the tolah; in other years it can be purchased for 50 rupees. Native stills are let out at so much per day or week, and it frequently occurs that the residents prepare some rose-water for their own use as a present to their friends, to secure their being provided with that which is the best. The natives never remove the calices of the rose flowers, but place the whole into the still as it comes from the gardens.

"The best plan appears to be to have this removed, as by this means the rose water may be preserved a longer time, and is not spoiled by the acid smell occasionally met with in the native rose-water. It is usual to calculate 100 bottles to one lac of roses. The rose-water should always be twice distilled; over ten thousand, rose-water may be put to allow of sixteen or twenty bottles coming out; the following day these twenty bottles are placed over eight thousand more roses, and about eighteen bottles of rose-water are distilled. This may be considered the best to be met with. The attar is so much lighter than the rose-water, that previous to use it is better to expose the rose-water to the sun for a few days, to allow of its being well mixed, and rose-water that has been kept six months is always better than that which has recently been made.

"At the commencement of the rose season, people from all parts come to make their purchases, and very large quantities are prepared and sold. There are about thirty-six places in the city of Ghazeepore where aose-water is distilled. These people generally put a large quantity of sandal oil into the receiver, the oil is afterwards carefully removed and sold as sandal attar, and the water put into carboys and disposed of as rose-water. At the time of sale a few drops of sandal oil are placed on the neck of the carboy to give it a fresh scent, and to many of the natives it appears perfectly immaterial whether the scent arises solely from the sandal oil or from the roses; large quantities of sandal oil are every year brought up from the south and expended in this way.

"The chief use the natives appear to make of the rose-water, or the sandal attar as they term it, is at the period of their festivals and weddings. It is then distributed largely to the guests as they arrive, and sprinkled in profusion in the apartments. A large quantity of rose-water is sold at Benares, and many of the native Rajahs send over to Ghazeepore for its purchase. Most of the rose-water as soon as distilled is taken away, and after six months from the termination of the manufacture there are not more than four or five places where it is to be met with.

"I should consider that the value of the roses sold for the manufacture of Rose-water may be estimated at 15,000 rupees a year, and from this to 20,000, and from the usual price asked for the rose-water and for which it is sold, I should consider there is a profit of 40,000 rupees. The natives are very fond of using the rose-water as medicine, or as a vehicle for other mixtures, and they consume a good deal of the petals for the conserve of roses, or *Goolcund*, as they call it.

There are several other kinds of essential oils produced from the strong scented flowers in this district. But, other perfumed oils are manufactured without resorting to distillation. The layers of the jasmine, four inches thick and two inches square, or other flowers, are laid on the ground and covered over with layers of sesamum or any other oil-yielding seed. These are laid about the same thickness as the flowers, over which a second layer of flowers like the first is placed. The seed is wetted with water, and the whole mass covered with a sheet held down at the end and sides by weights, and allowed to remain for eighteen hours in this form: it is now fit for the mill, unless the perfume is desired to be very strong, when the faded flowers are removed and fresh ones put in their place. The seed thus impregnated are ground in the usual way in the mill, and the oil expressed having the scent of the flower. At Ghazeepore, the jasmine and bela are chiefly employed: the oil is kept in dubbers, and sold for about Rs. 2 a seer. The newest oils afford the finest perfumes. The process here described is the same as that pursued at Bombay. In Europe, a fixed oil, usually that of the bean or morunga nut, is employed. Cotton is soaked in this and laid over layers of flowers, the oil being squeezed out so soon as impregnated with perfume.—*Monthly Bombay Times, 25th November to 24th June* 1850.

Amongst the other arts and manufactures of South Eastern Asia, may be mentioned the lacquer work of Burmah, China and Japan; the ivory work of China: the marble work of Burmah; the gold and silver work of Trichinopoly and Cuttack: the horn-work of Vizagapatam, the sandal-wood work of Canara; the lac work of Kurnool, the tutanague work of Beder, the wood work of Nirmul and Hyderabad in Sind; the shawl and woollen work of the N. W. of India and the muslins of Dacca.

The principal of the arts and manufactures of the Chinese, have been noticed in the Cyclopœdia of India, from the writings of the Honorable Mr. Morrison, Reverend Mr. Williams, Mr. Fortune and Sir John Davies. The last named author is of opinion that the art of printing, the composition of gunpowder, and the magnetic compass, which he says are justly considered in Europe as three of the most important inventions or discoveries of modern times, had their first origin in China. He tells us also, that their printing is by a system of stereotype, the types being made from the pear tree wood, called by them, *ly-mo*. Their paper is made from refuse paper, rags of silk and cotton, rice-straw, the liber of a species of morus, but principally of bamboo.

Koftgari work, or steel inlaid with gold, has in former days, been carried on to a considerable extent in various parts of India. It was chiefly used for decorating armour; and among the collections at the Exhibition, were some very fine specimens of guns, coats of mail, helmets, swords, and sword handles, to which the process of koftgari had been successfully applied. These specimens, however, are not the manufacture of the present day. Since the revolt in India, of 1857, the manufacture of arms has been generally discouraged, and Koftgari work is, consequently, now chiefly applied to ornamenting a variety of fancy articles, such as jewels, caskets, pen and card trays, paper weights, paper knives, inkstands, &c. The process is exactly the same as that pursued in Europe, and the workman can copy any particular pattern required. The work is of high finish, and remarkable for its cheapness.

Koftgari is chiefly carried on in Goojeerat and Kotli, in the Sealkote district.

Several admirable specimens of inlaid metal work by the native artisans of Bhooj were likewise found in the collection of arms contributed by H. H. the Rao of Kutch.

The tradesmen and artizans of India are mostly all associated in classes or sects, or castes, who do not intermarry and seldom eat with others. Amongst these, may be named the Baujara, or wandering grain merchant: the Bhatthari or cook: chichri or scavenger: the dhor or currier and leather worker; dhangar or shepherd; erkel vadu or basket maker: gaoli or dairy man: kalaigar or tinner: kassar or brazier; khanjar or poultryman; ladaf or cotton seller: larkassai or beef-salesman: Lalbeg or scavengers: Lohar or blacksmith; Mookre mealman; Muchi, leather worker: Rangrez or dyer; Saikalgar or Cutler: and Sonar or goldsmith. There are many wandering tradesmen tribes, mostly predatory.—*Proceedings of Bombay Committee for Great Exhibition of* 1861. *Monthly Bombay Times, 25th November* 1850 *to 27th June* 1851. *Edinburgh Review for July* 1867, *Dr. Watson and Taylor quoted in same. Madras Exhibition, Juries' Reports.* See Armour Boats; Dyes; Fisheries: Cloths: Spinning: Weaving.

ARUB KHAN, a town in India in Long 71° 10′ E. and Lat. 35° 8′ N.

ARU CHANGALI ? అరుచంగలి. Tel. Andropogon montanus, *R.* i. 267. A doubtful name.

ARUDONDA. అరుదొండ-(అదొండ.) Tel. Capparis horrida, *L.*

ARUDU. అరుదు.(సదాప.) Tel. Ruta angustifolia, *Pers. R.* ii. 374.

ARUGAM-PILLU. அருகம்-பில்லு. Tam. Cynodon dactylon. Pers.

ARUGO. Verdigris. See Copper.

ARUGUM. Maleal. അറുഗം. Agrostis linearis.

ARU KANLA KACHORAM. అరుకంలకచోరం. Tel. Curcuma amada, *R. Aru kanla* meaning "six eyes" *Shadgrandhika* "six jointed," are also given as Syns. of *Nalla altivasa* or *C. caesia* and seem to be merely Sans. Forms of the same word, both probably referring more correctly to *C. Zedoria* or "long zedoary."

ARU KANUPULA KRANUGA. అఱుకనుపుల క్రానుగ. Saccharum officinarum, *Var* ?

ARUKZYE, an Afghan tribe of the Khyber pass, herdsmen, who pass the winter in the lower levels of the Khoat and the Tiri hills and in summer drive their flocks and herds to the mountain tops.

ARULI. HIND. Emblica officinalis, Gært.

ARUM, a genus of plants of the natural order Araceæ, of which Roxburgh enumerates 22 species; Wight, 19; and Voigt, 8. Many species of Arum are edible on being cooked and some of them greatly prized. Those enumerated by the three authorities are Arum.

bulbiferum...	R. W.	lyratum	...R.V.
campanulatum.	R. W.	margaritiferum	R.W.V.
colocasia	...R. W.	montanum	...R.W.V.
cucullatum	...R. W.	nymphæfolium..	...R.
curvatum	...R.W.V.	odorum	...R.W
cuspidatum	...R.W V.	orixense	...R.W.
divaricatum...	...R.W.	rapiforme	...R.V.
flagelliforme ...	R. W.	sessiliflorum...	R.W.V.
fornicatum...	...R. W.	sylvaticum	...R. W.
gracile	...R.W.V.	trilobatum	...R.W.
indicum	...R.W.	viviparum	...R.W.

But only curvatum, cuspidatum, gracile, lyratum, margaritiferum, montanum, rapiforme and sessiliflorum are now referred to this genus, others having been placed with the genera amorphophallus, colocasia, typhonium which see. A. lyratum, Roxburgh, the Adavi or wild Arum of the Circars, needs to be carefully dressed to remove its hurtful qualities. A. montanum Roxburgh, also the Kunda rakasi of the Sircars, is so poisonous that its root is employed to poison tigers.—*Roxb.*

ARUM ÆGYPTIACUM. RUMPH. Syn. of Colocasia antiquorum.—*Schott.*

ARUMAN, variegated white and black, is employed for canes, handles, and spears, &c., and is very heavy.

ARUM CAMPANULATUM. Syn. of amorphophallus campanulatus.

ARUM COLOCASIA. Syn. of Colocasia antiquorum.

ARUM INDICUM. LOUR. Syn. of Colocasia Indica.—*Roxb.*

ARUM NYMPHÆFOLIUM. ROXB. Syn. Colocasia nymphæfolia.—*Roxb.*

ARUM ODORUM, (*Roxb.*) the Fragrant arum, (Peing-ma ha-yaw, Burm.) is a most singular plant. It has a stem one or two feet high and six inches in diameter resembling a low palm, with gigantic cabbage leaves three or four feet long by two or three wide. The flowers are said to be fragrant. The natives cultivate it, not for food, like the other species of arum, but, as they say, for medicine. *Mason*, 436. *Roxb. ii.* 499.

ARUM ORIXENSE. *Roxb.* Syn. of Typhonium Orixense.—*Schott.*

ARUM RAPIFORME, (*Roxb.*) grows in India.

ARUM RUMPHII. GAUDI. Syn. of Amorphophallus campanulatus.

ARUM TRILOBATUM. LOUR. Syn. of Typhonium Orixense.—*Schott.*

ARUM ZEYLANICUM. COMMEL. Syn. of Amorphophallus campanulatus.

ARUNA. BENG. Rubia cordifolia. *Linn.*

ARUNA, in the Sabaean system of the Veda, is the charioteer of the sun, driving his six horsed car—corresponding with the Aurora of the Greeks. The emblem or vahan of Vishnu is *Garuda*, or the eagle, and the Sun-god both of the Egyptians and hindus is typified with this bird's head. *Aruna* (the dawn), in hindu mythology, the son of Kasyapa and Vinata, is the brother of Garuda, and the charioteer and harbinger of Surya. He is, therefore, described as the dawn, and as a handsome youth without thighs or legs.—He is hence styled the charioteer of Vishnu. His two sons, *Sumpati* and *Jutayoo*, attempting in imitation of their father to reach the sun, the wings of the former were burnt and he fell to the earth: of this the Greeks may have made their fable of Icarus. Aruna's imperfect form has been supposed, to be allusive to his partial appearance, his head and body may be seen, but his legs are yet in invisible night, or lost in the blaze of Surya's brilliancy.—*Moor, p.* 447. *Cole. Myth. Hind. p.* 374. *Tod's Travels. Taylor's Mackenzie, M. S. S.* See Garuda. Surya: Vahan.

ARUNDAWALL, a town in India in Long. 82° 12′ E. and Lat. 18° 20′ N.

ARUNDHATE, the wife of the rishi Vaisistha, a resident of swerga, whom the devoted suttee woman invokes, before mounting the pile. See Sati.

ARUNDINA, Dr. Hooker in his Himalayan travels found this beautiful purple grassy-leaved orchid, abundantly in flower on the hill top, and the great white swallow-tailed moth (*Saturnia Atlas*) was extremely common, with tropical butterflies, and other insects. It is perhaps A. bambusifolia.—*Hooker Him. Jour. Vol.* II. *p.* 305.

ARUNDINARIA UTILIS, BENG. HIND.

Hill bamboo ...	... ENG.	Nigala	... PUNJAB.
Ringal	... HIND.		

This is found in the Sutlej valley between Rampur and Sungnam at an elevation of 9000 feet. Used for wicker work, and for lining the roof of houses. Shepherds' pipes, baskets, and mats are made of it.—*Cleg. Panj. Rep. p.* 80.

ARUNDO, a genus of the Gramineæ, several species of which occur in India, some of them not defined. Of these there are in Burmah, five species, the Pyoo, the Lai, the Phoung, the Kyoo and the A-loo of the Burmese.

ARUNDO ARBOR. LINN. Syn. of Bambusa spinosa.

ARUNDO BAMBOS. LINN. Syn. of Bambusa arundinacea, also of Bambusa spinosa. LINN.

ARUNDA KARKA. ROYLE.

Arundo Roxburghii KTH.
Trichoon karka, ROX.
Cala magrostis „ GMEL.

Nul ... ... HINDI. | Sur ... ... SINDI
Nultura ... ... „

This grows in Bengal and Sind. Its culms, sur jŏ jauee, are made into chairs, and its flower-stalks beaten to form the fibres called Moonyah. These are made into string or twine (Moonyah jo naree), and into ropes (Moonyah jŏ russa). The culms are also made into baskets, and the common door-mats of Calcutta are made of the stalks split open, ships generally use them as dunnage. *Roxb. i.* 347.—*Royle Fib. P. page* 32. *Hog. Veg. Kingdom,* 821.

ARUNDO ROXBURGHII. KTH. Syn. of Amphidonax karka.

AURUNG-ANGAMI, a Tibeto—Burman tribe that has intruded on the Bodo and Mikir tribes, in Assam. See Angami. India 342, in C. of I.

ARUN TUTA, the inspissated juice of a bulbous plant, supposed to be a species of Colchicum. It is sold at a high price and is much sought after by the people of the Hazarajat, in Central Asia, being of high repute in diseases of the eye. It is sold in small pieces of a dark brown colour, but is indiscriminately applied and must often act injuriously.—*Masson's Journey, Vol. ii. p.* 338.

ARUNGPOUR, a town in India, in Long. 91° 44′ E. and Lat. 24° 40′ N.

ARUS. BENG. Solanum verbascifolium.

ارس **ARUS,** also **ASGANDA,** also **ANIS.** HIND. Adhatoda vasica.

ARUSHKARA, SANS. Semecarpus anacardium.

ARUVAR, a sect or class or division of the Buddaga race of the Neilgherry hills. See Buddaga, Kurambar, Neilgherries.

ARUZ ارز. ARAB. Properly Araz, Rice.

ARVAD. The island of Ruad, about a league from the shore, is supposed to be the Arvad, Arpad, or Arphad of Scripture, the Aradus of the Greeks and Romans, once a powerful maritime republic.—*Robinson's Travels, Vol. ii. p.* 70.

ARWI. اروي HIND. Arum colocasia.

ARVANUS, The nearest approximation to Valerianus, supposed to be the emperor Valerian (Valerianus) *Arvanus*(اروانس) and *Arianus* اريانوس. That these names indicate Valerian appears from Tabris description of the person who bore them; for he was one of the Roman sovereigns(ملكي بود اريوميان) who having been conquered by Shapur in a fort near Antioch, was led into Susiana; where the Persian monarch undertaking some extensive structures (at *Shushter*), obliged his captive to assist in the work, by procuring experienced artists from Rome or Greece, and he promised that liberty should be the reward of this co-operation. The task was performed, and Shapur observed his promise; but first cut off the Roman chieftain's nose, to brand him with an indelible mark of captivity. *Ouseley's Travels, Vol. I. p.* 287.

ARYA. See Aria.

ARYA in Ceylon buddhism the rahatship, the last of the four paths leading to nirwana.—*Hyder's Eastern Monarchism, p.* 433.

ARYA BHATTA, a celebrated hindu astronomer who flourished in the 4423d year of the Cali yug, answering to A. D. 1322. He left several Mathematical tracts, some particularly relating to the properties of the circle.—*Captain Edward Warren's Kala Sanhita.*

ARYA SIDDHANTA. A treatise on astronomy, composed by Arya bhatta, of which there is a spurious one. There is some variation in the copies of this work preserved in Bengal and in the Carnatic, the former making the Solar year 365d. 31p. 17c. 6″, the latter 365d 15g. 31v. 1p.; and the Lunar Synodical month, the former 29d. 31. 50v. 6p. 7s. 84, &c., and the latter 29d. 31g. 50v. 5p. 40s. 21, &c.—*Captain Edward Warren's Kala Sanhita.*

ARZAL, HIND. Low; any inferior object; also applied to humble people.

ARZAN. PERS. ارزن Panicum pil[illegible]. Millet. Setaria Italica.—*Roxb.* also cheap.

ARZENIE, in Lat. 24° 46′ N. Long. [illegible]° 42′ E., an island 1¼ [illegible] long on the S. side of the Persian gulf.—

ARZO-BISHO IS[illegible], **or BONIN SI-MA,** several groups in the Archipelago, [illegible] tending from L. 27° 44½′ N. to 26° [illegible] N. and to the most northerly of which has been given the name of Parry Group.—*Horsb.*

ASA. HIND. Hope. The hindu goddess of hope, Asa, Pl. A-en, Sansc. according to Bunsen, means "existent," "living ones," in opposition to Wana divinities of the air.

ASAF. آصف ARAB. Capparis spinosa.

ASAFŒTIDA.

Hiltith ...	Ar.	Angu ...	Malay.
Hing ...	Beng.	Hingu ...	„
Shueng-gab ...	Burm.	Ingu ...	„
Duivels dreck	Dut.	Anguzeh ...	Pers.
Asafœtida ...	Eng.	Hinga, Hingu	Sans.
Assafœtida ...	Fr	Asafetida .	Sp.
Teufels-drech	Ger.	Perangayam	Tam.
Hing ...	Hind.	Inguva ..	Tel.
Asafœtida ...	Lat.		

This gum resin is the product of the Ferula asafœtida, a synonim of the Narthex asafœtida, and has perhaps also the produce of other umbelliferous plants mixed with it. Dr. Cleghorn tells us that an umbelliferous plant, yielding asafœtida grows north of Kilar. The plant is an annual, and attains a height of 8 or 10 feet. It grows in Persia, in the neighbourhood of Herat, on the Hindu Kush at an elevation of 8,000 feet; it is found growing in the Dandan-Shakoh pass and in Panji, in the valley high up on the Sutlej river, and in the mountains of Daristan and Beluchistan. Sir A. Burnes believed this plant to be the Silphium of Alexander's historians. Moorcroft tells us that the chief article of the commerce of Sykan beyond Bamian is asafœtida, of which about two hundred maunds are gathered annually from plants that grow wild upon the mountains. In the spring, the earth is partly removed from about the root, and the stem and leaves cut off close to the ground; a juice exudes from the surface, which, when dried, is scooped off; a slice is then cut from the root, and the juice exudes again from the fresh surface; this is repeated a third and a fourth time. A root of a good size yields about half a pound of the dried juice. The asafœtida brought to India is obtained from Bokhara. The gum has so very fetid an odour as to have obtained the name of devils' dung. It is obtained by slicing the roots and a white milky juice exudes, then turns yellow and hardens in which state it is put into hair bags and exported, and it is met with in commerce in shapeless masses of a waxy consistence with small transparent brittle and white tears. The fracture is vitreous, at first white, and passing to red by contact with the air, a property which distinguishes it from all other gum-resins. Another and much more valuable kind of Asafœtida is sometimes met with in the bazars and druggists' shops. It is in tears, or semi-transparent whitish granulations, free from impurities, and of most powerful odour; this kind is readily reduced to powder, and is much valued by European druggists. In India it is but rarely met with, and readily meets purchasers at a high price. About 100 tons are annually imported into England valued at £1 to £4 the cwt., but it is nearly all re-exported being little used but in veterinary practice. It comes to India by the Persian Gulf, and is largely used by all the hindu people as a condiment, and in medicine. It is used particularly by the brahmins who from living entirely on vegetable food and milk, require some powerful corrector of acescency, and find nothing that answers the purpose so well as this which is besides cardiac and antispasmodic, and so strongly are they impressed with an idea of its virtues that they think they would die without it.—(*Ainslie's Mat. Med. page* 267.)

For medical uses, Asafœtida is a powerfully carminative and stimulant tonic, devoid of acrid and irritating properties. It produces a sensation of heat, and increased secretion in the alimentary canal, with eructation; head-ache, and giddiness are often experienced, and the urinary and genital organs seem to be sometimes materially excited. It is chiefly used in hysteria, hypochondriasis, flatulent colic proceeding from dyspepsia, in chronic catarrh, and in spasmodic asthma not connected with disease of the heart or lungs. In worm affections too it is often employed with benefit.—*O'Sh. p.* 363. *Dr. Mason. Poole's Statistics. Hog's Veg. King. p.* 387. *Mr. Faulkner.* Moorcroft, ii. p. 395. *Cal. Cat. Ex.* 1862. *Ainslie's Mat. Med. p.* 267. See Ferula also Narthex.

ASALOO. A small plant cultivated about Ajmeer, the seeds are heating, and promote the secretions, they are also taken in milk to strengthen the body; much used in mesalih for camels; to the taste they are bitter and hot.—*Irvine Gen. Med. Top. p.* 124.

ASAM KA PHAL. Duk. Var. of Mango.

ASAN. Sans. Terminalia alata, also T. tomentosa.

ASAN, or ASANA. Mar. Briedelia spinosa.

ASAN. Pers. One of the solar months See Fasli.

ASANA PELA MARAM. Tam. ஆசன பெலா மரம் Anjeli wood tree, Artocarpus hirsuta.

ASARABACCA. Asarum Europœum. *Linn.*

Asarum ...	Ar.	Tuckir ...	Hind.
Asarabacca	Eng.	Tuggur ...	
Foal foot	„	Tucki ...	„
Cabaret	Fr.	Upana ...	Sans.
Assaret	„	Mutricunjayvi	Tam.
Haselkraut	Ger.	Cheppu tataku	Tel.

The leaves and roots of this European plant are met with in all the bazars of India, but Dr. Royle states that much of it is spurious, those of a hill plant named Tugger being often substituted: 40 to 60 grains infused in eight ounces of water act as an emetic, in large doses as cathartic and the powder of the leaves causes violent sneezing. Until the introduction of ipecacuanha into Europe, the Asarum was used for most of the purposes for which the Southern American drug is now employed and other virtues are attributed to it.—*O'Shaughnessy*

Beng. Desp. p. 669. *Hog,* [illegible] *Kingd. Birdwood's Bombay Products.*

ASANYASATTA, in Singh[illegible]e buddhism, an unconscious state of being, 3[illegible].—*Hyder's Eastern Monachism, p.* 434.

ASAR-I-SHARIF. (اثار شريف) ARAB. HIND. PERS. Amongst mahomedans, relics of their prophet, such as the hair of his beard, &c.

ASARI POOLI MARAM, TAM. Stilago diandra.

ASBESTOS. Amianthus. Sang-i-Pamba. PERS. The long and silky fibres of Amianthus have been employed in the manufacture of a fire proof cloth and as lamp-wicks. It is found in Jellalabad, and the Persian name means cotton stone. Common Asbestos is found in several parts of India, and largely in Salem and Mysore, and indurated asbestos abundantly.

ASA-PURNA, the hindu deity Hope.

ASARH, the third hindu solar month.

ASARUM EUROPŒUM. *Linn.*

Common Asarabacca or Foalfoot .. ENG.	Mootricunjayvie... TAM.
Tuckir .. ... HIND.	Chepoo-tata-koo... TEL.

ASAROON, ARAB. Asarabacca.

ASATI, a town in India, in Long. 78° 50′ E. and Lat. 25° 24′ N.

ASAWAL or AHMADABAD, is on the left bank of the Sabarmati.

ASCALON, the modern Askulan, anciently a maritime town of the Phœnicians now a mass of ruins.

ASCARIDA INDICA. CASS. Syn. of Vernonia anthelmintica. *Willd.*

ASCESINES, one of the rivers of the Panjab, as known to the Greeks, now called the Chenab. It joins the Indus. See Kabul; Indus: Panjab.

ASCETICS, amongst the hindu devotees are several sects, but the more common are the Viragi or Saniasi, who live in monasteriee: The Pandaram who live in the temples as the pujari or worshipping official, who also abstain from women. Amongst the buddhists, in the [illegible] all the young men and all the Foungyes live in monasteries. Amongst the Jains, a sect with a mixture of hinduism and buddhism, all their teachers are ascetics. Amongst the mahomedans, there is little asceticism, the Kalendar darvesh (dervis) alone practicing celebacy.

Some of the hindu ascetics used to carry their asceticism to the extremes of bodily punishment and torture, sitting for years over a hot fire, or with eyes open looking at the sun exposed to summer heats and winter colds, naked and maiming their persons by suspending heavy weights; holding their hands closed until the nails would grow through; holding their arms upright till the joints became fixed, or lying on beds with iron spikes, or with iron collars so placed on their neck as to prevent repose—or making vows that they will not take rest till they have accomplished some act. All buddhist monks of Burmah and many hindu devotees, to obtain their daily food, perambulate the streets, walking rapidly, soliciting from no one. Of the mahomedans one sect in the Dekhan, voluntarily become eunuchs and dress like women, visiting the houses of mahomedans on the birth of a son or daughter, and exacting a money dole, up to five rupees. Under British sway, all these classt es are fast disappearing not being esteemed: few Europeans and few natives even have seen the more pretensious of them, yet, recently, we saw in the Elephant buddhist cave of Ellora, a hindu Biragi, sitting naked, smeared with ashes (vibudhi) who had then so sat for five years: and we have known one instance of an upright young hindu in good employ and with fair prospects abandoning his wife and children to lead an ascetic monastic life. Suliman the Arab traveller, writing A. D. 851, mentions that some of them go about naked, wander in forests and mountains, live solely on herbs and fruits, stand naked with the face turned to the sun, with only a panthers skin as a covering, and mentions having seen a man standing so, and on returning sixteen years afterwards found him still in the same posture.—(*Elliot's History of India.*) Col. Tod had seen one of these objects, self-condemned never to lie down during forty years, and there remained but three to complete the term. He had travelled much, was intelligent and learned, but, far from having contracted the moroseness of the recluse, there was a benignity of mien, and a suavity and simplicity of manner in him, quite enchanting. He talked of his penance with no vain-glory, and of its approaching term without any sensation. The resting position of this Druid (vana-perist) was by means of a rope suspended from the bough of a tree, in the manner of a swing, having a cross-bar, on which he reclined. The first years of this penance, he said, were dreadfully painful; swollen limbs affected him to that degree, that he expected death; but this impression had long since worn off, "Even in this, there is much vanity, and it would be a nice point to determine whether the homage of man or the approbation of the divinity, most sustains the energies under such appalling discipline.—(*Tod's Rajasthan.*)

Even yet, the behests of such ascetics are secondary only to those of the divinity, whose organs they are deemed. Like the Druids of the Celts, the Vana-perist Jogi, from the glades of the forest (vana) or recess in the rocks (gopha), issue their oracles to those whom chance or design may conduct to their solitary dwellings. It is not surprising that the mandate of such beings prove compulsory on the superstitious Rajpoot: we do not mean those squalid ascetics, who wander about India, and are objects disgusting to the eye; but the genuine *Jogi*, he who, as the term imports, mortifies the flesh, till the wants of humanity are restricted merely to what suffices to unite matter with spirit; who has studied and comprehended the mystic works, and pored over the systems of philosophy, until the full influence of *maia* (illusion) has perhaps unsettled his understanding, or whom the rules of his sect have condemned to penance and solitude; a penance so severe, that we remain astonished at the perversity of reason which can submit to it. To these, the Druids of India, the prince and the chieftain resort for instruction. See Aghora, Anthropophagi, Buddhism: Darvesh: Fakir: Hindu: Jogi: Mastani: Sanyasi: Viragi.

ASCHARA, Sansc, according to Menu, the syllable O'M. All rites ordained in the Veda, oblations to fire,and solemn sacrifices, &c., pass away; but that which passeth not away, is the syllable O'M, hence called Aschara since it is the symbol of God, the Lord of created beings. See Gayatri. Hindu. O'M.

ASCIDIA. See Tunicata. Ascidiadæ.

ASCIDIADÆ, a family of the class Tunicata or Tunicaries, of the Mollusca. The Ascidiadæ, have five genera, viz.: Molgula; Cynthia; Pelonæa; Chelyosma and Boltenia. See Mollusca. Tunicata.

ASCLEPIACEÆ, a natural order of plants, of which several genera and species occur in South eastern Asia, in Arabia, China, Japan and 221 species in India, Ceylon and the Archipelago; fifty of which occur in the Himalaya, the Khassya hills and Assam. See notices under Dogbanes, Pergularia odoratissima, Tweedia, Cryptostegia grandiflora, Cynanchum, Marsdenia tenacissima, Stapelia Buffonia. Gymnema-lactiferum: Tylophora asthmatica, Secamone emetica, Solenostemma argel; Calotropis gigantea; Hoya; Pergularia; Sarcolobus; Holastemma, Hemidesmus.

ASCLEPIAS, of the genus of plants, of the natural order Asclaceæ, though Roxburgh [illegible] enumerates twenty-nine, and Wight, in his Icones, gives figures of nineteen, species, Asclepias acida; annularia: cordifolia: echinata: herbacea, laurifolia: longistigma: montana: ovalifolia, pallida, parasitica, pendula: pseudosarsa: racemosa: tenacissima: tenuissima, tinctoria: tingens: and volubilis,—most of these have now been classed by other authors under other genera; as in the following instances viz:

Asclepias acida. Roxb. Syn. of Sarcostemma brevistigma.—*Wight.*

Asclepias annularia. Roxb Syn. of Holastemma Rheedii, Spr.

Asclepias aphylla. Roxb. Syn. of Sarcostemma brevistigma.—*Wight.*

Asclepias asthmatica. Roxb. Syn. of Tylophora asthmatica.—*W. and A.*

Asclepias convolvulacea. Herb. Syn. Heyne. of Holastemma Rheedii, Spr.

Asclepias echinata. Roxb. Syn. of Dæmia extensa.—*R. Brown.*

Asclepias gigantea. Willd, Syn. of Calotropis gigantea. Brown. also of C. procera.

Asclepias microphylla. Roxb. Syn. of Pentatropis microphylla.—*W. and A.*

Asclepias pendula. Roxb. Syn. of Hoya pendula.—*Wight and Arnott.*

Asclepias pseudosara. Var. latifolia, Roxb. Syn.of Hemidesmus Indicus.—*R. Brown.*

Asclepias pubescens. Wall. Syn. of Tylophora asthmatica.—*W. and A.*

Asclepias rheedii. W. and A. Syn. of Hoya pendula.—*Wight and Arnott.*

Asclepias tenacissima. Roxb. Syn. of Marsdenia tenacissima.—*W. and A.*

Asclepias tinctoria. Roxb. Syn. of Pentatropis microphylla.—*W. and A.*

Asclepias tinctoria. Roxb. Syn. of Marsdenia tinctoria.—*R. Brown.*

Asclepias tomentosa. Herb. Madi. Syn. of Marsdenia tenacissima.—*W. and A.*

Several of these are reared as flowering plants. See Calotropis; Hindoo: Marsdenia.

ASCLEPIAS VOLUBILIS. *Linn.*

Palay keeray. ...	TAM.	Palay koora... ...	TEL
Nukchikæ ki baji.	DUK.	*Ains. Mat. Med. p.* 255'	

ASCLEPIAS VOMITORIA KOEN. Syn. of Tylophora asthmatica.—*W. and A.*—

ASCLEPIAS CURRASAVICA. *Linn.*

Indian Root.	Currassavian Mallowwort.
Wild Ipecacuanha.	Yellow milk weed.
Bastard „	

a native of the West Indies, is now found in most parts of Tropical America and India and cultivated in China as a flowering plant: is a pretty little annual, with a small saffron and orange-coloured flower, and is quite common in the Tenasserim Provinces. The root is emetic and is also used by the negroes of the West Indies. The juice is made into a syrup and is used as a vermifuge.—*Williams' Middle Kingdom p.* 288 *Voigt p.* 539.

ASEES. HIND, a form of hindu benediction only bestowed by women and priests: it is performed by clasping both hands over the person's head, and waving over him a piece of silver or other valuable which is bestowed in charity. The Tamil people similarly wave a fowl or sheeps head around a sick man. This is a very ancient ceremony, and is called *Nachravali.* Col. Tod frequently had a large salver filled with silver coin waved over his head, which was handed for distribution amongst his attendants. It is most appropriate from the ladies from whom also be had this performed by their proxies, the family priest or female attendants. It is also a mahomedan rite. *Tod's. Rajasthan Vol. i, p.* 618. See Bulain Lena.

ASELLUS. The Cod. See Cod Liver Oil.

ASFALT. Rus. **ASFALTO.** Sp. Bitumen.

ASFIDAJ. Arab. آسفيدج White Lead.

AS-GANDH. Sans. Dekh. Physalis flexuosa, Nees : P somnifera.

ASGHUR, a town in the Punjab, on the Indus, where there are gold washings.

ASH TREE. Fraxinus.

Aran...	... Arab.	Ornus...	...Lat.
Oren ..	... Heb.		

Of this genus, there are two species in the Western Himalayas, the Fraxinus floribunda, or large Ash and F. Xanthylloides or Crab Ash. The wood of the former in toughness resembles English ash, it is a large tree, occasionally 12 or 13 feet in girth, but is not abundant. The crab ash is only large enough for tool handles. They grow in the Western Himalayas, in the Mehra forest, near Abbotabad, Hazara, and in the valley of the Sutlej, there is abundance of yew and olive, and a considerable quantity of box and ash, the ash and olive near the river but the box and yew on the higher slopes, 2,000 feet or more above the Sutlej. The larger ash and yew are much esteemed for Jampan poles, hafts and tool handles, &c., and the Ash, in colour, grain and toughness resembles the English and makes good walking sticks.—*Cal. Cat. Ex.* 1862. *Clegh. Punjab Report.* See Fraxinus.

ASHAAR, a son of Joktan. See Joktan.

AS-HAB, Arab, companions of Mahomed. The Astuwanat-el-Ashab, the Column of the Companions, whose graves are at the El Bakia, 301.—*Burton's Pilgrimage, iii. p.* 396.

ASHADAH, Sans. A. Purva, the 20th, and A. Uttara, the 21st Lunar mansions, also the 4th Lunar month.—*Ed. Warren Kala Sanhita.*

ASHADHA, the 3rd Solar month, Hindu denomination, when the Sun is in the sign Midhuna, II, answering to the Tamil month Audi.—*Ed. Warr. Kala Sanhita.*

ASHAKA-BASH. See Youkharee bash.

ASHARY, in Malabar, the carpenter caste, who in common with the brass founder, gold and iron smiths, continue the practice of polyandry, but in Civil inheritance follow from father to son, and not the old Italian practice of maternal descent, descensus ab utero. The elder brother marries and the wife is common to all the brothers. If a junior wish to marry he must live apart and set up business apart, but if any of his younger brothers reside with him, his wife is common to them. See Polyandry.

ASHDOD, the modern Esdud, now an insignificant village, 11 miles, S. W. from Ekron.

ASHER, the modern Accho, is situated at the northern corner of the Bay of Acre, opposite Mount Carmel.

ASHES.

Sambool	... Tam.	Bhasnuam	... Sans.
Boodida	... Tel.	Vibudi	... Tel.
Rakh	... Hind.	Tiroonoot Oondi...	Tam.

Wood ashes are useful for cleaning metals; enclosed in a bag and dusted through it by striking it on a knife board, it is a good substitute for bath brick for cleaning knives. Balls of cowdung ashes are sold in the bazars under the Teloogoo name of Vibudi, *Tamul*, Tiroonoot Oondi, and are much used for cleaning military appointments and brass mountings of harness, &c. In commerce, the term applies to such vegetable ash as the alkaline salts are extracted from.—*Mr. Rhode, M. S. S.*

ASHKANIAN, written also **ASHGANIAN** a name given by the Persians to a number of petty kings who followed after Alexander, they are the Arsacidæ of the Greeks and are also described as the Muluk ul Tawaif. See Arsacidæ : Persian Kings.

ASHLESHA, in hindu astronomy, the asterism of the serpent.

ASHOK. Sans. Jonesia asoca.

ASHON. Beng. Terminalia tomentosa.

ASHOO-KUCHOO. Beng. Colocasia antiquorum.

ASHORA or **ASHRAH.** Arab. From Arabic, 'ashr' a tenth part, the first ten days of the mohurrum, or the ceremonies observed during that part of the month. Houses are appropriated in which they set up Allums, Taboots, Shah-nasheens, Booraq's, &c., and sometimes screens made of mica. These places are called the Ashoor Khanah (ten day house); Tazeea Khanah (the house of mourning); and Astana (a threshold or faqueer's residence). In Upper Hindustan, opulent mahomedans erect an Imambara, and the Shiahs generally follow a similar practice.—*Herklots.*

ASHPHUL. Beng. Nephelium longan or Scytalia longan. Mclay longan.

ASHR. Arab. Calotropis gigantea.

ASHR. Ar. The tenth, by mahomedan law, land is liable only to two imposts, viz., the Ashr or tithe, a poor rate due only on the actual produce of the soil, and the khiraj or tribute, generally imposed on land within reach of running water or means of irrigation. A land can be subject both to Ashr and Khiraj at the same time. See Khiraj.

ASHRAF. This poet dates his history of Sekander or Alexander, entitled *Zaffer. Nameh* the Book of Victories, A. H. 848, (A. D. 1,444).—*Ouseley's Travels, Vol. ii. p.* 391.

ASHRAFFI, a gold coin of India, no longer current, value 15 and 16 Rupees called a gold mohur. See Silver Coinage.

ASHRAF-UL-BALAD, an appellation of Kandahar.

ASHRE. A grove. The groves in which the ancient Sabæans worshipped. – *De Bode.*

ASH-SHORA.—? Limonia pentaphylla?

ASHSHOWRA. Beng. Glycosmis pentaphylla.

ASHTA, four towns in India one in L. 75° 19′ E. and L. 18° 45′ N., another in 76° 15, E. and L. 19° 24′ N., a third in L. 76° 49′ E′ and L. 18° 32′ N., and a fourth in L. 76° 51. E. and L. 23° 9′ N.

ASHTA Sans. Eight. Asta Dika, the eight points of the compass, including the cardinal.

ASHTAKA. Sansc. A book or chapter of the Vedas, a series of which forms a Sakta. See Arian; Veda.

ASHTANGA DANDA; Dandawat, a hindu reverential salutation, consisting of the prostration of the body with the application of eight parts—the forehead, breast, hands, knees and insteps of the feet, to the ground.

ASHTA SAHARISKA, a book on buddhism. See Prajna.

ASHTI, in L. 18° 48′ N L. 75° 11′ in the Dekhan; 30 miles S. E. of Ahmednugger, the site of the last battle with the Maji Rao. The mean height of the village is 1,460 ft. *Buist*. another Ashti is in L 75° 41′ E. and L. 18° 25′ N. and a third in L. 75° 29′ E. and L. 17° 50′ N.

ASHTORETH, Ασταρτη, Astarte, the principal female divinity of the Phœnicians, as Baal was their principal male divinity and her worship seems to have gone with the Phœnicians to all their colonies. Astarte, of the Syrians, Ken of the Egyptians, Hera of the Assyrians, Venus of the Greeks and Romans, the Myletta of the Arabs and Doorga of the hindus are all one and the same divinity, with modifications to suit the views of the different nations who followed the worship of the female generative principle. The worship was baredon a physiological theory. The hindu Doorga, as well, stands erect upon a a lion and holds a serpent in her hand as does Ken in the Egyptian tablet, or Hera in the Assyrian bas reliefs. See Astarte.

ASHWA GUNDA. Beng. Physalis somnifera, var. P. flexuosa, Nees.

ASHWAPOOR, a town in India in L. 80° 51′ E. and L. 17° 52′ N.

ASHWITH. Beng. Ficus religiosa.—*Linn.*

ASI, was the term applied to the Gete, Yeut or Jut, when they invaded Scandinavia and founded Jutland. The Asi seem to have been a northern race with several divisions some of which appear to have been conquered by the Egyptian king Seti III. Colonel Tod considers that Scandinavia was occupied by a tribe of the Asi. He says that the Suevi or Sivones, erected the celebrated temple of Upsala in which they placed the statues of Thor, Woden and Freya, the triple divinity of the Scandinavian Asi.

ASIA, the Southern and Eastern portion of this part of the Old World, which may be noticed in this Cyclopædia, may be indicated as lying South of Siberia. Traversing the kingdoms of Hindustan and Kabul, from the East of Bengal to Herat, we find India everywhere bounded on the North by a chain of mountains, which is covered with perpetual snow for almost the whole of that extent, and from which all the great rivers of both countries appear to issue. This chain commences near the Bramhaputer, and runs nearly Northwest as far as Kashmir. During this part of its course, from Hima, the Sanscrit, for snow, it is called Himaleh, by the natives of the neighbouring countries and it is the Himalaya of the British. From Kashmir, its general direction is a little to the South-west, as far as the high snowy peak of Hindoo Coosh, nearly north of Kabul. From this peak its height diminishes, it no longer wears perpetual snow, and is soon after lost in a group of mountains, which stretch in length from Kabul almost to Herat, and occupy more than two degrees of latitude in their breadth. Some ranges issue from this mass on the west, and extend so far into Persia, as to justify, if not completely to establish, the opinion of the ancients, which connected this range with mount Caucasus on the west of the Caspian Sea. From Cashmeer to Hindoo Coosh, the whole range is known by the name of that peak. From thence to the meridian of Herat, the mountains have no general name among the natives, but that of Paropamisus has long been applied to them by European geographers. As seen from the plains of Peshawar, the fourth is the principal range of the Indian Caucasus, and is always covered with snow. It is conspicuous from Ractria, and the borders of India, and is seen from places far off in Tartary. Elphinstone says that the ridge of Imaus or Himalleh, is seen from a distance of 150 and even 250 miles. The Paropamisan chain, which bounds the Kohistan on the west, extends three hundred and fifty miles from east to west, and two hundred from north to south. The whole of this space is a maze of mountains, and, though it affords a habitation to the Eimauk and Hazara tribes, it is so difficult of access, and so little frequented, that no precise accounts of its geography are to be obtained. It is certain, however, that the range of Hindoo Coosh is there no longer so lofty as to be conspicuous among the mountains by which it is surrounded, and that no continued line of perpetual snow can any more be traced. The eastern half of this elevated region is inhabited by the Hazareh, and is cold, rugged, and barren; the level spots are little cultivated, and the hills are naked and abrupt. The western part, which belongs to the Eimak, though it has wider valleys, and is better cultivated, is still a wild and poor country. The northern face of these mountains has a sudden descent into the province of Balkh: their acclivity is less on their other extremities, except perhaps on the west or south-west. On the north-west they seem to sink gradually into the plain which borders on the desert. The slope of the whole tract is towards the west. To the north of this, extending eastwardly and to the west, are the elevated plains of Tartary, the Asiatic dominions of Russia, Chinese Tartary and China, and the regions occupied by several Turkoman nations. To the south is India with its two peninsulas, and its archipelagos on the eas, with the dominions of Persia, of Turkey in Asia and Asia Minor and the peninsula of Arabia on the west.

Central Asia, is a term of the present day, used differently by geographers, ethnologists and politicians, but is usually applied to the region entervening between Russia in Asia and British India and lying to the west of Chinese Tartary. The whole country of Central Asia between India and Tartary, is one broad mountain range, the Himalaya forming the southern crest and the Kuen-lun the northern. The interior has some lovely valleys, like Kashmir, but it is more usually broken into rocky ravines, through which the affluents of the Indus force their way towards the plains; or else stretches away in those vast treeless uplands, which are one of the chief characteristics of the range through its whole extent. The direction of this range is from east to west trending slightly to the north, while the parallel chain that bounds Siberia to the south and the outer crest of which is the Thian Shan, trends somewhat to the south; so that at a short distance to the west of Yarkand and Kashgar the great interior depression of Chinese Tartary terminates and the bounding ranges coalesce in the elevated table land of Pamir. The ascent from Yarkand and Kashgar westward to the table land of Pamir is almost imperceptable: and when that lofty position is gained, where the average elevation is probably as much as 15,000 feet above the sea a vast open plain is seen which stretches from the valley of the Jaxartes in one direction, across the head streams of the Oxus to the top of the Kashgar or Chitral valley in another. This plateau may be 700 or 800 miles in extent. It is studded throughout with lakes; and from it, descend four great river systems. The Narym which is the main stream of the Jaxartes, runs through a long luxuriant valley between the culminating ridge and outer range of the Thian Shan, and drains all the northern range of the plateau. The Oxus rising in the Sari Kul or yellow lake of Pamir, at least 300 miles to the south of the Jaxartes, receives from its right bank a multitude of small streams, which run to the south through rugged valleys on the south western face of the Pamir Uplands. The western face of Pamir between the Jaxartes and the Oxus is far more precipitous than the eastern. Ridges run out as far as Samarcand and Karshi, and the streams from the upland which twine amongst these ridges form the Zar-afshan and Karshi part of the water system of the Oxus, though before they reach that river they are entirely consumed in irrigation. The water system of the Indus is formed on the south eastern extremity of Pamir, where the table land is lost in the rocky summits of Muz Tagh and a number of streams drain off to the southward, forming two subsidiary Indus systems. A culminating ridget Pusht-i-khar or Ass's back, which runs out from the south east corners of thePamir plateau is the true watershed between Thibet and Kabul, the streams flowing to the southward being separated by the shoulder which joins the Hindu Kush, from the streams descending through Vakkan and Badakhshan to the Oxus, and forming the Kabul river which falls into the Indus at Attock, while those that flow to the south east are divided by the Muz Tagh range from Tartary and descend through a series of rocky valleys and precipitous gorges into the upper Indus at Little Thibet. From the eastern face of Pamir again, which slopes off very gradually into the plains of Tartary, is supplied a fourth water system, in the form of a series of small streams which, passing by Yarkhand and Kashgar are ultimately lost in the sandy desert or in some cases reach the central lake of Lobnur.

Central Asia has a hardy peasantry, dwelling in the mountain regions, with its vast upland downs well suited for summer pasture, partly decendants of the original inhabitants and in part of the many migratory races who have swept through the country. At the foot of the mountains, in the tracts of surpassing fertility, Turk, Bokhariot, Kalmuck Kirghiz, Ouigur, Manchus, Chinese, Armenians and Indians dwel in the well watered plains. Beyond thsee, in every direction is the pathless desert which has been tenanted by pastoral nomades ever since the earth was peopled. There seems from the Vendidad opening chapters in ancient times to have been a great kingdom in Central Asia. An eastern branch with its primeval seats on the Oxus, the Iranian people, who were settled between the Oxus and the Jaxartes as early as the time of the Judges of Irsael, and still hold their ground in the country, under the names of Tat, Tajik, Sert, Galsha and Parsiwan,—a primitive and not impure Iranian population, is to be found in almost every district from the Indus to the Jaxartes, and throughout the valleys of the Oxus. Very little exact knowledge is available, as to the history of the races who dwelt in Asia, in ancient times. The earliest starting points from which emigrations have been traced, are on the one hand, the pre-historic time when the Semitic races, dwelt in the land at the sources of the Euphrates on the western part of that great mountain chain above noticed : while the primeval seats of the Arians were on the slopes of the Belur Tagh, in the highland of Pamir, between the 40th and 37th degrees of N. latitude and 86th and 90th degeees of longitude. The Arians who migrated thence through the valley of the Indus, into India, notice in their writings, a territory, the Uttara-Kuru as their original dwelling places, but the site of that place is now unknown, though every Arian hindu still speaks of it. On the western slope of the Belur Tagh and the Mustagh (the Tian-Shang or Celestial mountain of the Chinese) the Haro-berezaiti (Albordsh) is likewise to be looked for, which is invoked in the Zendavista as the principal mountain and the primeval source of the waters, and Lassen has remarked that, at the present day, the old indigenous inhabitants of that district, and generally those of Kashgar, Yarkhand, Khoten, Turfan and the adjacent highlands, are Tajik who speak Persian, and who are all agriculturists. The Turcoman either came after them and settled at a later period, or else they are aborigines whom the Arians found there. What seems to have induced the Arians to leave the steppes of Pamir was some alteration in the climate induced by some vast disturbance of nature and they followed a northerly route to Sogd and not along the course of the Oxus, which would have taken them to Bactria. Chevalier Bunsen (iv. 491) indicates from B. C. 7250 to 5,000 as having seen, in Asia, the united races of the Arians and their gradual separation into the Indo-Germanic races, as Kelts, Armenians, Iranians, Greeks, Slaves, Germans, &c., and the formation of the separate races of Northern and Southern Semites, and from B. C. 5,000 to 4,000 as the period of the formation of the Arian kingdoms in Central Asia, as far as Northern Media and to Kabul and Kandahar, at which date, the Semites commenced to use written characters ; and he considers that, on the last date, B. C. 4,000 the Arians moved into the Indus valley and B. C. 3784, a powerful Chaldean kingdom was formed in Southern Babylonia. He names B. C. 3250 as the date of the building of Babylon : the birth of Abraham in Ur of the Chaldees as occurring B. C. 2927, and his withdrawal with his father to the South Western part of Mesopotamia, B. C. 2,900. These Indo-Germanic and Semitic families, from those early ages until now, have been exercising a paramount influence in the world. Klaproth includes under the designation Indo-Germanic, in Asia, Indians, Persians, Afghans, Kurds, Medes, Ossets, Armenians, and in Europe, Slavonians, Germans, Danes, Swedes, Norwegians, English, Greeks, Romans, and all the people who there speak a language derived from Latin (*Kennedy on the origin of languages, p.* 217) and he is of opinion that the wide dispersion of the Indo-Germanic race took place probably before the flood of Noah ; and that it is the only Asiatic race which appears to have descended after that event from two high mountains ; namely, from the Himalaya into India and Middle Asia, and on the West from the Caucasus into Asia Minor and Europe. In India says Colonel Kennedy, this race mixed itself much with the dark coloured aborigines and though its speech predominated its physical characteristics were deteriorated, as has ever been the case when a mixture has taken place between a white and black or brown race ; when the physical qualities of the latter, and the moral qualities of each undergo an inevitable change. (*Kennedy on the origin of languages, p.* 217) The earlier races here alluded to, however, whom the Arian immigrants found in India and encountered by the Semites in the south east of Asia seem in part to have come from a more northern and perhaps a more eastern region and in part from Africa, and the languages still current in India, the Mahratta, Guzerati, Hindi, Bengali and Panjabi on the north of the river Kistnah, with the Telugu, Tamil, Canarese, Malayalam, and Tulava amongst the nations south of that river, the former having as a basis the Sanscrit which the Arians spoke, the latter class with a Tartar origin, while they indicate the extent of the Arian intrusion into India, also mark distinctively the different origins of the two great races now in India.

There is little of written history connected with much of Asia, until comparatively recent times, and in all ages the changes have been very rapid amongst the dynasties. On this point, Chevalier Bunsen remarks (iii. 437-8) that the history of all the Asiatic monarchies is the same. Formed by great conquerors and supported by powerful armies, after a single reign or a few generations during which the energy of the founder still survives, they sink under the internal weakness of despotisms, and the enervating luxury of harem life. The heads of the dominant race, the military nobility, become gradually corrupted, and the empire built upon an artificial basis, only awaits the first shock from without to yield to some new and enterprising conqueror. Thus Babylon fell: thus fell Nineveh before it: thus fell Persia after it and so even, though in a different manner, fell the empire of Alexander. (*Bunsen, iii.* 437-8.) Amongst the earliest of the conquering nations were the Egyptians on the west of Asia, the Assyrians, the Arabs, the Greeks under Alexander, and the Tartar races. The whole of the country on the right bank of the upper Indus now known as Peshawar, opposite Attok (Taxila) and still higher up was tributary to the Assyrians as it afterwards was to the Medes and Persians. According to Pliny, Semiramis captured here, on the Kophen (the Cabul river, the Kabba) the city of the same name. That queen, in B. C. 1230 fitted out an armament in Bactria and crossed the Indus with a vast force The Indian ruler had taken up a position, there, especially formidable from the number of his archers and elephants: he retreated at first, but soon drove back Semiramis in total disorder, to the river, which she crossed after great difficulty, and with an immense loss. Semiramis concluded an armistice, made an exchange of prisoners and retreated into Bactria with a third of the army she had brought against India. The Indian king, styled Havira-pati or Shora-pati seems to have then ruled in the doab-territory south of the Saraswati (*Ch. Bunsen iii, p.* 547 *to* 550) and it seems to have been Jarasandha of Bagadha, the son of Brihadatra of the Lunar race.

The Arian hindus are tall as a race, of a large frame, and of a yellow colour, in varying shades: but the previous settlers in India are darker, with various shades of black, and shorter, in stature. It is the opinion of Chevalier Bunsen that there is a historical connexion between the Greek mythology, the primæval records of the Bible and the oldest religion of Egypt and Asia, and that primæval Asia was the starting point of the intellectual movement of the human race, and that its language was Semitico Arian, in which the Semitic or Western Asiatic element predominated: constant interruptions to progress seem to have occurred by inroads or migrations of the northern race or races whom the Greeks called Scythians. The earliest existing accounts of this people, describe them as rude and unlettered, living in various independent tribes, as not united into one nation, and perfectly unacquainted with the learning and arts of civilized society. Herodotus characterises the Scythians as the most ignorant of men, and every subsequent description of them fully confirms this. (*Sir W. Jones, in Kennedy on the origin of languages, p.* 4.) Mr. Palgrave tells us that the great Asiatic highland south-east of the Black Sea and south-west of the Caspian, has ever been remarkable for its numerous races and is now a well-head of nationalities where the people promise at no distant period to combine into new nations. This region is enclosed on the west by the torrent river Kizil Irmak, the Halys of the ancients; on the south it has the Tigro Euphrates valley and its border lands: on the east are the desert tracts of central Persia; and on its north, the Black Sea, Russian Georgia and the Caspian Sea. The highland is formed by several entangled mountain chains apparently belonging to but somewhat apart from the Caucasus, from which it is separated by the wide valley of Georgia, and the plains watered by the Rion or Phases and the Araxes. These highland mountains run N. West and S. East from the Anatolian Coast beyond Trebizond to the lofty peak of Demavend, and the neighbourhood of Tabriz or Taurus. It comprises parts of Turkey, Russia and Persia, the whole East of Anatolia, with Northern Kurdistan, both of which belong to Turkey, the Russian provinces of Erivan and Karabagh, with the Persian province of Azerbijan and in their central point is the double cone of Ararat, covered by never melting snows.

The soil is fertile up to 6,000 feet, and produces all kinds of cereals, and the "yaila" or pasture lands of vast extent rise still higher, clothed with excellent grass. In the valleys below, are the vines, fruit trees, maize, rice, tobacco and varied cultivation alternating with forests in which grow the ash, walnut, box, elm, beech, oak, fir and pine, and amongst its minerals are iron, copper, silver and lead. From its valleys, flow the great rivers, Chorook, Araxes, Tigris and Euphrates, with all their countless tributaries with other water courses, some for the Black Sea, some to the Caspian, some to the Mediterranean and some to the Persian Gulf.

The population of that mountain tract is made up of Armenians, Turkomans and Kurds, and until recently did not exceed fifteen to the square mile. But to avoid the pressure of Russian rule many of the Turkomans from the N. East and many Circassians have crossed into the Turkish dominions and many Turkomans also have joined from Persia.

If we now turn to the S. Eastern parts of Asia, the races occupying it are those named by Prichard Iranian, (also Indo-Atlantic or Caucasian) Turanian (or Mongolian); Negro; Papuan (or woolly haired races of Polynesia) to whom Pickering gave the name of Negrito; the Alfourou or Australian race, the Malay and Indian. In British India, the Aryan race occupy the North and N. West parts, commonly known as Hindustan and the Punjab. Peninsular India is chiefly inhabited by a Tamulian stock. On the borders of British India, in the N. West, North, N. East and East, are of the Mongolian stock,—the Tibetans, tribes, several populations of the Sub-Himalayan range, the Burmese, the Siamese, the Natives of Pegu, the Cambojians, the Cochin-Chinese and the Chinese. In the south of the Malay Peninsula, in the Andamans, in the Arru group of Islands of the Archipelago, in New Guinea are negro races and the Malay race extends from Sumatra into most of the Archipelagic islands.—Ch. Bunsen notices that in Eastern Asia are countless tribes and races, on the confines of the Semitic and Aryan races, but occupying a large portion of Central Asia and nearly the whole of Northern Asia to the extreme North of Europe. These present the widest diversity of degrees of culture and in their developement of languages, from that of Thibet only just beginning to advance beyond the use of monosyllables through the Tatar Turkhism, up to the elaborate refinement of the Turkish, Finnic and Magyar, offshoots from the same stem. Among some of these people, religion is in the early stage of nature worship: in some, it has given a Turanic form to buddhism, Christianity or Mahomedanism. But wherever we find Turanians, we find a tendency, a yearning, to transport themselves out of ordinary life into a state of enthusiasm, which in its highest grade rises to ecstasy and carries the votary quite out of his senses. It is their view of the relation of man to God, their mode of access to a more exalted consciousness. It is this to which Europeans apply the budhistic word Shamanism. It is an ecstatic condition which they produce by physical excitement of the mind. The Mongolian races of North America refuse nourishment till nearly dead of hunger, with the object of producing a clairvoyance, and this is the end, constantly sought for by the use of intoxicating drinks, the noisy beating of drums and tambours and all kinds of deafening and overpowering music which are the invariable accompaniments of all Turanic modes of excitement, as also of the giddy revolving dance, customary with them. The Turanian mind sees in the world of nature, powers and spirits of which he stands in awe. It stands in fear of the invisible. Everything around is full of spirits and it is to exorcise such and avert the influence of the evil eye that he strives to work himself into a condition of excitement, to become an equal match with the surrounding spirits. The belief in magic is universal amongst all Turanian tribes. The Turanian form of Government is a sanguinary despotism, tempered at best by a military aristocracy.—*Bunsen's God in History Vol. i. p.* 236 *to* 240. Mr. Logan says of the races of the south-east of Asia, that the Chinese head when viewed from the front has a strongly marked physical relation not only to all the races of the Mongolian type, but in a much closer or more special manner to the Tibetan tribes, the American Indians and some of the eastern Asianesian tribes, in all which one of the prevailing Chinese types may be traced. Numerous examples of the elongated head, obtusely wedge-shaped cranium, and arched nose of America and New Zealand may be seen in every assemblage of Chinese in Singapore. The occipital truncation remarked in America and Polynesia is common in south-eastern Asia. It is very strongly marked in the Lau race. The Tibetan tribes have the rise of the skull at the coronal region, but the other characteristics are wanting. The heads of the American men of Dr. Prichard's Natural History of Man resemble those of the Chinese. The prominent lateral expansion of the zygomæ is comparatively rare in the Chinese as in the Americans. The Sumatra Malays have much more frequently the typical Mongolian head, as have also the allied tribes of the Irawadi basin, with whom they are most nearly connected and whence they have undoubtedly derived their physical stock. The Chinese-like tribes of Ultra-India appear to have intruded into an ancient harmonic formation that extended from the Himalayas to Tasmania, and it is more probable that their languages were partially influenced by the native ones than that, on their first emergence from the western highlands of China, a change occurred. If the Burman stock was a tribe ejected from the Alpine polytonic province on the north east of Ultra-India, and cut off from all connection with its kindred Alpine tribes, the difference between the Burman phonology and the Chinese might have been affected by internal decay. But it cannot be assumed that it was so. Burman may be a fully polytonic formation akin to Chinese and partially modified by the influence of harmonic Turanian languages with which it came in contact. A searching comparative analysis can alone solve such questions. The Indo-European formation can, with much probability, be referred to one small province in the south east of Asia, where it must at one period have characterised the single language of a single tribe. The nature of this formation, and its relation to the conterminous languages, prove that it is of comparatively recent and rapid expansion, and consequently of little comparative importance in the investigation of the ethnology of the world or of any one of the multitude of languages which are connected with other and older diffusions. The Japanese, northern Chinese and the principal north American races, do in fact so strongly resemble each other and differ so considerably from the Ugro-Scythic and allied Asiatic races and from the Esquimaux, that there can hardly be a doubt that they are descended from the same east Asiatic stock. But even if this is admitted, the western affinities of the Japanese and American languages would prove that there was no direct connection between the latter and the Chinese. The Japanese people may be Chinese but the language is Fin much more than it is Chinese. On the whole, no other conclusion can be drawn from a comparison of the African, the pre-Iranian, European and the north Asiatic languages with the American, than that, before the latter spread into the New World, formations akin to it predominated throughout the Old, save in the secluded tracts protected by the great southern mountain systems extending from Caucasus to Shan Garjan, and that the present mid and northern Asiatic formations are modifications of the ancient ones, caused, in all probability, by the perennial influence of the crude formations of civilised southern races.

The following are the principal Asiatic rivers and their lengths, viz.

Yeneisy and Selenga, Siberia... ...	3550
Kianku, in China...	3290
Hoang-Ho...	3040
Oby and Irtish, Siberia	2890
Lena, ... ,, ...	2550
Amour, Tartary	2500
Mekon, Cambodia...	2200
Burhamputar, India	2000
Euphrates, Asiatic Turkey	1900
Indus, India...	1906
Thy-lu-nun, Burmah...	1860
Ganges in India...	1850
Irawadi, Burmah...	1280
Gihon or Oxus, Central Asia ...	1200
Tigris, Asiatic Turkey	1160
Garrah, Panjab...	1000
Godavery, Peninsular India... ...	850
Jumna, India	800
Gogra... ,, ...	780
Nerbuddah ,, ...	780
Benjer, Borneo	570
Jordan, Canaan...	176

—*Journ. of the Ind. Arch.* December 1852, p. 675. *Elphinstone's Kingdom of Kabul*, p. 85. *Bunsen's Egypt's place in Universal History. Bunsen's God in History. Mr. Palgrave in Cornhill Magazine* 1868. *Kennedy on the Origin of Languages*, p. 4, 217. *Journal Indian Archipelago*, p. 663. See India 354, Javan, Kurdistan, Lud, Polyandry; Kandahar, Kelat, Kling, Kambogia, Koh, Koros, Central India, India, Magnetic needle, Palms, Semang, Tungus.

ASIA ISLANDS, in the Gillolo Passage, are three low level islands, the most south-westerly of them being in lat. 1° 0′ N. and 24 miles N. E. of Aiou Islands.—*Horsburgh*.

ASIA MINOR. See India, p. 333. Javan Kurdistan, Lud, Polyandry.

ASIATIC OR ORIENTAL SOCIETIES are found in almost every country of Europe and in each of the Presidency towns of India, most of them publish journals. The Asiatic Researches commenced in 1783, with Warren Hastings as patron, and Sir William Jones and Charles Wilkins on the committee: they concluded with its 20th volume in 1839, but are continued in the Journal of the same society.

ASIATIC PENNY-WORT. ENG. Hydrocotile Asiatica.—*Linn.*

ASII OR ASIANI, are nomades who took Bactria from the Greeks, and who Mr. Prinsep considers to be Scythians of Azes, who overpowered the Greek dynasties in Soghdiana and northern Bactria between 140 and 130 B. C.

ASIL, ARAB. HIND. A maid servant.

ASIL-DURGAH, or Asilghur, supposed by Prinsep to be the town of Junaghur, q. v.

ASINUS, the Ass. Much confusion prevails as to the species of this genus, resulting apparently from naturalists describing them from imperfect skins and from animals at different ages, and of different sexes. Two Tibetan wild animals are enumerated, the Equus Kiang of Moorcroft and the Equus Hemione of authors, as found generally throughout Tibet. But Mr. Hodgson, states that there is no species of wild horse in Tibet and only one species of wild Ass, the "*Kiang*," which Moorcroft named the Equus kiang, but to which Mr. Hodgson applied two names, viz., Asinus equioides, and Asinus polyodon. Mr. Bligh retains the term A. equioides as the wild Ass or the Kiang of the Tibetans and common on the plains of Tibet. Dr. Horsfield considers As. Kiang, Eq: Kiang and As. Polyodon to be synonymous. The following species of the division Asinus, as defined by Gray, are now likely to be generally acknowledged:—

Asinus Quagga. The Quagga is obtained from the Cape territories, and is scarcely found northward of the Gariep or Orange river: but still in great herds southward, associating with the white tailed Gnu, as A. Burchellii does with the Brindled Gnu, and both with ostriches (as in Xenophon's time the A. hemippus did in Mesopotamia). The most horse-like in structure of any; the Hippotigris Isa bellinus of Col. C. H. Smith is probably founded on a Quagga foal, perhaps not very exactly represented. Such an animal as this, or as the "Isabelline Zebra" of Levaillant could not have been overlooked by all subsequent explorers of South Africa.

Asinus Burchellii, Gray, (Equus zebra of Burchell). The Damo, or original Hippotigris of the ancients and also the original Zebra of Pigafetta from Congo; but unknown to Buffon, who regarded the next, or Mountain Zebra, and the Quagga as the two sexes of one species, denominated by him the Zebra (Hippotigris Burchellii and H. antiquorum of H. Smith,) extensively diffused over Africa, even to Abyssinia and to Congo, and southward to the Gariep river.

A. Zebra, (Equus montanus, Burchell). The Zebra of modern nomenclature, or (more distinctively) the mountain Zebra; Wild Paard (Wild Horse) of the Dutch colonists of South Africa. A thorough mountaineer, and known only to inhabit South Africa. Also the most completely striped of any, down to the very hoofs.

A. *Vulgaris*, Gray (E. Asinus, Z.) The true Onager, Onagrus, or aboriginally wild Ass. Indigenous to North East Africa, if not also to the Southern parts of Arabia and the Island of Socotra.

A. Hemippus; E. hemippus, Is, St.—Hilaire; E. asinus onager, apud Wagner. The Hemionus or Hemippus of the ancients. Inhabiting the deserts of Syria, Mesopotamia, and the northern parts of Arabia.

A. Onager. (E. asinus onager, Pallas). The Koulan or Ghorkhur, Inhabits West Asia, from 48° N. latitude Southward to Persia, Beluchistan, and Western India.

A. Hemionus. (E. hemionus, Pallas; E. Kyang, Moorcroft; E. polyodon, Hodgson). The Dshiggetai or Kyang. Inhabits Tibet, and thence northward through the Gobi Desert into Mongolia and Southern Siberia.

So far as known for certain, the last two, A. onager and A. hemionus are distinguishable by shades of colour only, and by unimportant differences in the relative extension of different hues and markings. The A. hamar of Col. C. H. Smith is rejected, as having been founded on insufficient evidence of the existence of such an animal. It is highly improbable, also, that other wild asinine species yet remain to be distinguished.

It would seem from the above. That the true Onager and Hemionus of ancient writers were unknown to Pallas, who has assigned these names to cognate species or races that were unknown to the Greeks and Romans.

That, accordingly, the Koulan of N. Asia is not the true Onager or aboriginal Wild Ass, but that it is identical with the Ghor-Khur. That the true Onager, or wild Ass, is not an inhabitant of North Asia, but of the North-East of Africa and the Southern part of Arabia.

That the Koulan and the Dshiggetai or Kyang, instead of being strongly distinguished apart, bear so exceedingly close a resemblance that no decided specific distinction has yet been satisfactorily pointed out, however probable it may be that such distinction may exist. Why, therefore, the one should be popularly styled, " wild horse," and the other a " wild Ass," it is difficult to comprehend. Even Pallas terms the Dshiggettai " un Cheval sauvage," though describing it as " ni Cheval ni Ane ;" while the other he both designates as the Ass of the steppes and as the "Cheval ou Ane," employing the word " Cheval" in its German equivalent evidently in the sense of equus. Col. Chesney, as we have seen, terms the Arabian A. hemippus as " wild Horse," as distinguished from his wild Ass of South Arabia. The fact seems to be that the vague application of these names has resulted merely from the colouring.—(*Mr. Bligh in the Annals and Magazine of Natural History*, p. 252-254.)

It has been supposed to be the wild Ass of the Runn of Cutch, that is alluded to in Job, " Who has sent out the wild Ass free? Or who hath loosed the bands of the wild Ass? Whose house I have made in the wilderness, and the barren land his dwelling. He scorneth the multitude of the city, neither regardeth he the crying of the driver. The range of the mountains is his pasture, and he searcheth after every green thing."

The Persians, Tartars and ancient Romans eat the wild Ass, and with Roman epicures a haunch of wild Ass roasted was a favourite dish. Olearius affirms that he saw 32 wild Asses slain in one day by the Shah of Persia and his Court, and that the bodies were sent to the royal kitchen at Ispahan.—*Horsfield's Catalogue*, p. 191. See Ass.

ASINUS EQUIOIDES. See Horse.

ASINUS HEMIONUS. Rubruk relates that he saw in the solitudes of Tartary asses that resembled mules, and he probably speaks of the animal called the *hemi'on*, which Messrs. Huc and Gabet often met with in numerous herds during their journey from Pekin to Lha-ssa, through the Mongolian steppes.—*Huc's Christianity, Vol. I*, p. 225.

ASINUS ONAGER. See Gorkhar.

ASINUS POLYODON. See Horse.

ASIR, an Arab tribe, of whom the Berekede are a branch. The Berekede are said to allow strangers to visit their wives, like the Jakuri Hazara.

ASIRGAR, a fort in Kandesh: on a seal found there, of the 10th or 11th century, engraved in Sanscrit, mention is made that the Rajas Aditya Varma and Isvara Varma were married to the eldest daughters of the Gupta race, which may be that of the Allahabad inscriptions and Kanouj coins. If so, the Deva Nagari of the inscription would confirm the belief of the Guptas being of the ninth and tenth centuries. The Rajahs were probably Princes of Kandesh. —*Cal. As. Jour. Vol. V*, p. 482.

ASKA, a town in India in L. 84° 48′ E. and L. 19° 35′ N. It is in the district of Ganjam and sugar is its chief product.

ASIR-VADAM. See Hindoo.

ASKALANDA, a town mentioned by the ancient Arabic writers, has been supposed to be the Alexandria built at the confluence of the Acesines with the Indus. But it was also called Askalanda Usa, and seems to be the Uchh of modern times.—*Elliot.*

ASKELON lies to the westward of the road to Gaza, and near the sea. It was once a satrapy of the lords of the Philistines, but at the present day is without a single inhabitant within its walls. Askelon was taken by the Crusaders, who strengthened the fortifications, but it was subsequently re-taken by Salah-ad-din, who destroyed the works made by the christians —*Robinson's Travels, Palestine and Syria, Vol I, p.* 22.

ASKOT, a town in India, in L. 80° 20′ E. and L 29° 45′ N.

ASKHAR. ARAB. Jatamansi, Lemon Grass.

ASLESHA. SANS. The mansion, sign, or asterism of the serpent, called also Sarpa. See Serpent.

ASL-US-SUS ARAB. اصل السوس root of Glycyrrhiza glabra; Liquorice.

ASNA, two towns in India, one in L. 86° 26′ E. and L. 24° 36′ N. the other in L. 87° 3′ E. and L. 24° 7′ N.

ASNAHA, a town in India in L. 86° 10′ E. and L. 22° 24′ N.

ASNEA, a town in India in L. 87° 19′ E. and L. 24° 21′ N.

ASNEE, a British military cantonment in the lower Derajat.

ASOCA. See Asoka.

ASOF JAH, the first of the present dynasty of Hyderabad in the Dekhan, hence the title, Asof-Jahi of the dynasty. The ruler in 1868 bore the title of Asof ud Dowlah. *See Hyderabad.*

ASOF-UD-DOWLAH. See Jews. Kalmuck.

ASOGA. SANS. Uvaria longifolia.

ASOJ, the last day of this month ushers in the hindu winter (*surd rit*). On this day, nothing but white vestments and silver (*chandi*) ornaments are worn, in honor of the moon (*Chandra,*) who gives *his* name to the

> Pale and common drudge
> "'Tween man and man."

An intercalary month is the mode followed by hindus to adjust the annual seasons, their ordinary calculations being by Lunar months, and such are called *Lunar*. On the Asoj there is a procession of all the Rajpoot chiefs to the Chougan; and on their return, a full court is held in the great hall, which breaks up with "obeisance to the lamp" (*jote ka moojra,*) whose light each reverences. When the candles are lit at home on this day every Rajpoot, from the prince to the owner of a "skin (*charsa*) of land," seated on a white linen cloth, should worship his tutelary divinity, and feed the priests with sugar and milk.—*Tod's History of Rajasthan.*

ASOKA, SANSC. TAM. In the south of India, Asok, or Asoka is the name of the Uvaria or Guatteria longifolia.

ASOKA, SANSC. *from* "a" not, and soka, sorrow, is the Jonesia asoca Roxb. which yields a beautiful flower diversified with orange, scarlet and bright yellow tints and in hinduism is consecrated to Siva; as the lotus flower, called Kamala or Padma, is sacred to Vishnu and his wife Lakshmi; a sweet scented jasmine (J. undulatum) to Vishnu and Mariamma the goddess of the pariah or servile race. The superb crimson Ixora bandhuca is offered at the shrines of Vishnu and Siva, and the Nauclea cadamba a stately tree, yields in the hindu belief the holiest flower in India. The Asoka is one of the most beautiful of Indian trees. Sir W. Jones observes, that 'the vegetable world scarcely exhibits a richer sight than an Asoka tree in full bloom. It is about as high as an ordinary cherry-tree. The flowers are very large, and beautifully diversified with tints of orange scarlet, of pale yellow, and of bright orange, which form a variety of shades according to the age of the blossom.' In spring, it bears beautiful red blossoms. The Asoka is sacred to Siva, and is planted near his temple. It grows abundantly in Ceylon. In Hindu poetry disparing lovers very commonly address objects of nature, clouds, elephants, and birds, on the subject of their lost or absent mistresses. (See the Megha duta, the 4th Act of the Vikramorvas′i, and the 9th Act of the Malati M′adhava.)

In some places in India it is more esteemed than at others The women bathe in some holy streams with the blossoms floating in it. The hindoos say that the contact of the stem of the Asoka tree with the foot of a woman of superior beauty, is supposed to make it blossom. This tree is often alluded to in Select Specimens of the Theatre of the Hindoos, translated by Mr. Wilson. In the 'Toy Cart,' Maitreya says, describing a garden— "And here the Asoka tree with its rich crimson blossom, shines like a young warrior bathed in the sanguine shower of the furious fight." Captain D. L. Richardson, however, (Flowers and Flower Gardens, p. 189), says that the flower is small and yellow, and is eaten by young Hindoo women as a medicine. Voigt, also, says its flowers are of an olive yellow colour. These differences as to the colour of the flowers arise from their changing during developement. They are numerous and pretty large and are fragrant during the night. When they first expand, they are of a beautiful orange colour, gradually changing to red, forming a variety of beautiful shades. Coleman says that men and women of all classes ought to bathe, on a particular day, in some holy stream, especially the Brahmaputra, and drink water with buds of the Asoka floating in it. Sita is said to have been confined in a grove of it while in captivity by Ravana: other relaters say she was confined in a place, or house, called Asocwan.—*Coleman's Mythology. Lady Faulkland's Chow-Chow. Roxb. ii.* 218. *Richardson's Flowers and Flower Gardens. William's Story of Nalc p.* 117.

ASOKA the first king of Magadha, was the son of Sis South Sisunaga was the minister and mil striped of of the Maurya family, the fo which family were all A. *Vulgaris*, Gray (E w the last of the Mau- true Onager, Onag , Asoka the 1st, formed Ass. Indigenous ya dynasty. Asoka's mother not also to the d of the dancers of a king of the Island of Vaisali and subsequently became *E. Hemi* The Brahmans gave to Asoka I, Hilaire ; F name of Kaka-Varna, or raven black, Hemios to their hatred of Asoka II, who so greathal patronised buddhists.—*Bunsen iii*. 542.

ASOKA II. grandson of Chandra Gupta, began to reign B. C. 255-6, and for the next few years, he was styled the "Furious." Immediately on his father's demise, he seized the government and gave orders for the slaughter of all his brothers save Tishya, who was born of the same mother, and immediately applied his whole energies to the achievement of military glory. In the short space of four years, he reduced the whole of northern India from the mountains of Kashmir to the banks of the Nerbudda, and from the mouth of the Indus to the Bay of Bengal, but afterwards became a convert to the buddhist religion. His conversion occurred B. C. 251-2, and thenceforward, he was known as the pious: but in his conversion he carried his fiery character into his new faith, and in four years, compelled the whole of Northern India from the mountains of Kashmir to the banks of the Nerbudda and from the mouths of the Indus to the Bay of Bengal to receive his own buddhist views. He distributed throughout the chief cities of India, the relics of Sakya, which had been collected by Ajatasatra and deposited in one large stupa at Rajagriha, and he erected a great number of vehara or buddhist monasteries. He also issued numerous edicts, which he engraved on massive rocks and stone pillars, or columns, evidently in imitation of Egyptian obelisce, in which buddhist doctrines are earnestly inculcated. The oldest of these are found at Dhauli in Kutack ; at Girnar in Guzerat and at Kapurdigiri near Peshawur, and in all these, he styles himself Priyadarsi, "the beloved of the Devas." Professor Wilson, however, doubts this identity of Asoka with the Priyadarsi who published the edict. The name is also read Piyadasi or Loving minded. Asoka defeated Antiochus and graved in the Pracrita an account of his victory on certain rocks. After he succeeded to the throne B. C. 255-6, he was crowned in Pataliputra, in the third year of his reign, before Christ, 252-3, after which he reigned thirty-seven years. After his installation, when he openly seceded from the brahmanical to the buddhist religion ; his conversion seems to have been effected by the son of his brother whom he had murdered. In his zeal he erected 84,000 buddhist sanctuaries or Chaitya, partly temples and partly tumuli, called Sthupa or Topes, which to the present day continue to be the greatest monuments of the buddhism of Central and Western India and Hindustan. In B. C. 246, he held a third buddhist council at Pataliputra (Palimbotha.) In his rescript to the council he mentions a collection of several hymns or gatha, of Buddha, as also of Aphorisms. Asoka died B. C. 222, after a long and prosperous reign of forty-one years. The Asoka era has been ascertained to be B. C. 250, probably dating from Asoka I.

Asoka II was contemporary of Selcucus Nicator. He sent ambassadors to the rulers n Egypt, Cyrene, Syria and Macedonia. He was to buddhism, what Constantine was to christianity. Asoka II removed the royal residence from Rajagriha in the South to Pataliputra, and was succeeded by his eldest son Bhadrasena, and his nine brothers in succession. Immediately after his death, the Magadha dominions were broken up and anarchy followed.—*Bunsen iii.* 544 ; *Thomas' Prinsep's Indian Antiquities. Cunningham's Bhilsa Topes. Bunsen iii.* 542. See Cyclopædia of India, articles, Buddha ; India 322, 363 ; Inscriptions 373, 385, 391 ; Junaghar ; Kabul 437 ; Kumala ; Lat.

ASOKAM. Tel. అశోకం. Guatteria longifolia, *Wall.—W. and A.* 35 ; *Ic.* 1.—Uvaria longif. *R.* ii. 664. This name is everywhere applied to Guatteria longifolia in the south where the true Jonesia asoka is rarely seen. See Asoka.

ASP. Boten. Arab. Peten. Heb.

The Asp is mentioned in Deut: xxx. 33. Job xx. 14-16 : Ps. lviii. 4 : xci. 13, and Isaiah xi. 8, but though supposed to be some kind of serpent, naturalists have not determined the particular reptile alluded to. The word is probably very ancient, and is possibly the "Oub" serpent worshipped in Chaldæa and Egypt, and obion is said to be still used in Egypt as Afa and Afi is in Arabia, to designate a snake, and the Greek term οφις is the same. Perhaps the English Oaf and Scotch Ouf, are also connected. See Serpent.

ASPA, was the ancient Persian name for horse, (in the modern Persian it is Asp) and in the Scythian names Aspabata, Aspakara, and Asparatha, we recognise the same element. Even the name of the Aspasian mountains, placed by Ptolemy in Scythia, indicates a similar origin. *Muller's Lectures, p.* 231.

ASPALATHUM WOOD, is supposed to proceed from the Aquilaria in a state of decomposition, but of this nothing is known with certainty. Rhodes wood (Convolvulaceæ) has also been called "Aspalath."—*O'Shaughnessy, page* 314.

ASPALATHUS INDICUS. Linn. Syn. of Indigofera aspalathoides.—*Vahl.*

ASPARAGUS, of this genus of the Liliaceæ, Roxburgh (ii. 150) mentions five species but Voigt (674) gives a list of eleven, viz. :—

A. Æthiopicus. Linn.
A. Asiaticus
A. acerosus. Roxb.
A. Capensis Linn.
A. curillus Buch.
A. falcatus. Linn.
A. lanceus. Thunb.
A. adscendens. Roxb.
A officinalis. Linn.
A. racemosus. Willd.
A. scandens. Thunb.

ASPARAGUS ACEROSUS. Roxb. Sheet-ma-tet, Burm. A charming shrub, a native of the interior of Bengal and the Tenasserim provinces, which produces a passable substitute for the English vegetable, to which, however, it is much inferior. It bears a sweet-smelling flower, and is deserving of cultivation as an ornamental plant.—*Mason. Roxb. ii.* 150.

ASPATI, An emperor is called the Aspati, meaning perhaps Aswapati, 'lord of steeds.'—*Tod's Rajasthan, Vol. ii. p.*

ASPARAGUS ADSCENDENS. *Roxb.*

Syn.

Asparagus sarmentosus. *Willd.*

Linear leaved Asparagus	Eng.	Safed-musli.	Hind. or Duk.
Chrimbroy Aspar-	„	Shtawari	Malay.
Saffaid-musli ...	Duk.	Shadaveli	Maleal.
Seta-ver	Hind. of Lahore.	Shatawi	„
Sitta-ver	Hind. of Lahore.	Sheta-vurri	Sans.
		Tannir-vittang Kelanga	Tam.
		Tsalla-ghadda ...	Tel.
		Challa ghadda ...	„

A climbing shrub, found in Rohilcund, Travancore and the Peninsula. The root, which is long, white, and fleshy, is bruised and soaked in water, and the latter, if drunk, is said by the natives to be a remedy in preventing small-pox from running into the confluent kind. In Ceylon, the root is mixed with milk and eaten (*Ainsl.*) and by the Chinese, it is made into a preserve, and also candied. Dr. Honigberger, (p. 237,) says that the stalks, he procured at the bazaar at Lahore, were as long as a finger, and as thick as a quill, rather spiral and longitudinally indented, of a horny yellow semi-transparent appearance, of a mucilaginous, sweet and astringent taste. They are used as a substitute for salep and in native medicine and in China are candied and used as a preserve.—*Roxb. ii.* 153 *Honigb. p.* 237. *Voigt,* 674. *Hog,* 735.

ASPARAGUS BEAN. See Dolichos Sinensis.

ASPARAGUS OFFICINALIS. *Willde.*

Marchoobeh... ...	Arab.	Nakdoun...	...Hind.
Yeramya... ...	„	Akar-parsi	...Malay.
Common Asparagus	Eng.	Margeeah...	...Pers.
Halyoon...	Arab. Hind.	Mar-chobah ...	„

In India as in Europe, this is found only in a cultivated state. It is, remarks Mr. Jaffrey, a very delicate vegetable, raised from seed, takes four years to come to a proper size for the table, and ought not to be eaten before the fourth year; the seedlings, when one year old, should be planted in well prepared beds raised three inches above the surrounding level; three years after being transplanted they will produce a crop if the beds have been annually top dressed with decayed leaves, and manure. A little salt sprinkled over the beds once a year during the rains, will be useful to the plants. It is a very expensive vegetable to grow in any country.—*Jaffery.* Dr. Honigberger mentions that the hakims use the seeds in debility of the stomach, in liver, spleen and renal disorders; they also attribute to them diuretic and aphrodisiac properties. They believe that the cultivated is more effective than the wild plant. The country asparagus or country greens of the British in India, are the stalks of the Amaranthus oleraceus.—*Rox. ii.* 150. *Voigt,* 674. *Hog.* 735. *Honigberger,* 237. *Jaffrey's Hints. Hog,* 734-5.

ASPARAGUS RACEMOSUS. *Willde.*

Seeth-muli	Beng.	Challa ...	Tel.
Sada-bori	Hind.	T'slla gaddalu ...	„
Akar-parsi	..Malay.	Pilli-pi'chara ...	„
Wari	Maleal.	Fillitoga ...	„
Suta mulli	Sans.	Satavari	„

A shrubby climbing plant a native of various parts of India and of Ceylon, its flowers appear in the cold season, and perfume the air to a considerable distance with their delightful fragrance; root used medicinally.—*Roxb. ii.* 152.

ASPAWUN, a town in India in Long. 76° 24′ E. and Lat. 24° 30′ N.

ASPEN TREES occur in Japan.

ASPERGILLUM, a curious genus of Molluscs, some of which are found in Indian Seas. A. Javanum in the Indian Ocean and A. vaginiferum, in the Red Sea. See Tabicolidæ.

ASPHALTE. Eng.

Hajar Ul Musa	Arab.	Asphaltum ...	Lat.
Bitumen	Eng.	Asphaltum Persicum	Lat.
Compact „		„ Panjabinum	„
Jews pitch	„	„ Selajit ...	„
Mineral „	„	Momai ...	Pers.
Maltha ...	„	Asphalto ...	Port.

The British name for this substance is derived from the Lake Asphaltites, and the substance is found in several countries, but the term is also applied to a compound made from the natural product mixed with other matters. It is found on the surface of volcanic productions; and floating on the Asphaltic Lake or Dead Sea in Syria. It is also found near ancient Babylon, and it is supposed that the cement used for the walls of that city as also for the temple of Solomon, was a preparation of Asphalte, and Herodotus mentions that it was heated and mixed with reeds and so used. It is supposed to be the substance translated in the Bible as pitch and to have been used by Noah to coat or pay the ark and by the mother of Moses to coat the vessel in which he was laid afloat, and it seems to be the substance known in central Asia and in the north of Persia under the name of Momiai. At one time, Asphalte composition was overlauded as a roofing and paving material, and in consequence soon fell into unmerited neglect. Where damp has to be resisted, it is useful, it is found impervious to wet, white ants or vermin, and as it does not vegetate, rot or decay, it is superior to wood, or mortar as a flooring material. Dr. Honigberger (p. 238 and 239) writing of the Persian Mumia—says that it is a certain specific in fractured bones, deserving the name of osteocolla. It is a solid, hard, heavy, black, glistening mass without any particular odor. The genuine is but seldom to be met with even in Persia itself, the place of its origin, for the king of Persia is reported to collect the whole product yearly and to inclose it in small silver boxes, which are distributed as presents to his family and friends. In all Eastern bazars may be found under the name of Persian Mumiai, a compound resembling the genuine in appearance. According to Dr. Seligmann, Mum, in Persian, signifies wax; lai or Ajin is the name of the village in the vicinity of which the spring of water containing Mumiai or Mumiajin is found The Mumiai was discovered in the time of Feridun. He also says that the *Asphaltum Selajit, Asphaltum Punjabinum* or Punjab Asphalte, is an officinal article at Lahore, brought from the hills. The hakims and hindoo doctors use it instead of the Persian Mumiai in cases occurring from exterior violence.—*Honigberger, p.* 238-9. *Bingley i.* 150. *Foole's Statistics of Commerce, p.* 14.

ASPHOTA. BENG. Jasminum sambac. Jasmine.

ASPIDIOT SHIELDED SAURIAN. See Crocodilidæ.

ASPIDISTRA, KER., a genus of the natural order Smilaceæ, of which A. lurida, KER and A. punctata, *Lindley*, occur in China.—*Voigt.*

ASPIDIUM, LINNÆUS. Of this genus of ferns of the order Polypodiaceæ, several species are known in India, the A. splendens, and parasiticum, described by Mr. Graham, the unitum and flagelliferum, in Voigt's Catalogue; and Dr. Hooker mentions that both in Sikkim and Nepal the watery tubers of an *Aspidium* are abundantly eaten.—*Hooker, Him. Jour. Vol. i. p* 292. *Voigt.* 734.

ASPIDIUM BAROMETZ, the Tartarian lamb, so enthusiastically described by Darwin in his Botanic garden, has long been celebrated in China. The ingenuity of Chinese gardeners, taking advantage of the natural habits of the plant, form it into a shape resembling a sheep or other object.—*William's Middle Kingdom, p.* 275.

ASPIDOCARYA UVIFERA, *H.* et. T. This interesting plant is one of the Menispermaceæ. It is a native of Sikkim, where it is found at elevations of 1000 to 5,000 feet. *H. et. T. p.* 189.

ASPLENIUM, a genus of the Polypodiaceæ. A. nidus. Linn. is a native of Amboyna.

ANASPHENIUM, a plant of Kaghan, is there called "Kanji."—*Voigt. Cleghorn.*

ASPORE, a town in India, in L. 77° 59 E. and L. 25° 15′ N.

ASR. ARAB PERS. HIND. Noontide, a time of mahomedan prayer. Owing to the mahomedan divisions of time, into watches of the day, and night, apportioning the whole day and the whole night into stated watches, all the periods of the day change with the varying length of the time that the sun is above the horizon, the Asr or noon day watch excepted, it being always when the sun is at the meridian.

ASRAMA. SANC. In hinduism, the fourth or mendicant stage of life, in which the hindu should enter after passing through the previous stages of student, householder and hermit. It is a name borne by the Dandi sect. See Dandi.

ASRAYA, in the buddhism of Ceylon, four modes of evils, so called.—*Hyder's Eastern Monachism, p.* 434.

ASRESSAR, a town in India, in L. 86° 14′ E. and L. 20° 26′ N.

ASROENE, called also Sarug, towards which Terah, father of Abraham journeyed in his route from Ur of the Chaldees towards Horan (Karra) on his way to Canaan. See Terah.

ASS.

Chamar ...	AR.	Chamor ...	HEB.
Khamar ...	,,	Gadda	HIND.
Hamar ..	,,	Hymar	TURK.
Donkey ...	ENG.	Kalda	TAM.
Jack or Jenny Ass	,,	Gardhi	TEL.
Æhmire ...	ETHIOP.		

Four species of the Ass besides three of Zebras have been described by naturalists, but the domesticated Ass is descended from the Asinus tœniopus of Abyssinia. In Syria, are four domestic breeds, a light graceful animal, with a pleasant action used by ladies; an Arab breed kept for the saddle; a stouter animal for ploughing and other purposes, and the large Damascus breed, with a peculiarly long body and ears. The Ass can with ease be greatly improvod in size and strength. The Ass is occasionally striped or barred as in the parent form A. tœniopus: that on the shoulder is the most constant, sometimes even triple barred, but bars also occur on the legs. Albino Asses are occasionally seen. (*Darwin p.* 63, *Animals and Plants*). A notice of the Ass tribe has been given under the generic term Asinus, with the species pertaining to that genus. The common Ass now found in all countries has been domesticated from ancient times. It is a patient, steady going, sure footed beast of burden, and easy tempered. In ancient Jerusalem the Ass was the favourite pony of the upper classes and the priests. Deborah describes the greatest men in Israel as those who rode on white Asses, and we are told that Abdona, a Judge of Israel, had forty sons and thirty grandsons who rode on seventy asses. Nevertheless the Israelites considered the ass unclean, and to yoke an ass with an ox in the same team, was an offence against the law of Moses. The ancient Egyptians even entertained a fierce hatred towards the ass and regarded it as a symbol of all kinds of misfortune. They were the first to symbolize a stupid person by the head and ears of an ass. The Ass has a large head and a large body on very slim and somewhat short legs, unsuited therefore to move rapidly. Its hoof has exceedingly sharp rims with a hollow in its centre, to fit it for travelling on slippery ground and for ascending the precipitous sides of hills. The Ass is a beast of burden for the mountain as the camel is for the sandy desert, the elephant for the jungle and the horse for the level plain. He will carry a reasonable burden without a murmer, and he will trudge on for miles over the roughest roads, patiently and steadily, without showing any signs of fatigue. (*All the Year Round*, 10*th September* 1864.) There are two sorts of asses in Arabia, Niebuhr mentions the smaller or lazy ass, as little esteemed there as in Europe; and a larger and high spirited breed, much valued and sold at a high price and he thought them fitter for a journey than horses are. (*Niebuhr's Travels, Vol. ii. p.* 304.) In Oman they are large, well made, and endure great fatigue. The Arabs take considerable care of them; and some of the better kind fetch from forty to fifty dollars. Those which traverse the Jabel Akhdar, in point of size, sturdiness, and sureness of step, are almost equal to mules, crossing the most difficult passes, over a smooth limestone rock, without a single false step. A great many asses are shipped from Oman to the Eastern ports of Persia, and also to the Isle of France, where they are highly valued. Some seen by Burton (iii. 339) resembled mules in size and speed. He considers that Pliny is certainly right about this useful quadruped and its congeners, the Zebra and the wild ass, in describing it as "animal frigoris maxime impatiens," for he says that it degenerates in cold regions, unless as in Afghanistan and Barbary, there be a long, hot, and dry summer. Aden, Cutch, and Baghdad have fine breeds, whereas those of India and South-Eastern Africa are poor and weak. The best and the highest-priced come from the Maghrib, and second to them ranks the Egyptian race. At Meccah careful feeding and kind usage transform the dull slave into an active and symmetrical friend of man: he knows his owner's kind voice, and if one of the two fast, it is generally the biped. The asses of the Holy City are tall and plump, with sleek coats, generally ash or grey-coloured, the eyes of deer, heads gracefully carried, an ambling gait, and extremely sure-footed. They are equal to great fatigue, and the stallions have been known, in their ferocity, to kill the groom. The price varies from 25 to 150 dollars.—*Burton's Pilgrimage to Meccah, Vol. iii. p.* 339. *All The Year Round, September* 1864. *Playfair's Yemen. Niebuhr's Travels, ii.* 204. See Asinus.

ASSALIA SEED, in Marathi and Guarati (Aleeva)—Lepidium sativum.

ASSAM, a great valley stretching from the head of the Bay of Bengal to the North-East, towards China. It is the ancient Kamrup, and its history ('Assam Buranji') by Huliram Dhaikiyal Phukan, of Gohati, who, after bringing down the genealogies to the Kshatriya dynasty of Dravir (Dharmapala) says he invited brahmins from Gaur to his court, north of the Brahmaputra, gives the following dynasties:

a. Brahmaputra dynasty, reigned 240 years. After A. D. 1478, Assam was divided into twelve petty states, and in 1498, was invaded by Dulal Ghazi, son of Hoossain Shah.

b. The Indrayansa (Indu) dynasty reigned from A. D. 1330 to 1780, with the interregnum caused by the invasion of Hoossain Shah. Chukapa, became independent in 1230, and spread conquests and was named Asama (unequalled), hence Assam. The language spoken, the Assamese, is almost or identically the same as the Bengali.—*Prinsep's Antiquities by Thomas, p.* 273. This long valley runs from the eastern side of Bengal proper from the 90° of east longitude in a north-easterly direction as far as the Mishmee hills in longitude 97° east. The valley is about 60 miles in breath and 350 miles long, and has the river Brahmaputra running through its centre. It is, in fact, the valley of the Brahmaputra, and is now called Lower and Upper Assam, being bounded on the north by the Mishmee, Aboor and Meeree hills and, on the south, has the Naga, Cossya and Garrow hills. Assam in ancient times was of the buddhist faith, the braminical religion was introduced about A.D. 78. In all Assam there are 983

Mouzzahs, containing 4,006,610 Begahs, the rental of rice land is 1*s.* 10*d.* an acre and 1*s.* 6*d.* for all other kinds. The whole of Assam, omitting the permanently settled district of Goalpara, pays only £100,000 of land revenue. The whole population from the baby at the breast to the very few old men use opium, and in 1864-5 the population consumed £143,543 worth of opium. Before the incursions of the Burmese, Assam had its roads, bridges, cities and civilization, but under British rule it has fallen off. Assam, is one of the most fertile districts in India, the mahomedans found its people hardy and courageous in Upper Assam, but towards the middle of the 19 century they had become apathetic and unambitious, though those of Kamroop were less so. But the Assamese were to the mahomedans what the Numidians and Mauritanians were to the Romans, a genus insuperabile bello. The British drove the Burmese from it in 1824, and annexed it on 31st July 1829. The first Treaty with any of the Assam chiefs was a commercial agreement made in 1783, with Rajah Surgy Deo. But Government never ratified or published it, on the ground that the Rajah's government was not sufficiently strong to ensure its observance. The country subsequently relapsed into anarchy and fell under the Burmese. It was invaded by the British when the first Burmese war broke out, and the province was annexed to British India. In 1833, Upper Assam was granted to Rajah Poorunder Sing, with whom a Treaty was made. The principal tribes on the frontier of Upper Assam are the Muttock, the Khampti, and the Singpho. The Bur Senaputtee or chief of the Muttock entered into an engagement, in May 1826, whereby he acknowledged the supremacy of the British, and bound himself to supply 300 soldiers in time of war. The management of the country was left in his own hands, except as regards capital offences. In January 1835, the obligation to supply troops was commuted to a money payment of Rupees 1,800 a year. In 1826, similar agreements were made with the Khampti chief of Suddeya, but in 1839 they attacked the town of Suddeya, and many persons, as also Colonel White, the Political Agent, was slain. Agreements were also made in May 1836 with the *Singphoos.* These tribes were implicated in the *Khamptee* rising in 1839, but they were allowed to surrender under conditions. Many of the Singphoo clans have become extinct, and the main body have left Assam for Hookong, in Upper Burmah. (*Aitchison's Treaties, &c., page,* 127.) Throughout its whole breadth, from the Khassia and Naga hills up to the southern foot of the Himalaya, this valley was formerly the basin of a fresh-water lake, and is now drained by the Brahmaputra. This mighty river runs through the country from Brahmakund to Goalpara for a mean length, exclusive of its numerous small curves, of more than 400 miles. The entire surface of Assam presents a gentle uniform slope, with a few isolated granite hills, sometimes of no considerable mean elevation. The Brahmaputra nowhere presents any remarkable contraction of its bed, and the only rapid of importance is situated fifteen miles below its confluence with the Dihong. The level of the Brahmaputra at Sadia is 210 feet. A little to the south of the entrance of the Tista begins that part of the river where the stream branches off in the shape of a delta, and shortly joins that of the Ganges. The ebb and flood of the tide extend in the season when the river is low, upwards beyond Dacca; the fall from Sadia to the delta consequently amounting to half a foot per mile. Sadia is situated near the spot where the most considerable of its affluents join the Brahmaputra, viz. the Dihong (a river identical with the Tibetan Zambu) into which, before its confluence with the Brahmaputra, flows the Dihong. The Brahmakund is a very deep basin-shaped enlargement of the river, just before it emerges from the mountains to descend into the plains of Assam. The velocity of the current, which, both above and below the Brahmakund is very great, suffers a great diminution at this point. The sources of the Brahmaputra proper may be assigned to L. N. 33° 32½°, and L. E. Gr. 97° 30'. The first snow-covered mountains occur in L. N. 28½°. The Brahmaputra is called by the Tibetans, Záyö chu, after the province, Záyö, through which it flows, the Mishmi and Singpho give it the name of Tálu Ka. Its direction as far as L. N. 27° 55' is nearly due south, from the entrance of the Galum river to the Dū river north-west, and from this point to Sadia south-west. Along the whole length of the left shore of the Brahmaputra, and nearly parallel to the broad valley through which it runs, we meet with a longitudinal range of secondary hills, inhabited by the various scattered tribes of the Naga, Khassia, Jaintia, and Garro. There exists but comparatively meagre information about these mountains. The Khassia hills present in general the aspect of a well-defined plateau with comparatively small, isolated elevations. The plateau is terminated to the north by the valley of the Brahmaputra, to the south by that of the Surma.—(*Schlagentweit's General Hypsometry of India, Vol. ii. p.* 98.) Hills lie between the two British Provinces of *Assam* and Cachar and the North-Western portion of the territory of Burmah. It is an immense extent of mountainous country, inhabited by numerous mountain tribes. And in this great mountain tract one or two valleys occur. The largest—that of Munnipore—is, from its connection with the British Government, and from the tribes around it all admitting its supremacy, the most important, between latitude 23° 50′ and 25° 30′ north, and longitude 93° 10′ and 94° 30′ east, the mountain tract in question is bounded on the north and west by the British Provinces of Assam and Cachar, and on the east by the Kubbo valley now subject to Burmah. To the north-east and south, the boundary is not well defined, and would much depend upon the extent to which the Munnipore Government might spread its influence amongst the hill tribes in those directions, but in the north-east it may be denoted by a line drawn north from the north-western corner of the Kubbo valley, until it strikes the Assam boundary and in the south by one drawn west from the source of the Numsailung river, the fixed south-east boundary, till its junction with the Tooyai river. Of the space comprised in these bounds, the valley of Munnipore occupies nearly the centre. It is called by the Munniporees, "Meithei-leipak." The Burmese call it Kathe, the Bengalees, Moglai, and Assamese, Mekle. The area of the whole territory is about 7,000 square miles, and that of the central valley about 650. Much of the valley is at all seasons covered with water. It seems indeed at one time to have formed a large lake, and the piece of water in the south called the Logtak, appears to be an unfilled but rapidly filling remnant of it. From the most credible traditions, the valley appears originally to have been occupied by several tribes, the principal of which were named Koomul, Looang, Moirang and Meithei, all of whom came from different directions. For a time, the Koomul appear to have been the most powerful, and after its declension, the Moirang tribe. The population is composed of different classes. The principal is the Meithei, next the Phoongnai, after whom the Teng kul, the Ayokpa, the Kei, the Loee and mahomedan. The Meithei population is divided into four parts called "Punnah," which are designated in the order of their seniority "Kaphum," "Lai phum," "Ahulloop" and "Niharoop." The Loee population consists of people who pay tribute, and is considered so inferior that the name Meithei is not given to it. The marshes of the south in the vicinity of the Logtak afford a retreat to serpents of a formidable size, and the whole valley of Munnipore is much infested by the serpent tribe. Some of them are exceedingly active and bold as the Tanglei, it is fond of ascending bamboos, along the branches of which it moves with great velocity, and if enraged, throws himself from an extraordinary height upon the object of his anger. His bite is said to be mortal. This, added to his great activity and fierceness makes (*McCulloch, Records Government of India, Foreign Department, pp. x. xii.*) the Tanglie an object of much terror. Dr. Latham notices that the valley of Assam and its bordering hills are remarkable for the number of populations which they contain. Amongst these are the Bodo or Borro of Assam and Cachar, Garo, Kasia, Mikir, Aka, Dofla, Abor, Miri, Bor Abor, Mishmi, Muttuk, Singhpo, Jili, Naga, Changlo, Bhot, KuKi. On the south, Assam is bounded by the Garo, Khasia and Jaintia hills, then the lands of the Naga in north Cachar and Naogong: then those of the Singhpho up to the great bend of the Brahmaputra. All their native populations are more or less akin to the peoples of the Burmese empire. (*Latham's Descriptive Ethnology.*) There are many kinds of slaves in Assam distinguished by distinct appellations. The Moorukea is a kind of Chapunca, neither servant, slave, nor equal, but partaking of all. The master provides the Moorukea with a pair of bullocks and a plough, and he tills his master's land for two days. On the third day the Moorukea may plough his own ground with his master's bullocks and plough. If he does not take his reward or wages thus, by using his master's cattle and implements of husbandry. (*Butler's Travels, Assam, p.* 228-29.) The valley of Assam possesses gold, tea, caoutchouc, lac and ivory. It abounds in silk, its two principal indigenous varieties of this article, being the *muga* and the *eri*. A dress made of *muga* is prized beyond all others, by the Assamese. Of its woods, thirty-six species, applied to various useful purposes, have been described by Major Hannay as belonging to Upper Assam. Most of them are light, strong, and durable; while not a few combine with these qualities a fine grain, which renders them well adapted for articles of furniture. The spices of the country comprise, in addition to such as are commonly cultivated in Bengal, black pepper, long pepper, cardamoms, tejpatra or malabathrum leaf, and jubrang, the capsule of a species of xanthoxylum, peculiar to the country and described as aromatic, fragrant and highly pungent.—*Dr. Taylor*, 141. In the end of 1861 the Meyong Abor attacked and plundered a village in British territory, but the tribe expressed a desire to renew friendly relations, and begged that their offences might be overlooked. On the 5th November 1862, an agreement was made with them binding them tc respect British territory, and the same engagement was snbscribed on 16th January 1863 by the Kebang Abor.

On 8th November 1863 a similar engagement was concluded with the Abors of the Dihang Dibang doars. (Treaties engagements and sunuuds, *Vol. vii. p.* 343.)

Goalpara is under a permanent settlement, but the other five districts Kamroop, Durrung, Nowgong, Seebsagur and Luckimpore are under ryotwari tenure.

It is said, that opium was first introduced into Assam in 1794 from Bengal, when British troops assisted the Rajah against the Muttuck; since then it has spread over the whole country, and deteriorated and enfeebled the population.—*Dr. Taylor in Reports on Great Exhibition of* 1851. *Butler's Travels in Assam, p.* 228-9. *Latham's Descriptive Ethnology. McCulloch's Report in Records of the Government of India, Foreign Department, p.* 11. *Schlagentweit's General Hypsometry of India, Vol. ii. pp.* 95-98. *Prinsep's Antiquities by Thomas, p.* 273. See India, pp. 317; 340; 344. Inscriptions 374, Joboka;—Kashmir: Kasia: Kino: Mikir: Petroleum: Sati: Sciurus: Singhpo, Tea, Volcanoes.

ASSAMESE ROOT. Coptis teta.

ASSAMI. HIND. PERS. An individual, a non-proprietor, a hired trooper in a cavalry regiment.

ASSARET. FR. Asarabacca.

ASSARHADDON, King of Babylon, was the son of Sennacherib. The latter resided at Nineveh, the capital of Assyria; Sennacherib displaced the Satraps and invested his son as king of Babylon B. C. 675.—*Ch. Bunsen*, iii.

ASSASSIN, a term applied in Europe to the Al Hassani, a heterodox mahomedan sect who are spread through Asia from Persia to Western India. The heterodox point in their belief is that the deity is incarnate in their chief. The first of the tribe, who arrogated these divine pretensions, was Hassan Sahib; a man, whose domineering passions, consummate subtility, and persevering spirit of enterprise, perfectly fitted for his plan of imposture. He appeared about the year 1090; and by various intrigues, a singular mysterious deportment, as well as an invincible courage, few who approached him, dared to resist, Christians, Jews, Mahomedans of Omar or of Ali, that is to say, mahomedans of the Sunni or Shiah sects, all were alike the objects of his excommunication; and he sold his dagger, or rather that of his followers, to whatever party were vile enough to buy the blood of their enemies. Al Jebal, literally, the mountain, was the old [illegible]c name for the whole of the very moun[illegible]s quarter of Irak-i-Ajam, which lies be[illegible] Hamadan and Kirmanshah. It stretches far to the south-west of the Caspian range, and comprises Mount Elwund, the Orontes of the ancients, this branch also, bearing the appellation Elburz. A colony of these fanatics, [illegible]r the leading of one of Hassan Sahib's [illegible] odious representatives, settled themselves [illegible]gst the heights of Lebanon, and have been [illegible]sly called Ismaelans, Bathenians, and Assassins and during the crusades, he or one of his successors was known as the old man of the mountain. The present chief of the Ismaili has for many years past been residing at Bombay, and in 1865 or 1866, instituted a civil suit in H. M. High Court for some matter connected with his faith. The term Assassin has also been derived from Hashishi, a person given to the intoxication of hemp (Hashish, Ar.) but the accepted derivation is from Al Hassani.—*Porter's Travels, Vol. i. p.* 286-288.

ASSAWUD, a town in India in L. 75° 22′ E. and L. 23° 48′ N.

ASSAYE, a small village in L. 75° 56′ E. and L. 20° 17′ N. It is on the borders of Kandesh, near which Colonel Wellesley in 1803, defeated a large army of Mahrattas. Of the British Forces, 1 in 3 were killed. The hamlet is built on the bank of a small stream, and one of the French officers who fell in the battle has been deified and at his tomb worship is performed by the mahrattas of the village and neighbourhood. Tha battle was fought on the 23rd September 1803, by the Indian army under Sir Arthur Wellesley, against the confederate Mahrattahs. Scindiahs artillery rested on the right bank of the rivulet and beneath a banian tree, there, is the tomb of the officer whose spirit is worshipped. In 1868, the potail of the village, who was a lad, at the time of the battle,— subadar, Papadu, of the 21st M. N. I. wh[illegible] a soldier present in the battle, were still [illegible] the former at Assay, the latter at Secund[illegible]

ASSAY MASTER, an officer with this [illegible] nation, is in each of the Indian mints, at Ca[illegible] Madras and Bombay, who conducts the chemical analysis of the precious metals brought for sale and determines the quantity of gold or silver in any mixture with the baser metals. He also examines the pix coins prior to issue to ascertain that they are up to the standard. The process was formerly, by cupellation, but latterly the humid mode has been followed.

ASSEY, a river north of Lebanon, the ancient Orontes. See Lebanon.

ASSEAGAUM, a town in L. 77° 23′ E. and L. 20° 11′ N.

ASSEER, a town in L. 78° 11′ E. and L. 22° 17′ N.

ASSEEREE, a town in L. 73° 3′ E. and L. 19° 46′ N.

ASSEERGHUR, a fortress in L. 73° 18′ E. L. 20° 41′ N. ten miles west of Yevar, and a tree in the fort is 1154 feet above the level of the sea at Bombay. It was besieged on the 21st October 1803, and on the 8th and 9th April 1819 it was captured by the Indian Army.

ASSEWAN, a town in L. 80° 21′ E. and L. 26° 51′ N.

ASS-POISON, this is a translation of Khar Zahra, Persian, and supposed to be oleander.

ASSUM, a tin mine in Banca. See Tin.

ASSUR. A semitic race who settled originally on the upper Tigris, but to the east of that river, in the modern Kurdistan. It was the stem of the empire of Ninus on the Upper Tigris.—*Bunsen, iii,* 363.

ASSUR, in the hinduism of India traditional giants, who made war on the children of the Diti. In these Assur are doubtless typified the Assyrian conquerors who overran Asia to the Trans-Indus lands. It has also been surmised that the Assur of the Mahabaratha may be the Hasaures or Asii of Indo-Germanic history.

ASSYRIA, the Assyrians are the Eissor of the Scythians; the Ashur of the Hebrews, Assyrii of the Romans, who under the guidance of Bel (the Jewish Nimrod) invaded Mesopotamia, defeated Noah, who fled to Ardmion (Armenia.) Bel founded the town of Ba-bel in the plain of Shinar, and established the Assyrian Empire on the ruins of the Scythian one, more than 2,000 years before the christian era. Chevalier Bunsen gives the following as the successive dynasties who have ruled there. (See Assyrian, Lud; Sacti.) The period of the 2nd to the 9th dynasties was 1903 years.

1st.—Dynasty, 86 Chaldean kings.

2nd Dynasty, 7 Median Kings, Zoroaster and his successors, reigned 224 years, began B. C. 2234.

3rd Dynasty, 11 Kings (probably Chaldæans, reigned 288 years.

4th Dynasty, also Chaldees, 49 kings, reigned 458 years.

5th Dynasty, Arabs, 9 Kings, reigned 215 years.

6th Dynasty, 45 Assyrian Kings and Ninyads, amongst them Semiramis, 526 years.

7th.—6 Assyrian Kings, 122 years, viz: Nabonassar, B. C. 747.

Sarguia.

Sennacherib slain, B. C. 676, reigned 28 years, he was coeval with Esarhaddon (Assaradin) of Babylon.

Asarhaddon.

Saosdukhim (Samuges.)

Sardanapalus, brother of Samuges, B. C. 626.

This famous king of Assyria, was the Phul and Tiglath Peleser of scripture. He burned himself in his palace, B. C. 626. In his reign, his satrap at Babylon, Nabopolassar, the father of Nebuchadnezzar, rebelled, and not only made himself independent, but, in alliance with the Medes, checked the career of the almost universal empire of the Assyrians, and raised Babylon into the seat of empire of western Asia; S[illegible]danapalus had ordered Nabopolassar [illegible] march against the Medes who had revolted. But instead of that he formed an alliance with Cyaxares and marched with him against Nineveh which fell B. C. 626, (Bunsen iii. 435.)

8th.—Dynasty, 5 Chaldee kings, 87 years.

1. Nabopolassar, 22 years.
2. Nabokolasser, son, 43 years, [illegible]bukodrossor, Nebuchadnezzar.)
3. Illoarudam, son, (Evil Merodach of the Bible.)
4. Nerigassolassar (Neriglossar.)
5. Nabonadus, in the last year of whose reign Babylon was captured by Cyrus.

9th.—Dynasty, 10 Persian kings, 207 years.

Cyrus: Darius Codomanus: Alexander, B. C. 331.

The term assigned by Herodotus to the Assyrian dominion in Upper Asia, is 520 years.

The Empire of Nineveh was founded B. C. 1273, and Herodotus names the Medes (B. C. 753) as the first who threw off the Assyrian yoke, and this great empire [illegible] to an end B. C. 747. As early as the [illegible] year of Ninus i. e. in 1257, the Assyrian [illegible]pire had reached to the extent which it [illegible]tinued to hold till its downfall in the eight century, for in the sixteen years from B. C. 1273 down to 1257, the Assyrian empire extended itself over the whole of western Asia as far as Syria and Palestine, indeed to Egypt itself. (*Ch. Buns. iii.* 274.) The territory of Authur (from Asshur, Shem's son) was originally of small extent, and formed the second part of the kingdom usurped by Asshur the giant warrior, (Gen x. 11, 12,) who built, or rather restored, the three cities, Rehoboth, Calah, and Resen, besides the capital, Nineveh. The ruins of the latter city are sufficiently known from the descriptions of Rich, Ainsworth, and earlier travellers. They are in Assyria Proper, on the left bank of the Tigris, opposite Mosul, and the natives still call them by the original name. (*Euphrates and Tigris.—Col. Chesney, p.* 119.)

Babylon was built B. C. 3250, and was taken by Zoroastrian Medes B. C. 2234, the Median empire at Babylon again ended B. C. 201[illegible].— This was followed by the Arabian dynasty in Babylon and lasted to B. C. 1518, to be followed by the Assyrian dynasty of the Ninyads, (*Ch. Bunsen*, 78,) and according to their own and Greek account, the Assyrians conquered Egypt after the exodus of the Hebrews. Three centuries later, [illegible] first king of the 22nd dynasty captured [illegible]salem in the fifth year of Rehoboam the s[illegible] Solomon. The flourishi[illegible] age of Assyria [illegible]mmenced with Ninus. Se-miramis was [illegible]irth a philistine (Palestine) and first appeared at the Assyrian court with the army as the wife of the Assyrian Satrap of Mesopotamia or Syria, she was fanatical for the bloody and profane worship of the fish goddess Derketo. (*Ch. B. iii.* 274.) She seems to have reigned conjointly with Ninus after his tenth year (*Ch. Bunsen* 443. *iii.*)

According to Mr. Sharpe, Assyria, was supreme in western Asia, from B. C. 12[illegible] It was progressive till B. C. 1222, th[illegible] of Semiramis. (*Bunsen iii.* 289.) [illegible] Semiramis set out for India. The [illegible] on the right bank of the Indus the site of the present Peshawar, from above the At-tock, was tributary to the Assyrians, as afterwards was to the Medes and Persians The celebrated black monument from Nineve in the British Museum, a monument at least o the 9th century B. C. ha[illegible] Bactrian camc side by side and the Indian rhinoceros anc Indian elephant, and establishes the paymen of Indian tribute to the Assyrians. Semiramis fitted out an army in Bactria and captured o the Kophen (the Cabul river, the Kubha of th Rig-veda) the city of the same name. Sh the Indus with a vast force. The ruling ja had taken up a position there als a vast force, especially formidable from th nber of his archers and elephants. At firs ie retreated, but soon again advanced anc drove back the Assyrians in total disorder to the river which they recrossed with difficult and with immense loss. Semiramis concluded an armistice, made an exchange of prisoners and retreated into Bactria with a third of the army she had brought against India. This expedition took place in the latter part of her reign, consequently between B. C. 1235 and 1225. (Bunsen, iv. 549-550.) During the 520 years of dominion from B. C. 1273 to 753 the Assyrian power increased at times and waned The long line of Assyrian kings had been brought to an end when the weak and luxurious Sardanapalus was conquered by Arbaces the Mede. But after the death of Arbaces, Media in its turn fell into a state of weakness; and the Assyrians made themselves again independent under a king of the name of Pul. Their chief Nineveh, on the banks of the Tigris, was [illegible] capital of an empire which in- only the upper part of the country watered by the Tigris and Euphrates, but also the mountains of Kurdistan, and the plains on the further side of that range, which are watered by rivers running into the Caspian Sea. The kingdom was so well established by Pul, that his successor was able to indulge the ambition of widening it. Tiglath[illegible], the next king, marched westward, and [illegible]quered Syria, and hen took Galilee from [illegible] Israelites. His ches us that at that time Nineveh was of friendship with [illegible] Assyria in [illegible] under Shalmanezer, essor of Tiglath-Pileser.

lmanezer soon conquered all the neig ouring countries, Sidon, and Acre, and the land of Cyprus. Tyre alone held out against siege. The Assyrians therefore (Menander , Joseph, 2 Kings, Ch. xviii. 10.) overran the bellious Samaritans in spite of their Egyptian [illegible] they put down the kingdom of Israel, [illegible] away the nobles as captives to the banks [illegible]pian; and made Samaria a province of

Tirhakah the third Ethiopian king of Egypt, coming to the throne, found Sennacherib, Kings, ch. xix. 9.) the next king of Assyria, pursuing these successes, and threatening the destruction of the kingdom of Judæa. Sennacherib marched towards Egypt to attack Tirhakah instead of waiting to be attacked. He came to the walls of Pelusium (Josephus x. 2.) the frontier city, and laid siege to it in due form. Before they met the enemy, the army of Sennacherib was no more. An unseen hand had routed or destroyed the Assyrians in the night.—*Sharpe's History of Egypt, Vol. I. p.* 124-126. According to Mr. Layard the power of Bactria was broken by the Assyrians B. C 1200. The Assyrians are not particularly alluded to in Holy Writ, until the period when their warlike expedition to the west of the Euphrates, brought them into contact with the Jews. The first king whose name is recorded was Pul, who reigned between eight and nine hundred years before the Christian era, and about two hundred previous to the fall of the empire: consequently he must have been nearly the last of a long succession of kings who, it is generally admitted, had ruled over the greater part of Asia. The latter monarchs are more frequently mentioned in the Bible; as their conquests over the Jews, whom they led captive into Assyria, brings them continually under notice. But except when they particularly concern the Jewish people, very little is related of the deeds of even these monarchs. We have the testimony of ancient authors, who attribute the invention of letters to the Assyrians, and give the name of Assyrian to the cuneiform writing, even when changed and modified by the Persians.

In the more recent inscriptions at Khorsabad, Kouyanjik, and Nimroud, we have eunuchs writing down the number of heads, and the amount of spoil, on rolls of leather, or some other flexible material. It could scarcely have been papyrus, as that substance is too brittle to be rolled or bent, as represented in the sculpture. Parchment was not invented, which he Egygtians used occasionally as early as the 18th dynasty.—*Layard's Nineveh, Vol. i. p. xix. Vol. ii, p.* 178-184.

There is little connection between the Assyrian and Greek mythology, though a few attributes have a similarity. Nisroch or Asshur, he time god, the great triune deity, was associated with the planet Saturn. Bel with upiter; Merodach with Mars; Mylitta with Venus: Nebo with Mercury; Ishtar with the moon and Shamash with the sun. Mylitta, in Assyrian sculptures, holds in her right hand, a staff tipped with a crescent; in her left the symbol ♀ still used by astronomers, to represent the planet Venus. It is like the straight rod and [illegible]cle separated by a cross bar of the Egyptian symbol of life (the crux ansata) emblematic of the temporal and eternal life, separated by death. Mylitta was sometimes represented with the water of life issuing from her breasts.—*Proctor's Saturn, p.* 197. *Sharpe's Egypt. Layard's Nineveh. Bunsen's Egypt.* See Cyc. of Ind. Supp, ii. Inscriptions, p. 371: Iran; Kelat, 490 Ken: Luristan: Nabopolassar, Nineveh; Rawlinson: Sennacherib.

ASSYRIAN LAKE, the Assyrium stagnum, is the Dead Sea.

ASTA, or Patoo, a bast in use in Bheerbhoom.—*Royle Fib. Pl.* See Patoo.

ASTABAH. PERS. A ewer, in use in Persia, for washing the hands and feet. It resembles a coffee-pot, has a handle and long spout; from this a servant pours water on the hands held over the *laggan*. Some *laggans* are merely dishes, used as wash-hand basins.—*Ouseley's Travels, Vol. i. p.* 247.

ASTACUS, the Craw fish.

ASTANA. HIND. A threshold: a fakir's residence. See Ashr.

ASTARAK. ARAB. HIND. PERS. Storax.

ASTARKHI. ARAB. Red Orpiment.

ASTARTA, the Astaroth of the Bible, and Astarte of Greek authors, according to Chevalier unsen, is derived from the Egyptian word estoreth, the throne or seat of the Cow; *i. e.*, e Queen of Heaven, Baalti, the wife of Baal, e Lord: and it meant originally, Nature, the vine Kosmos. But after the year B. C. 2500 B. C. 2000, Astarta signified the polar star, hich was dedicated to that primeval goddess. —*Ch. Bunsen, iv.* 350-352. In Jeremiah xxiv. 15-17 and xix. it is called the Queen of Heaven —See also Judges x. 6; 1 Samuel vii. 3; xii. 10.

ASTARTE, or Ashtoreth or Baalith, the Queen of Heaven, the great female divinity of he Phænicians, the female power or Sacti of Baal, whom the Greeks changed into Baaltis or Belthes. was the chief deity of Sidon, but er worship was extended to the E. of the ordan. Physically, she represented the moon, ence her name in Gen. xiv. 5; Deut. i. 4; Josh. ii. 4. Ashtaroth Karnaim or the two horned. rom the crescent moon. See 1 Kings xi. and . 53; 2nd Kings xxiii. 13; vii. 18: 44; xxv. It as by the names, Ashtoreth or Astarte that he moon was worshiped by the Israelites, Asyrians, Phœnicians, Carthagenians and the eople of Tyre and Sidon. See Ken.

ASTEH, a surname of Arsaces, supposed to ave been a descendant of the ancient Persian ings.

ASTER, a genus of plants belonging to the atural order Matricariaceæ. These are named om Aster, a star: and furnish nearly every ariety of colour. Some beautiful additions om Germany are striped and of larger size han the Chinese. They are propagated by seed sown at the end of the hot weather, and continued during the rains. Mr. Jaffrey observes that the flowering of the asters is of so short a duration they will scarcely remunerate for the trouble taken to raise them. Mr. Mason mentions that a species of aster, or christmas daisy, is seen occasionally in European gardens, in Tenasserim.—*Riddell. Jaffrey. Mason. Voigt,* 408.

ASTERABAD. The small province of *Asterabad* is sometimes included in Mazenderan, which it resembles in appearance, climate, and productions. This is the ancient Hyrcania, and the paternal estate of the present king of Persia as chief of the Kujur tribe, who have entire possession of the province. It is bounded on the west by the Caspian sea; to the south it is separated by a lofty ridge of mountains from the districts of Dâmghân and Bistan, it extends to the east as far as the longitude of 58,° and is divided from Dâghestan by the River Ashor. The city of Asterabad, the "capital of the province, is situated near the mouth of the river Ester, on a bay of the Caspian sea." From Astrabad, it is eighteen days' journey to Herat, and from thence, passing through the hilly country of the Hazara people, you arrive at Kabul on the eleventh. The Hazaras are independent and Shias. They possess large herds of cattle, and great numbers of fine shawls.—*Mohun Lal's Travels, p.* 320. *Malcolm's History of Persia, Vol. ii. p.* 126.

ASTERACANTHA LONGIFOLIA. *Nees.*

Syn.

Ruellia longifolia. *Roxb.*

Barleria longifolia. *Linn.*

Kanta-kalika ...	BENG.	Bahel Shulli ...	MALEAL.
Bahel Shulli	CAN.	Wahel Shulli ...	„
Katu-iriki.	CYNGH.	Gekantaka... ...	SANS.
Gokthura.	HIND.	Ikshugandha ...	„
Gokiura ..		Nir-mulli	TAM.
Gokshura.		Nirugobbi	TEL.
Talmakara.		Gobbi...	„
Ikshura ...			

Grows in wet places all over India, and is considered tonic and diuretic.—*Roxb. iii.* 42. *Birdwood's Bombay Products. Voigt.* 485.

ASTERACEÆ. See Chrysanthemum.

ASTERIA, of Pliny, the star rubies of the moderns, are found at Ratnapoora in Ceylon.

AST'HA DIK PALAKA ARATANAM. See Hindu.

ASTHOL. See Math.

ASTMABAYDA. SANS. Illecebrum lanatum.

ASTOLA ISLAND, Aptallah or Sungadeep, in Lat. 25° 7′ N. Lon. 63° 47′ E. on the south coast of Persia, is 3 miles long and of moderate height.—*Horsburgh.*

ASTOR, a mountainous district, on the borders of little Thibet to the west of Ladak. They speak a dialect of the Dardu language. See Ladak; Tibet; India 336.

ASTRACAN; hindus extend to Astracan and the remote parts of the Russian Empire.

ASTRAGALUS, a genus of plants belonging to the natural order Fabaceæ. Its species, A Aristatus: A. Criticus: A. Dicksonii: A. Gummifer: A. Verus and A. Strobilifera, of Mount Lebanon, Crete, Ionia and the Peloponesus, produce the gum tragacanth of commerce, which is used as an ingredient in dye stuffs and as a glaze for calico and silk, and in medicine as a styptic powder and in lozenges. Its price in England is 4*s*. to 8*s*. the pound. Several Astragali are common in the higher Himalayas. Two species in Kaghan, are called Bachmal and Kenchirunga, and the hindi term Makhmal is given to the Astragalus spinosus, but none of these have been ascertained to yield Tragacanth. It is largely produced in Persia and exported to Bagdad, Bassoraiand India.—*Voigt*. 217. *O'Shaughnessy, p.* 294. *Hog. Veg. King*. 274. *Poole, p.* 304. See Tragacanth.

ASTROLOGY. Sir J. E. Tennent mentions that the practice of astrology at the present day in Ceylon, and the preparation of the ephemeris predicting the weather and other particulars of the forthcoming year, appears to have undergone little or no change since this custom of the inhabitants of India was described by Arrian and Strabo. But in later times the brahmans and the buddhists have superadded to that occupation the casting of nativities and the composition of horoscopes for individuals, from which the Sophistæ described by Arrian abstained. It is practised alike by the highest and most humble castes of Singhalese and Buddhists, from the Vellala, or agricultural aristocracy, to the beaters of tom-toms, who have thus acquired the title of "*Nakatiya*," or Astrologer. The attendance on particular ceremonies however, called *Balli*, which are connected with divination, belongs exclusively to the latter class. The Mahomedans of British India, keep their calendar, or Jantri and the Joshi calculates the ephemeres. The hindus also have their Calendar or Panjangam, but they all practice divination from books, of which the Chintamani pastakam is in use in the South of India.—*Tennent's Christianity in Ceylon, p.* 184. See Divination.

ASTRONOMY is supposed to have been invented by the Chaldæans (q. v.) It has however been attributed to the Egyptians, who probably derived their knowledge from a more ancient nation. The Chinese have no claim, and when the claims are investigated of the Indians, Persians and Babylonians, it is found that their systems of Astronomy belong to a latitude considerably higher than Benares, Persepolis or Babylon, but somewhere between 35° and 55° North. Brahminical books teach that the longest day in summer is twice as long as the shortest day in winter which is not the case in any part of India. Zoroaster taught the Persians similarly, and Ptolemy obtained ancient Babylonian records of star risings, belonging to latitudes not lower than the 40° parallel.

The astronomical symbols of the planets have been derived, in all probability, from Chaldean and Assyrian sources. The symbol of the planet mercury is the (☿) is the Cauceus, which, like the petasus is an emblem of eastern origin. The symbol of Mars (♂) represents a round shield and spear. The symbols of Jupiter and Saturn (♃ and ♄) are doubtful, but are probably the Syro Arabic forms of the numbers 4 and 5, indicating the position of these bodies, in the planetary five. The symbol of the earth (♁) is the inverted emblem of life, and probably bears some reference to terrestrial corruption and decay. (*Proctor's Saturn, p.* 197.) The astronomical systems of the old Arabian authors are founded on those of Hipparchis and Ptolemy. The Arab prince Albategnius stated the procession of the equinoxes to be 1° in 66 years. The divisions of time of all nations are astronomical. From the remotest tin
amongst the Chaldeans, Egyptians, Arabi
Hindus, Greeks and the natives of Nor
Europe, there has been a hebdomadary d
of the month. In this, the days are comn
with the day of the sun, followed by th
and the five planets, Mars, Mercury,
Venus and Saturn. The hindus also
by the light and dark halves of the
which they designate Kista and Săkla pakshad.. The modes of determining divisions of times of the day have been various among the nations of antiquity, and there are still variations in these modes in the modern world. The manner of reckoning the days by the ancient Jews, and which subsists amongst that people at the present time, is, to commence the day at a certain hour of the evening, and to finish it on the next evening at the same hour. Thus their Sabbath begins on the afternoon of Friday, and is completed on the afternoon of Saturday. The Roman Catholic Church also commences its festivals in the evening; and this custom is retained amongst the British in some of their popular observances, such as the eve of St. John, and Christmas eve. The civil day of Britain now commences at 12 o'clock at midnight, and lasts till the same hour of the following night. The civil day is distinguished from the astronomical day, which begins at noon, and is counted up to 24 hours, terminating at the succeeding noon. This mode of reckoning the day, is that used in the Nautical Almanac, and it sometimes leads to mistakes with persons not familiar with this manner of computation: a little consideration will obviate the difficulty. Thus January 10, fifteen hours, in astronomical time, is January 11, 3 in the morning civil time. In France and most of the States of Europe, as

with the British, the hours are counted up to 12, from midnight till noon, and from noon till midnight. In parts of Italy, and of Germany, the day is held to commence about sunset and the hours are counted on till the next sunset. This mode is very inconvenient to travellers, as the noon of the Italian hours at the summer solstice is 16 o'clock, and 19 o'clock at the winter solstice.

The division of the day among mahomedans is chiefly subservient to the stated times of performing their devotions, and is not generally very accurate. They begin their account at sunset, reckoning twelve hours from thence to sunrise, whether the night be long or short; from sunrise to sunset they also reckon twelve hours, and consequently a night hour is longer in the winter than an hour of the day, and in summer the hours of the day are longer than those of the night. At the equinoxes alone, all the hours are of equal length, and then they coincide with those adopted by the British in commencement and duration, differing, of course, 6 hours in enumeration, so that the British six o'clock is their twelve, and the British seven is their one, &c. At other periods of the year, also, their six o'clock coincides with the British twelve, but every other hour differs more or less from that of Britain. The time of sunrise, and, consequently, the length of the day, being known, the length of each hour will be easily found by division, and the period of any given hour determined. Thus, if the sun rise at 7 o'clock, the length of the day will be ten hours (of 60 minutes each) and that of each hour 50 minutes. One o'clock, mahomedan reckoning, will then be at 50 minutes after 7, two o'clock 40 minutes after eight, and three o'clock will be half past nine, and so on of the others. When the sun rises at 5 o'clock the three first hours of the day will be completed severally at 10 minutes after six, twenty minutes after seven, and half past eight. In every case six o'clock arrives exactly at midday, which in India is called "*do pahar*, or the *second watch*."

The *Chinese* division of the day is as simple as the British and not much unlike it. The Chinese begin the day an hour before midnight, and divide the twenty-four hours into twelve parts of two hours each. Instead of numbering their hours they give a different name to each period of two hours; the names and corresponding time, according to the British mode, are as follows:—

Taze.	11 to 1	Morning.	Woo.	11 to 1	Afternoon.
Chow.	1 to 3	"	We...	1 to 3	"
Yiu..	3 to 5	"	Shin.	3 to 5	"
Maou.	5 to 7	"	Yew.	5 to 7	"
Shin..	7 to 9	"	Seo...	7 to 9	"
Sze...	9 to 11	"	Hae..	9 to 11	"

The word Keaou is added when the first hour of each period is intended, and Ching for the last. Thus, Keaou tsze is 11 at night, and Ching tsze 12 at night; Keaou Chow 1 in the morning, Ching Chow 2 &c. &c. The word K'hih "quarter," is used after the hour with the numerals yih 1, urh 2, or san 3, to subdivide the hours into quarters, which is the smallest division commonly employed: example, ching maou yih k'hih, a quarter past 6; keaou woo urh k'hih, half past 11.

Both the hindoo and the mahomedan, in India, divide the day into four watches, and the night, into the same number; the day being considered to extend from sunrise to sunset. The watches are again divided into *ghurees*, which are 24 minutes each in length. As, in the summer, the days are longer than the nights, each day watch will then be longer than any watch of the night, though, from the necessity of each watch comprising an exact number of ghurees, there will generally be the difference of 1 ghuree between two watches of the same day. There is much variation in this respect, and although, in the latitudes of India, the difference is not so great as it would be in a country more towards the north, it is still so inconvenient that the natives of India rarely understand their own method of dividing the day, and readily adopt the British mode.

In order to explain the mode of subdividing the watches, we shall detail the correspondence of ghurees with British hours in March and September when the days and nights are equal, and when, in consequence, more regularity may be expected than at other seasons. It must be remembered that a ghuree contains 24 minutes, and that 60 ghurees make up the 24 hours; 30 ghurees, therefore, make up the time between sunrise and sunset at this season. If these 30 ghurees were equally divided between the four watches, giving 7 ghurees and a half to each watch, their correspondence with British hours would be easily made; but as the hindoo practice is never to divide a ghuree between two watches, but to continue every watch until the last ghuree is completed (with o[illegible]n) the watches will be of unequal length; the first and last watches will be of 8 ghurees, and the second and third of 7 ghurees each.

At 6 o'clock, the first ghuree begins with the rising sun and is completed at 24 minutes after 6; the second ghuree strikes at 48 minutes after 6, the third at 12 minutes after 7 and so on in succession until the end of the first watch, at 12 minutes after 9. At 36 minutes after 9, one ghuree strikes again, and the same detail continues until midday, when the second watch ends. The third watch [illegible] at 48 minutes after 2, and the fourth [illegible], or sunset. The same succession [illegible] during the night.

In the summer, when the sun rises about 12 minutes after five, and sets at 48 after 6, th day is 34 ghurees in length, and the night only 26. In this case the first watch of the day contains 9 ghurees, the second and third 8 each, and the fourth nine. In the night the four watches will contain, respectively 7, 6, 6, and 7 ghurees. In winter, of course, the contrary arrangement takes place, the day consisting of 26 ghurees, and the night 34; circumstances being the same in other respects. In the intermediate seasons the watches will contain 6, 7, 8, or 9 ghurees each, according to the length of the day; arranging them so that each watch may contain an equal number of ghurees, if possible; if there be one ghuree in excess, it is to be added to the first watch; if two, to the first and last; and if three, to the first, second, and last. The last ghuree of the day will occasionally be lengthened or shortened, in order to finish the day with sunset, and the last of the night altered in the same way, that the day may begin at sunrise.

With such a variable system as the above, it is evident that no clocks could be made to mark the time; but a mode denoting time has been adopted by the hindoo, which is not without ingenuity. They provide a thin metal cup, a clepsydra, through the bottom of which a small hole is drilled; this cup swims on the surface of a vessel of water, until the water, running gradually through the hole, fills the cup, which then sinks. The hole is made of such a size, that the water rising sinks it in 24 minutes. A sort of gong, or shallow bell metal pan, called a ghurial, is hung up near the vessel, to be struck at the expiration of each ghuree, which is known by the sinking of the cup. A man, who is employed to watch the sinking of the cup, and to strike on the bell, is called a ghuriali. For the complete establishment of a ghuree, six or eight servants are necessary, who keep watch in turns. Such an expense can, of course, be afforded only by the wealthy; but the sound of a gong is usually loud enough for a whole village, and serves the purpose of a church clock.

We shall explain the operations of the ghuriali through the twelve hours of an equinoxial day; and the process of striking throughout the year will be easily understood from this detail.

At six o'clock in the morning, as soon as the sun appears on the horizon, a little cup is put on the surface of the water; when it sinks, which will be at 24 minutes after 6, the time is called, but not struck, 1 ghuri. This ghuri is considered sacred to the sovereign and his ghuriali, alone, has the privilege of striking it: with this exception the first ghuree is passed in silence throughout Hindostan. At the second ghuri, two blows are struck; at the third three, and so to the end of the watch, when eight blows are struck for the eighth ghuri of the watch: then eight to show that 8 ghuris of the day are passed; and after an interval of a second or two, one loud blow is struck to shew the end of the first watch. The same process is repeated to the end of the second watch, except that the first ghuree is not passed in silence; and that, at the end of the watch, which consists of 7 ghurees, after striking the seven blows, fifteen more are sounded, to show that fifteen ghurees are elapsed from sunrise, and then two loud blows to show the end of the second watch. At the end of the third watch, seven blows are struck for the 7 ghurees of the watch, twenty-two for the ghurees of the day, and three loud strokes for the third watch. At sunset, after the eighth stroke for the eight ghurees, thirty are sounded to show that 30 ghurees are passed since sunrise, and four loud ones for the completion of the fourth watch. As the fourth watch is never struck until sunset, the last ghuri will increase with the lengthening days, until, in April, it would be equal in length to two ghurees, and the whole watch would contain 9 ghurees. To avoid so long a watch, one ghuree is added to the second watch, which before contained only 7 ghurees, and the last watch is reduced to its former length. In May the day is one ghuree longer, and this addition is made to the third watch, which before contained only seven. The four watches are then of equal length. At the end of May, a ghuree is added to the first watch, and near midsummer another to the last watch. The day then consists of 34 ghurees, and the night of 26 only: and, as the days decrease, 1 ghuree is taken away at a time, in the same order as they were put on, until the shortest day, when the whole detail recommences.

Some variation will occasionally take place in consequence of the difficulty of ascertaining the precise moment of sunrise, though much less, in India, than would be the case in a cloudy atmosphere. Change will also arise from the negligence or idleness of the ghuriali; and tales are sometimes told of great men, for whose convenience the complaisant ghuriali will add a ghuree to a watch, or accelerate the sinking of the little cup to accommodate their master's pleasure. These circumstances will prevent any exact coincidence of ghurees with hours practically, though there will be no great discrepancy by attending to the rules laid down above.

The British names of the days of the week are derived from the Saxons; and they partly adopted these names from the more civilized nations of antiquity. The following ingenious origin of the ancient names has been suggested in connexion with astronomical science. The planetary arrangement of Ptolemy was thus—1, Saturn; 2, Jupiter; 3, Mars; 4, the Sun; 5, Venus; 6, Mercury; 7, the Moon. Each of these planets was supposed to preside, successively, over each hour of the 24 of each day, in the order above given. In this way would preside over the first hour of the first day, Jupiter over the second hour, Mars over the third, the Sun over the fourth, and so on Thus the Sun presiding over the fourth, eleventh, and eighteenth hours of the first day, would preside over the first hour of the second day, and carrying on the series, the Moon would preside over the first hour of the third day, Mars over the first hour of the fourth day, Mercury over the first hour of the fifth day, Jupiter over the first hour of the sixth day, and Venus over the first hour of the seventh day. Hence, the names of the days yet used in the learned professions throughout Europe. The present English names, however, are derived from the Saxon :—

Latin.	*English.*	*Saxon.*
Dies Saturni	Saturday	Saterne's day.
Dies Solis	Sunday	Sun's day.
Dies Lunæ	Monday	Moon's day.
Dies Martis	Tuesday	Tiw's day.
Dies Mercurii	Wednesday	Woden's day.
Dies Jovis	Thursday	Thor's day.
Dies Veneris	Friday	Friya's day.

Tiw, Woden, Thor, and Friya were deities of the pagan Saxons. Thor was the god of thunder, as well as the ancient Jove, and Friya was a goddess, the wife of Woden.

Almost all nations have regulated their months and weeks, in a great degree, by the revolution of the moon. Some have endeavoured to unite this division with the annual course of the sun, by an augmentation of days at the end of each year, or by adding a thirteenth month at the end of every third year. The Jews and the Athenians followed this latter method; the Macedonians, and some nations of Asia, assigned their months 30 and 31 days; the Turks and the Arabs have 29 and 30 days; the months of the Anglo-Saxons were governed by the revolutions of the moon. Their common year consisted of twelve lunar months, three months being appropriated to each of the four seasons; but every third year contained an additional lunar month, which was given to the summer season. The names of their lunar months, either had reference to their religious ceremonies, or to the natural appearances of the year.

A considerable variation prevailed, generally, amongst the nations of antiquity, and still partially prevails with regard to the commencement of the year. The Jews dated the beginning of the sacred year in the month of March; the Athenians in the month of June; the Macedonians on the 24th September; the Christians of Egypt and Ethiopia on the 29th or 30 of August, and the Persians and Armenians on the 11th of August. The Jewish civil year begins on the first day of the month Tisri, which year corresponds with our 9th of September; the mahomedan's begins on the 1st of the month Moharam, which year, corresponds with our 14th of July. Nearly all the nations of the Christian world, now, commence the year on the 1st of January; but, as recently as 1752, even in England, the year did not legally and generally commence till the 25th of March. In Scotland, at that period, the year began on the 1st of January. The difference caused great practical inconvenience, and January and February, and part of March, sometimes bore two dates, as we often find in old records as 1711-12. This practice often leads to chronological mistakes; for instance, we popularly say, "The British Revolution of 1688," that great event happened in February of the year 1688, according to the then mode of computation; but if the year were held to begin, as it does now, on the 1st of January, it would be "The Revolution of 1689," In the anniversaries given in the Almanacs, the alterations of style made in 1752, are not followed, as any correction of dates would embarrass the reader in historical and biographical references.

The year, properly so called, is the solar year, or the period of time in which the sun passes through the twelve signs of the Zodiac. The period comprises 65 days, 5 hours, and 48 minutes, 51 seconds, 6 decimals, and is called the astronomical year.

The CALENDAR in India, the Jantri of the hindus, is a table of the days of the year arranged to assist the distribution of time, and to indicate remarkable days connected with devotion or business. If every nation had adopted the same division of time, and an uniform calendar had been general throughout civilized states, history would present much fewer difficulties and contradictions. The progress of astronomical science has necessarily produced great changes in the manner of dividing time; and thus, whilst some nations have been ready to give their calendar every possible advantage of a [illegible] construction, the prejudices of others ha[illegible]dered them unwilling to depart from their accustomed mode, however inaccurate.

The Romans called the first days of each month Calends, from a word which signified "*called*" because the Pontiffs, on those days, called the people together, to apprize them of the days of festival in that month. Hence we derive the name of Calendar.

The Roman Calendar, which has, in great part, been adopted by almost all nations, is stated to have been introduced by Romulus, the founder of this city. He divided the year into ten months only,—Mars, Aprilis, Maius, J[illegible], Quintilis (afterwards called Julius), [illegible] (afterwards called Augustus.) Septem[illegible]ber, November and December. Mars, [illegible] Quintilis, and October, contained 31 days, and each of the six other months 30 days, so that the ten months comprised 304 days. The year of Romulus was, therefore, of 50 days less duration then the lunar year, and of 61 days less than the solar year, and its commencement, of course, did not correspond with any fixed season. Numa Pompilius corrected this calendar, by adding two months, Januarius, and Februarius, which he placed before Mars. Julius Cæsar, being desirous to render the calendar still more correct, consulted the astronomers of his time, who fixed the solar year at 365 days, 6 hours, comprising, as they thought, the period from one vernal equinox to another. The six hours were set aside, and, at the end of four years, forming a day, the fourth year was made to consist of 366 days. The day thus added, was called intercalary, and was added to the month of February, by doubling the 24th of that month, or according to their way of reckoning, the sixth of the calends of March. Hence the year was called bissextile. This almost perfect arrangement, which was denominated the Julian style, prevailed generally throughout the Christian world, till the time of Pope Gregory XIII. The Calendar of Julius Cæsar was defective in this particular, that the solar year, consisting of 365 days, 5 hours, and 49 minutes, and not of 365 days, 6 hours, as was supposed in the time of Julius Cæsar, there was a difference between the apparent year and the real year, of eleven minutes. This difference at the time of Gregory XIII, had amounted to ten entire days, the vernal equinox falling on the 11th instead of the 21st of March, at which period it fell correctly at the time of the Council of Nice, in the year 325. To obviate this inconvenience, Gregory ordained, in 1582, that the 15th of October should be counted instead of the 5th, for the future; and to prevent the occurrence of this error, it was further determined, that the year beginning a century, should a whole bissextile, with the exception of the beginning of each fourth century. Thus 1700 and 1800 have not been bissextile, nor will 1900 be so, but the year 2000 will be bissextile. In this manner, three days are retrenched in four hundred years; because the lapse of the eleven minutes makes three days in about that period. The year of the Calendar is thus made, as nearly as possible, to correspond with the true solar year, and future errors of chronology are avoided. The adoption of this change, which is called the Gregorian, or New Style, (the Julian being called the Old Style,) was for some time resisted by states not under the authority of the See of Rome. The change of the style in Britain was, established by an Act of Parliament passed in 1752. It was then enacted, that the year should commence on the 1st January, instead of March 25th; and that in the year 1752, the days should be numbered as usual until September 24, when the day following should be accounted the 14th of September, omitting 11 days. The Gregorian principle of dropping one day in every hundredth year, except the fourth hundredth, was also enacted. The alteration was, for a long time opposed by the prejudices of individuals; and, until lately, with some persons, the Old Style was so pertinaciously adhered to, that rents were made payable on the old quarter days, instead of the new. The Russians still retain the Old Style, thus creating an inconvenience in their public and commercial intercourse with other nations, which, the growing intelligence of the people will eventually correct.

During the period in which France was a Republic, the authorities introduced an entire change in the calendar, which was in existence more than twelve years; and is important to be noticed, as all the public acts of the French nation were dated according to this altered style. The National Convention, by a decree of the 5th October 1793, established a new era. which was called, in the place of the Christian Era, the Era of the French. The commencement of each year, or the first "Vendimaire," was fixed at the midnight commencing the day on which the autumnal equinox fell, as determined at the observatory at Paris. This era commenced on the 22nd of September 1792, being the epoch of the foundation of the Republic; but its establishment was not decreed till the 4th "Frimaire" of the year II, (4th November, 1793.) Two days afterwards the public acts were thus dated. This Calendar existed till the 10th "Nivose," year XIV (the 31st December, 1805,) when the Gregorian mode of computation was restored.—(*Madras Almanac, p.* 70 *to* 74.) The Parsees of India have a new years day, in March.

The mahomedans of Persia reckon the year, from their Nao-roz or New year's day, the day on which the sun enters Aries, but the mahomedans of India follow the lunar months and have no intercalary periods, so that their anniversaries and festivals make, continuously, circuits of the seasons.

The hindus of India follow the lunar months, but, every twenty-fifth year, insert an intercalary month to adjust.

Hindu festivals and holydays are very numerous, and several of those which the masses observe have an astronomical origin or refer to the seasons. The *Makar Sankranti* festival, about the 12th January, is held on the occasion of the sun entering the tropic of Capricorn or Makar. On this day, the hindus bathe, and anoint the body with sesamum oil, and listen to the prayers of brahmans to whom they give presents. The prayers on this day are only to the sun. They have friends to dinner at night and put on new clothes.

Shoondoah, is a tiny ship which hindus launch on the Ganges. They have garlands of flowers and are illuminated with lamps. It is performed by hindu mothers to propitiate the goddess, in behalf of their sons. The goddess resembles Amphitrite. It is supposed to be a propitiatory rite handed down from times when the hindus were engaged in maritime avocations. It is held on the day, on which, according to hindu astronomy, the sun turns back from Capricornus to resume his northern ascension and when the steady N. W. wind blows favourably for outward bound voyages : feastings are held on that day, and farewell entertainments are given to the voyagers. The sun's festival with the Getc and Aswa nations of the Jaxartes, as with those of Scandinavia, seems to have been the winter solstice, the Sacrant of the Rajpoot and Hindu in general.—*Tod's Rajasthan, vol. i. p.* 676.

The ceremonial of the horse's return after a year, evidently indicates an astronomical revolution, or the sun's return to the same point in the ecliptic. The return from his southern declination must have been always a day of rejoicing to the Scythic and Scandinavian nations, who could not, says Gibbon, fancy a worse hell than a large abode open to the cold wind of the north. To the south they looked for the deity ; and hence, with the Rajpoots, a religious law forbids their doors being to the north.

Basant Panchmi occurs about the 9th February, is in honor of Basanth, the spring, in hindu mythology, personified, and an attendant of Kama, the god of love.

Ruth' Saptami, from ratha a car and saptami, the 7th day of the month, is dedicated to the worship of the sun. This is held about the 11th February and is regarded as the beginning of the Manwantaram or period *embracing the age of Manu*.

Holi or Hutasavi, in Sanscrit Holikha or Phal gotsava, is called also dola or dolavatra, the swinging festival and is supposed to relate to the vernal equinox and to be similar to the Persian New year. It is held about the 19th March, or 15 days before the full moon of Phalgun. It is in honor of Krishna and is quite a saturnalia, red powders are thrown and red fluids squirted at passers by and licentious songs sung. At the close of the festival, a pile is lighted, and a wheaten cake or poli, offered on it.

Guddi padva, or flying of paper kites is held at the new year, on the new moon of *Chaitra*, *about the 5th April*.

Ashadi Ekadasi, is the eleventh of the light half of the month Ashad and is dedicated to Vishnu. It falls about the 12th July, and refers to the summer solstice, and on this feast day, commences the night of the god, during which he reposes for four months on the serpent Sesha.

Shravan or Purnima, this feast occurs about the middle of August, on the 15th of Shravan Shukla. It is attended, on the western coast of India, about Bombay, with much ceremonial. The S. W. monsoon is supposed to be ended. Cocoanuts and flowers are thrown into the sea to obtain favour for those who are to trust themselves on the ocean.

Gouri, a name of Parvati or Ceres, has a festival about the beginning of September, on the 7th of Bhadrapad, when Parvati is worshipped as a tender maiden. It lasts three days.

Pitra Baksh, Pitra, paternal ancestors, the Patrii of the Romans, is a hindu festival about the end of September on the last day of Bhadrapad or first day of Ashwin, on which offerings of fire and water are made to the manes of deceased ancestors.

Dasara, from das, ten, occurs about the first day of October, on the 10th of Ashwin shud. It is supposed to relate to the autumnal equinox. The nine days preceding the Dasara are the Nao-ratri, during which a brahman is engaged to read the praises of Durgi, and on the tenth, is the homa or fire sacrifice, in which rice and ghi are poured into the fire. Bunia women keep up a dance called Garbhu. The 10th day of Asoj is commemorative of the date on which the deified Rama commenced his expedition to Lanka for the recovery of Sita.

Kartik Ekadusi, is the 11th in some years the 12th day of the light half of the month Kartik or about the 8th November. On this day, Vishnu is supposed to rise from his four month's sleep and this has reference to the sun being at the winter solstice.

Ganesh Chaturthi or Chauth. On this day, which falls about the beginning of September, was born Ganesh called also Ganapati made from the turmeric and oil off the head of Parvati. He is the god of wisdom who removes obstacles and is invoked at the commencement of all undertakings. Ganapati has a man's body with the head of an elephant, his head is said to have been cut off or destroyed by Siva, when Ganesh tried to prevent Siva entering the chamber of Parvati when bathing. Clay images are made and worshipped for from one to nine days and then thrown into water. The Chinchor or Chinchwad who resides at a village of that name near Poona is believed to be an incarnation of Ganesh, who promised an ascetic, named Moroba, who lived in Sivaji's time, that he would be incarnate for seven generations in his family. The earth image of Ganesh is one of three forms in which the earth deity mrittika is worshipped by hindus. The first is the Nagpancham : in which feast a snake of clay is worshipped, the second is Gokul Ashtami, when a clay image of the infant Krishna is worshipped, and the third occasion is that on which Ganesh is worshipped, and this last day of the worship of Mrittika is observed with great pomp. The Vahan or carriage of Ganesh is a rat. The feast in honor of his birth is held on the 4th of the month Bhadrapad, and falls on the first days of September and has some seasonal connection. Ganesh is brought to the house with much pomp.

ASTRUK. GUZ. استرق HIND. Gum ammoniac.

ASTUR TRIVIRGATUS, Temm. Goshawk. This species of hawk inhabits the hilly parts of Nepaul, India and the Malay countries. The other Indian species, A. palumbarius is a native of Europe and Asia, but in India is confined to the Sub-Himalayas. See Aves.

ASTYAGES OR APANDA, a persian king of the Kaianian dynasty. He was son of Isfandiar.

ASTZ : GER. Soda. Natron.

ASUBHA CHAWANA, in Singhalese Buddhism, the meditation of misfortune.—*Hyder's Eastern Monachism, p.* 434.

ASUL also ATUL. HIND. Tamarix orientalis.

ASUN. MAR. Briedelia spinosa.

ASUR. SANS. A demon. An order of beings who reside under *Maha-meru.—Hyder's Eastern Monochism, p.* 434. See Assur ; Asura.

ASURA. SANS. Strength or lordship, a word of uncertain etymology, perhaps from Assur, as above ; or the god Ashur, perhaps from Ahuramasda (Ormuzd.) The Asura evidently were a nation with whom the immigrant Arians came in conflict, and have been described in hindu mythology as demons. It is a term much employed in hindu legends from a very early period after the deluge down to the time of Krishna. The earlier Asura are probably the offspring of Ashur. The later Asuras seem to have been the Assyrians. But Daitya, Danava, Dasya, Rakshasa, are the names applied by the intruding Aryans to the races whom they found in occupation of India. *Taylor. W. H. of I.* See Ashur ; Assur ; Assyria ; Hindoo ; Mahadeva ; Parvati ; Ravana.

ASURA DHRUVA, the South Pole, its inhabitants opposed to the Suras, those of the North Pole.

ASURAKOT, a town in L. 82° 34′ E. and L. 28° 17′ N.

ASURAYANA AND YASKA. See Hindu.

ASVINI. See Aswini.

ASWA OR ASI, an Indu or Lunar race, [illegible] and Bajaswa. They were spread over the countries on both sides the Indus, and probably gave their names to the region now called Asia.

ASWA AND HYA, synonymous Sanscrit terms for 'horse;' the *asp* of the Persians ; and as applied by the prophet Ezekiel to the Getic invasion of Scythia, B. C. 603 : "the sons of Togarmah riding on horses ;" described by Diodorus, the period the same as the Takshas invasion of India. Amongst the Scythians, the horse was sacred to the sun. In India, Sept-Aswa is the seven-headed horse of Surya, the sun.

In Aswa we have the derivation of the ancient races, sons of Bajaswa, who peopled the countries on both sides the Indus, and the probable etymon of Asia. The Assa-seni, the Ari-aspi of Alexander's historians, and Aspasiana, to whom Arsaces fled from Seleurus, and whom Strabo terms a Getic race, have the same origin, hence Asi-gurh, 'the fortress of the Asi' (erroneously termed Hansi), and Asgard were the first settlements of the Getic Asi in Scandinavia. Alexander received the homage of all these Getic races at 'the mother of cities' Balkh, 'seat of Cat'h-haian Khan,' according to Marco Polo, from whom Milton took his geography.

Hi, Hya, Hywor, and Aswa, denote the steed in Sanscrit and its dialects. In Gothic, hyrsa ; Teutonic, hors, Saxon, horse.—*Tod's Rajasthan, vol. i. p.* 76. Of the three great branches of the Indu (Lunar), Aswa bore the epithet of *Mida* (pronounced Mede), *viz.*, Poora-mede, Uja-mede, and Deomede. The Aswa invaders of Assyria and Media, the sons of Bajaswa, are expressly stated to have multiplied in the countries west of the Indus, emigrating from their paternal seats in Panchalica.—*Tod's Rajasthan, Vol. I. p.* 58, 209.

ASWAD. El-Aswad-ibn-Kaab, of the time of Mahomed, was the chief of the tribes of Ans, in Arabia, and a man of eloquence: he embraced mahomedanism and again seceded, to set up a religion of his own. He was slain on the instigation of Mahomed, shortly before the demise of the latter.

ASWAGANDHI—S. (*V. Perneru,*) TEL. అశ్వగంధి. Physalis somnifera, *Nees.*

ASWALAYANA DARBHA GADDI. TEL. ఆశ్వలాయనదర్భగడ్డి. Poa cynosuroides, *Retz.*—

ASWAMEDHA, the sacrifice of the horse, Medha, Sanscrit, signifies to kill was practised in India, in ancient times, but its occurrence within any recent period is not known. It seems to have been a Scythic rite, where often the horse after certain ceremonies was liberated, in fulfilment of a vow, and sacrificed on the deaths of chiefs. Up to the present day, in India, cows and bulls are let loose in fulfilment of vows, but the liberation of a horse is not now known. Col. Tod surmises that the grand solstitial festival, the *Aswamedha*, or sacrifice of the horse (the type of the sun), which was practised by the children of Vaivaswata, the 'sun-born,' was most probably simultaneously introduced from Scythia into the plains of India, and *west*, by the sons of Odin, Woden, or Boodha, into Scandinavia, where it became the *Hi-el* or *Hi-ul*, the festival of the winter solstice; the grand jubilee of northern nations, and in the first ages of Christianity, being so near the epoch of its rise, gladly used by the first fathers of the Church to perpetuate that event. It was practised he adds (*Rajasthan, Vol. I. p.* 63.) by the Getes in the time of Cyrus; deeming it right, says Herodotus, to offer the swiftest of created to the chief of uncreated beings: and this worship and sacrifice of the horse has been handed down to the Rajpoot of the present day. The sanguinary part of this ceremony would, according to Mr. Colebrooke, appear like that of the *purushamedha* or *human sacrifice*, to be merely nominal, the horse, after certain ceremonies, being let loose. Mr. Ward, however, states that he was liberated only for a twelve month, when he was again taken, and being magnificently caparisoned, was, after various preliminary proceedings, slain by the hota or priest. He who offers a hundred sacrifices of a horse is entitled to the throne of Indra. —(*Cole. Myth. Hind. p.* 374.) But in the Rig Veda, are two hymns, describing the sacrifice of the horse, which leaves no doubt that the early ritual of hinduism did authorise this sacrifice as a burnt offering to the gods. As, however, these two, in all the body of hymns in the Rig Veda, alone relate to it, it may be inferred that even then, the rite was falling or had already fallen into disuse. As described in the Rig Veda, it appears that the horse was immolated, and afterwards cut up into fragments, part of which were eaten by the assisting priests, and part offered as burnt-offering to the gods. This sacrifice is described in the Puranas as one of the highest order, insomuch that if it be performed a hundred times it elevates the sacrificer to the throne of Swarga, and thereby effects the deposal of Indra himself. In the Rig Veda, however the object of this rite seems to be nothing more than the acquiring of wealth and posterity; and even in the Ramayana it is merely performed by king Dasaratha as the means of obtaining a son by a universal monarch, but it was performed by kings in celebration of auspicious events, especially after marriage, in the hope of securing issue, when largesses were distributed to the brahmans and officiating priests. It seems also to have been performed by kings, in assumption of supremacy, on which occasion their tributary sovereigns were the officiating priests. On this point Col. Tod mentions, that when Yudishtra was firmly seated on his throne, he resolved to signalise his reign and paramount sovereignty by the solemn rites of Aswamedha and Rajsoo, in which princes alone officiate, every duty, down to that of porter, being performed by royalty. The "Steed of Sacrifice" was liberated under Arjoona's care. He wandered whither he listed for twelve months; and none daring to accept this challenge of supremacy, he was reconducted to Indraprestha, where, in the meanwhile, the hall of sacrifice was prepared, and all the princes of the land were summoned to attend. The hearts of the Kuru burned with envy at the assumption of supremacy by the Pandu, for the prince of Hastinapoor's office was to serve out the sacred food. Animate creatures and inanimate, things have been objects of adoration amongst most of the nations of the earth: the sun, the moon, and all the host of heaven; the sword; the serpent; and the horse, and the last seems to have been worshipped as a type of the sun by all the Sytbic races.—*Tod's Rajasthan, Vol. i. p.* 76. The last Aswamedha was undertaken by the celebrated Sowaie Jey Sing of Amber; but the milk-white steed of the sun was not turned out.—*William's Story of Nala, p.* 119-209. *Tod's Rajasthan, Vol. I. p.* 63. See as to the sacrifice of the Cow, under Cow also LAKSHMI.—INDIA, 340. SACRIFICE.

ASWINA, the first month of the hindu lunar year. According to Warren, the 6th solar hindu month, when the sun is in the sign Canya, answering to the Tamil month Paratasi. According to Ward, this month is named from the stellar mansion Ashwini the name of a mare.

ASWATHAMU—S. TEL. అశ్వత్థము. Ficus religiosa, *L.*

ASWAYLANA SUTRA, a portion of the Rig Veda which contains the enumeration of the Gotras and their sub-divisions, but in a very involved and unintelligible style. See Kasyapa.

ASWICULAPA, in hindu mythology, are genii.

ASWINI, in hindu mythology, a form of Parvati or the earth goddess, as a mare, in which Surya, the Sun, breathed, producing the Aswini Kumara.

ASWINI. The twins or Gemini of the hindu Zodiac. In hindu mythology, the physicians of the gods and seemingly corresponding to the Dioscuri, Castor and Pollux.

ASWINI KUMARA, according to one legend were two sons of Surya by Sangnya, who taught the art of medicine.—*Taylor.* See Hindu; Kali; Pandu; Polyandry; Saraswati; Surya.

ASYLUM, or refuge places, or sanctuaries, are known in Persia as Bast. The [illegible] prevailing in the mahomedan East, of having places of asylum, owes its ori- origin probably to the Mosaic law concerning the six cities of refuge, which were allotted to such as had slain any person at unawares. "Then shall ye appoint you cities to be cities of refuge for you; that the slayer may flee thither, which killeth any person at unawares. And they shall be unto you cities for refuge from the avenger; that the manslayer die not, until he stand before the congregation in judgment," &c., &c. Numbers xxxv. 11, 12. See likewise in Joshua xx. 1-9, for the names of the six cities of refuge, and the rules laid down for them. A place of refuge, somewhat similar to the Persian "Bast," existed formerly in the city of London, where debtors could not be molested by their creditors, and were out of reach of pursuit. This place bore the name of Alsatia, and embraced the space between Blackfriars-bridge and Temple-bar, leading to the water side. A similar place existed in Liverpool (perhaps still in use) and Holyrood precincts in Edinburgh were similarly free.

There was an ancient law of Athens analogous to the Mosaic, by which he who committed "*chance-medley*," should fly the country for a year, during which his relatives made satisfaction to the relatives of the deceased. The Greeks had *asyla* for every description of criminals, which could not be violated without infamy. Gibbon gives a memorable instance of disregard to the sanctuary of St. Julian in Auvergne, by the soldiers of the Frank king Theodoric, who divided the spoils of the altar, and made the priests captives: an impiety not only unsanctioned by the son of Clovis, but punished by the death of the offenders, the restoration of the plunder, and the extension of the right of sanctuary five miles around the sepulchre of the holy martyr.—*Tod's Rajasthan, Vol. I. p.* 527. *Baron C. A. De Bode's Travels in Luristan and Arabistan, p.* 70.

ASYSTASIA COROMANDELIANA, *Nees.*

Syn.

Ruellia Zeylanica, *Roxb.*
„ Intrusa, *Vahl.*
„ Secunda „

Midde-kire... ...	TAM.	Tappeta	TEL.
Mukku mungera...	TEL.	Venna Katte-tige...	

One of the Acanthaceæ; a common weed in hedges; flowers either lilac, or white; the leaves are used mixed with others as greens. *Jaffrey.* See Vegetables of Southern India.—

ASYSTASIA FORMOSA. This plant abounds on the Coromandel Coast; the flowers are purple and it is readily grown from seed.—*Riddell.*

ASZULPOOR, a town in L. 76° 25' E. and L. 17° 13' N.

AT. SANS. also **ATA** BENG. HIND. Anona squamosa: Custard apple.

ATABEG, also **ATABEK**, in ancient Persia an officer or petty prince,—Ruler of a province. Luristan seems to have been the latest territory so occupied, until *Changheez Khan* with his destructive hordes of Tartar and Moghul, overwhelmed the land, spreading fire, slaughter, and pillage in every quarter. Ali Khan, or Hoolakoo Khan, the grandson of Changheez Khan completed the conquest of Persia, and afterwards subdued and took Bagdad, putting to death the last of the once powerful khalifa. He also employed his forces in extirpating that singular and dangerous set of desperadoes, the Assassins, well-known in the annals of the crusades. See Luristan.

ATA CHIKA. അത്തച്ചിക്കാ MALEAL, Fruit of Anona squamosa. Custard apple.

ATALANTIA MONOPHYLLA, *D. C.*

Limonia monophylla, *L.* Turræa virens, *Koee.*
Limonia pumila, *Burm.* Trichilia ? spinosa, *Willde.*

Wild-lime ...	ENG.	Kat-elle-micha maram,	TAM.
Makhur limbo ...	MAHR.		
Malvaregam	MALEAL.	Adivi nimma ...	TEL.
		Konda nimma	

This small sized tree is found on the Malabar and Coromandel Coasts, and is one of the most common trees in the green-wood jungles or "races" about the ghats of the Bombay Presidency, and at Mahabaleshwar. It is less common below and inland. Its hard, heavy, wood is white or pale yellow, and is very fine or close grained; it is however not procurable in pieces which would square more than four inches, and but for this it would be suitable for cabinet purposes.—*Jur. Reports, Madras Exhib. Dr. Wight, Dr. Gibson. Hog. Veg. King.* 138. *quoted in Cyclop. of India. Voigt.* 138. Wight also figures A. floribunda and Voigt with a note of interrogation names A. ? puibgera as a shrub of Assam.

AT-ALARI. அத்தஅலரி. TAM. Syn. of Polygonum barbatum.

ATALA RAYUTA, of Rhatore descent. See Inscriptions, *p.* 391.

ATALMALICA, a town in L. 85° 13′ E. and L. 21° 13′ N.

ATAKA-MAMIDI. అటకమామిడి TEL. Boerhaavia erecta, *L.* B. recumbens.

ATA MARAM. അത്തമരം. MALEAL. Unona discolor.

ATAP. MALAY. Leaves of Nipa fruticans, used as thatch. This palm grows very abundantly in Tenasserim, the Malay Peninsula. and Eastern Archipelago. The thatch is made of the fringe of this palm's leaves, doubled down and sewed on sticks or lathes of bamboo.

ATASI—S. BENG. అతసి. TEL. Linum usitatissimum, *L.* Flax.

ATASH KHOR. Pers. آتش خور Tetrao rufus.—*Linn.* The two persian words signify fire eater. It is the chakor partridge of India.

ATAVI DEVI, the hindu Diana. See Saraswati.

ATCHA-MARAM. ஆச்சா-மரம். Tam. Ebony. Bauhinia racemosa.

ATCHAR. Hind. Pickles.

ATCHA WOOD. Anglo-Tam. Diospyros ebenaster. Bauhinia racemosa. Ebony. Any of the ebony woods.

ATCHUEKABAD, a town in L. 81° 22′ E. and L. 25° 59′ N.

ATCHUNNOO, a town in L. 70° 33′ E. and L. 35° 2′ N.

ATE of the Philippine, a species of Anona.

ATEE, a town in L. 84° 39′ E. and L. 24° 53′ N.

ATEES. Beng? Hind. A word applied to very dissimilar substances. According to Dr. Royle, Atees is the root of the Aconitum heterophyllum and forms the medicinal Atees of the Indian bazars, employed as a tonic in fevers. But the substance sold under that name, in the South of India, perhaps over India generally, is quite inert, for two drams as a dose have been given. O'Shaughnessy mentions that the spurious Atees roots are the dry tubera of asparagus sarmentosus : but the same term, in the South of India, is applied to linseed, to which also, the terms Alsi, Tisi and Mashina are applied. According to Ainslie, Atees is the Hindoostani name of the bark of a species of Betula, used in the northern parts of India for dyeing chintz red, and which is sometimes, though rarely, brought to the Coromandel coast. The root of Aconitum heterophyllum has long been celebrated as a tonic and valuable febrifuge ; it is intensely bitter and slightly astringent, with an abundance of farina. There are two kinds of atees, the black and the white, both equally valuable. The true bitter atees is devoid of any astringency, yields to water 18 per cent. to alcohol 32. In any trial of this medicine prescriptions should invariably give the vernacular name, to prevent confusion with the formidable aconite.—*Cat. Ex*, 1862. *Ind. Ann. Med. Sci. for April* 1856, *p.* 395. *Dr. O'Shaughnessy Bengal Dispr. Ainslie's Mat. Med. p.* 141. *H. f. et T. O.*

ATENEE PROMACHOS, at a meeting of the Asiatic Society, there was exhibited an engraved figure of Atenee Promachos, on red cornelian of Greek execution, from the north-west, being according to Colonel Cunningham, a copy of the celebrated statue by Phidias in the Parthenon.

ATETI, the female power of Wak, the supreme being of the Galla race of Shoa.

ATGAUW, a [illegible] hibition of 1855, L. 20° 22′ N.

ATHA, according to Pt[illegible] the Shatt-ul Arab.

ATHABOO, near Tinnevelly [illegible] above the sea, with a rain fall of 40 [illegible] Tea trees grow luxuriantly.

(ATHALE. Tam. also, ADDALE. Tam. Jatropha glauca.

ATHAMANTHA AJOWAN. Wall. Ptychotis ajwan D. C.

ATHAMANTA MACEDONICA, is used in the East as a perfume for clothes. It is, for Europeans, over penetra[illegible] *Hog. Veg. King. p.* 378.

ATHANASIA ANNUA. Cape plants, cultivated in India, flowers of a very pretty yellow colour, generally known as one of the everlasting flowers.—*Riddell.*

ATHANASIUS NIKITIN. A citizen of Tver, who about the year 1470, in the time of Ivan III, visited the kingdoms of the Dekhan and Golcondah, but is reported to have died on his return, before he reached Smolensk. The record of his voyage was written by himself, and delivered to the Diak, a kind of Secretary of State to the Grand Duke.—*India in the 15th Cent.*

ATHARAVANA or ATHARAVEDA, the fourth book of the Vedas. It comprehends the whole science of hindu theology, metaphysics and philosophy. See Arian ; Bible ; Hindu ; Roth ; Veda ; Vidya.

AT'H-BHYEEA, a branch of the Bazigur.

ATHENE CASTANOTUS, a bird of Ceylon. See Aves. Birds, Ornithology.

ATHEREOSPERMA MOSCHATA, a plant of Australia, where its bark is infused and partaken of as tea.—*Hog. Veg. King. p.* 667.

ATHI THRIPELI. Maleal. Pothos officinalis.

ATHERINA, of this genus of fishes, several Indian species are known A. Australis. A Brownii, and A. Japonica. A. Brownii is the clupea of authors.

ATHERURA, a genus of mammals of the family Hystricidæ, and sub-family hystricinæ. Only one species of Atherura is known in India.

ATHOON, the chief town of the Mair or Mera race, the mountaineers of Rajpootana, and the country is styled *Mairwarra*, or "the region of hills." The Mair is a branch of the *Mena* or *Maina*, one of the aboriginal races of India. He is also called *Mairote* and *Mairawut* ; *Mairwarra* is that portion of the Aravalla chain between Komulmer and Ajmeer, a space of about ninety miles in length, and varying in breadth from six to twenty. Rajpootana rises from three to four thousand feet above the level of the sea. *Mera* is 'a mountain' in Sanscrit ; *Mairawut* and *Mairote* of or belonging to the mountain ; the name of the Al-

...*dainole*, has the same ...om prevailing i *Mair* are a branch of the ...having places ...rtant division of the *Mena*, origin probabl... consists of as many branches as the six ci...querors, the Rajpoots. All these wild such...s have the vanity to mingle their pedigree "with that of their conquerors, though in doing so they stigmatize themselves. The Cheeta-Mena accordingly claim descent from a grandson of the last Chohan emperor of Delhi. Unail and Anoop were the sons of Lakha, the nephew of the Chohan king. The *coco-nut* was sent from Jessulmer, offering princesses of that house in marriage, but an investigation into their maternal ancestry disclosed that they were the issue of a Mena concubine: and their birth being thus revealed, they became exiles from Ajmeer, and associates with their maternal relatives. Unail espoused the daughter of a Mena chieftain, by whom he had Cheeta, whose descendants enjoyed almost a monopoly of power in Mairwarra. The sons of Cheeta, who occupied the northern frontier near Ajmer, became *mahomedans* about fifteen generations ago, when Doodha, the sixteenth from the founder of the race, was created Dawad Khan by the hakim of Ajmér; and as Athoon was his residence, the "Khan of *Athoon*" signified the chief of the Mairotes. Chang, Jhak, and Rajosi, are the principal towns adjoining Athoon. Anoop also took a Mena wife, by whom he had Burrar, whose descendants have continued true to their original tenets. Their chief places are Burrar, Bairawara, Mundilla, &c. The Meenas were always notorious for their lawless habits, and importance has been attached to them so far back as the period of ... the celebrated prince of Ajmer, whom the bard Chund states to have reduced them to submission, making them "carry water in the streets of Ajmer." Like all mountaineers, they broke out whenever the hands of power were feeble.—*Tod's Rajasthan, Vol. i. p.* 681.

ATHUR, the ruined city near the mouth of the upper Zab, now usually known by the name of Nimrud, is called *Ashur* by the Arabic geographers, and in Athur we recognise the old name of Assyria, which Dio Cassius writes Atyria, remarking that the barbarians changed the Sigma into Tau.—*Muller's Lectures, p.* 233.

A-THU-YA, a fallen nat, a spirit, in buddhism of the Burmese.

ATHY, a goddess of the Assyrians. Ken.

ATIBALA CHETU. అతిబలచెట్టు. Sida rhomboidea, *R. iii.* 176.

ATI MADHURAMU. అతిమధురము. Liquorice. This is only sold in the bazaar as a medicine.—If imported it is the root of *Glycyrrhiza glabra*;—if indigenous, it is obtained from the root of *Abrus precatorius.*

ATI-MARAM. TAM. அத்திமரம். Ficus racemosa. *Linn.*

ATI-MERALU. MALEAL. അത്തിമരു Ficus excelsa. *Wall.*

ATI MUKTAMU. *S.* Hiptage madablota, *Gaertn.* also Dalbergia oojainessis, *B.* See Krishna.

ATINAR. TAM. அத்திநார். Fibre of Bauhinia tomentosa.

ATI-OLU. MALEAL. അത്തിയാല Ficus racemosa. *Linn.*

ATIPALA, HIND. Abutilon Indicum.

ATI-SINGHYA, HIND. a species of Aconite. See Bish.

ATISHI GULABI RUNG. HIND. Amongst dyers, a bright rose colour, from Persian atash, fire.

ATISH BAZI. GUZ. HIND, PERS: fireworks.

ATI-TIPLI. TAM. Scindapsus officinalis. Schott.

ATIVASA. TEL. అతివస. Aconitum ferox. —*Wall Hook. fil. & Th. Fl. Ind. i.* 56.

The Sanscrit syn. is *Ali visha* from *ati* "very" and *visha* "poison." Wallic... applies it to a species of *Betula* which ... to be an antidote to poison, and in like manner the word *nirvisha* "an antidote" ... is given to some kinds of aconite. Royle Ill. ... *O'Sh.* 168. But the Telugu word has been ... understood as designating an ... 57.—poison which is the character of the *vish*, *bish*, or *bikh* of upper India.—*O'Shaughnessy* 155. See Attees.

ATKALA DESA, Cuttack or Orissa.

ATKE-KULAY BENG. Arachis hypogea.

ATLASS. GER. Satin.

ATMACOOR, two Indian towns of this name, one in L. 78° 40′ E. and L. 15° 51′ N., the other in L 79° 12′ E. and L. 17° 29′ N.

ATMA-DEVATA, SANS. From Atma, self, and devata, a god, a guardian deity.

ATMADDO. See Ceylon.

ATMAGUPTA. SANS., Cowhage.

ATMAN. SANS., also TMAN. SANS. Life, animal life.

ATMOSPHERIC AIR.

Air Atmosphérique. FR.	Atmospharische Luft.
Howa. [illegible] HIND.	GER.
and PERS.	Ahvee. TAM.
Bad. باد PERS.	Agassium. TEL.

The atmosphere everywhere surrounds the globe, to a height of 45 miles.

It is an invisible gaseous body, devoid of odour and of taste, compressible, easily expanded by heat. The mahomedans of India and Persia, use the words Ab-o-Howa, water and air, to indicate climate. The hindus of

India, use "water" for the same subject.—*Royle's Mat. Med., p.* 22.

ATN IL, HIND. Astragalus spinosus.

ATOLL, in the Eastern Archipelago and the Pacific ocean, are many of these Coral Islands. An atoll differs from an encircling barrier reef only in the absence of land within its central expanse; and a barrier reef differs from a fringing reef in being placed at a much greater distance from the land with reference to the probable inclination of its sub-marine foundation, and in the presence of a deep water lagoon-like space or moat within the reef." The polypes that make these, are chiefly Antipathes glaberrima, Madrepora corymbosa; M. pocillifera; Gorgonia tuberculata and two species of Astrea, Leiopathes glaberrima, and L. Lamarckii. Atolls sometimes constitute a great circular chain enclosing a deep basin, but opening by one or more deep breaches into the sea. Sometimes they surround a little island by a girdle of reefs; or form the immediate edging or border of an island or continent. Atolls occur in the Pacific, in the Chinese Seas, in the Marianne and Phillipine Islands, Maldives and Lacadives, and, also may be mentioned the atolls of Sunda group.—*Louis Figuier Ocean World, London* 1868. *The structure and distribution of Coral Reefs, by C. Darwin, p* 146. *Macgillivray Voyage, Vol. i. p.* 73. See Coral. Polype.

ATR, (Arabic); UTR; ITR; OTTAR, and OTTO, for it is spelled in all these varied forms, is a fragrance, perfume, or essence of flowers, though by Europeans the term is confined to that from roses. An *atr-dan* contains the Atr, and the perfumer, druggist or distiller, is called Attar. The perfumes sold under the name of Atr are as various as are the flowers from which they are extracted, and the term Atr has the same extent in India, as the word perfume in English. At the Hyderabad Exhibition of 1854, there were exhibited ten kinds of Atr; those from Aurangabad, were named Sohag: Panch; Bahar; Amber; Moothea, Minbohvin; others from Jasminum: Pandanus odorotissimus; four from Hyderabad were named Mujmooah, one from the Lawsonia inermis: and another called the Rahut-i-Rooh; literally Heart's Ease. In addition to the above, in the Madras Exhibition of 1855, were observed from Hyderabad, Atrs, named

Chambaley,
Ryatroo,
Inah,
Kaserah,
Champah,
Gool,
Banjeree,
Burmookee,
Dhoolpend,
Cuscus,
Moleserree,
Rowseh,
Sona Manthre,
Nohrutten,
Sandal,
Muzmah,
Moteab.

They are sold by weight and vary in price from 4 Annas to 5 Rs. per tola.

A very complete collection of these oils was exhibited at the M[illegible] Exhibition of 1[illegible] the [illegible] ex- [illegible] as [illegible] in- [illegible] to [illegible] comprising [illegible]rani. [illegible]TE. T[illegible]

Sandal wood,
Star Anise,
Coriander,
Pepper,
Bitter Orange,
Cummin,
Screw Pine,
Cloves,
Patchouli,
[illegible]uscu[illegible]
K[illegible]int,
Nutmeg,
Cardamom,
Indian Southern wood,
Jessamine,
Bishop's weed,
Sweet Fennel.

Perfum[illegible] [illegible]ually obtained in India by en[illegible] [illegible]metimes by distillation. [illegible] succes-sive batches [illegible] [illegible]il becomes impr[illegible] grease, animal fa[illegible] spreading it on th[illegible] filling this with fra[illegible] it another dish also greased[illegible] the grease has become frag[illegible] [illegible]e living flowers continue to give out [illegible]ir odour. To remove the odour from the fat, it is scraped off the plates and put into alcohol which takes up the odour and becomes scent and the grease again becomes odourless. The rose, orange, acacia, violet, jasmine, tuberose and jonquil are treated in this way by the French flower farmers of the Var. A ton of rose flowers will yield about 40 ounces of Atr or Otto worth £200 Sterling and the residuary water highly saturated with odour, another £10. The Atr or Otto of Roses, is a highly valuable and delightful perfume. It is an essential oil, prepared in several countries in the East, and has this remarkable composition, that it is a compound of two oils, one liquid and the other solid, and inodorous. At Ghazipore in Bengal, the Attăr is always made at the beginning of the season when the nights are cool. To procure the oil, the roses are put into the still and the water passes over gradually as in the rose-water process. After the whole has co[illegible] over, the rose-water is put into a large me[illegible] basin, which is covered with we[illegible] tied over to prevent insects or dust g[illegible] it, and being let about two feet into the grou[illegible] which has been previously wetted with [illegible] it is allowed to remain quiet during t[illegible] night. In the morning early, the littl[illegible] Attăr which is found on the surface [illegible] rose-water during the night, is ren[illegible] means of a feather and carefully placed in a phial. Day after day as the collection is made, it is placed for a short period in the sun, and after a sufficient quantity has been procured it is poured off clear, and of the colour of amber, into small phials. Pure Atr has, at first, a pale greenish hue, but in a few weeks it becomes of a pale yellow. It is generally calculated that 100,000 roses will produce 180 ns of Atr, and the ... of 100,000 rose ... es from 40 to 70 are and the tolah ...) grains, of the division ld at 80 and 9(... pees. At this price as [illegible] be supposed, i ... rarely if ever used poo by the wealthiest o ... atives, and the natimin urts employ the atr "with perfumed oils prep or by their own distil ... lers from the Jasmine sambac and grandi flora) and bela and Lem grass (Andropogon schœnanthus). The Rosa oil, the oil of Neemaur (Andropogon Iwarancusa), Atr of khus-khus, Newar oil, A m ini, a volatile oil, erroneously called oil of s kenard, is met with in the shops and obtained from a plant named by Dr. Royle, Andropogon Calamus aromaticus. See Citronella oil: Pa houly: Ægle marmelos; Jasmine, Gingelly, M inga, Sandal-wood oil.

ATRAMENTUM, LAT. Ink.

ATPUDAN, PERS. Perfume box.

ATREE, a town in L. 76° 27′ E. and L. 20° 13′ N.

ATRI, a river near Surkole in Baulea district.

ATRI, one of the Rishi of the Hindus. See Brahmadica; Hindu; Inscriptions.

ATRIPLEX LINN. Of this genus A. hortensis, the garden orach, occurs in Tartary and its seeds are described as emetic. One species is known in Sind as the Juree. *O'Shaughnessy, p.* 466.

ATRIPLEX HETERANTHA. *Thoyah keeray*, TAM. A common weed; the leaves used as greens, make an excellent vegetable: is found in abundance in Southern India. Is also cultivated.—*Jaffrey.* See Vegetables.

ATROPA ACUMINATA, ROYLE.

Astrang ...	AR.	Astrang ...	HIND.
Tufa-us-Shaitain	"	Lufahat ...	MALAY.
Luckmuna ...	BENG.	Mardami Siah...	PERS.
Lukmuna ...	HIND.	Yebruj ...	"
Lukmuni ...	"	Kat-juti ...	TAM.

These names are of very doubtful correctness, but are given on Ainslie's authority. *A. acumi-[illegible]a*, (Royle) exists in Kunawur, on the north-face of the Himalayas.—*O'Shaughnessy, p.* [illegible]

ATROPA MANDRAGORA. LINN.

trang	AR.	Astrang ...	HIND.
fa-us-Shaitan	"	Lufahat ...	MALAY.
[illegible]	BENG.	Mardam-i-siah	PERS.
ake	ENG.	Yabruz ...	"
una	HIND.	Yebrukh	
ni	"	Kat-juti ...	TAM.

The *Mandragora*, or mandrake, the root of which was so celebrated in the magic rites and toxicology of the ancients, is known in the bazars of Central Asia and the north of India. Its properties are identical in nature with those of A. belladonna but weaker in consequence of drying and decomposition of the atropia.—*O'Shaughnessy, p.* 466. *Hog's Veget. King-*

ATROPIA. See Henbane seed.

ATSAK-ZYE PUSHT. An Afghan tribe.

ATSHEY. A tin mine in Banca. See Tin.

ATTA. GUZ. HIND. Meal; wheaten flour. When sifted *Maida* is the finer part of wheaten flour; and *soojee* the coarser. In India, the unsorted wheaten flour, the Atta, does not readily leaven into wheaten bread, and the sifted sooji is used solely for that. The natives who use wheat use the Atta or unsorted flour and the Maida where obtainable.—*Mrs. Hervey's Adventures of a Lady in Tartary, Vol. I. p.* 62.

ATTADI. CYNG. Chiretta.

ATTAI-KAI. TAM. Ficus racemosa. அத்திகாய்.

ATTAI SAGHUR, a town in L. 94° 30′ E and L. 27° 0′ N.

ATTALEA FUNIFERA. A valuable palm, of the maratime provinces of Brazil. A coarse black fibre is obtained from the dilated base of the petioles. It is collected by the natives, and partly used for consumption, partly exported to Europe, tied up in bundles of several feet in length, and sold in London under this name at about £ 14 the ton. It is manufactured into cordage in its native countries, and as it is light, cables made of it do not sink in the water. It yields the *Coquilla Nuts* and might advantageously be introduced into Southern Asia. They are excessively hard, beautifully mottled with dark and light brown, and capable of aking a very high polish, they are extensively sed for turnery work, especially in making the andles of bellpulls, small tops, the knobs of walking sticks, umbrellas and other articles. In 850, about 250,000 nuts were imported into England and sold at 30 to 40s. the 1,000.—*Seeman. Holtzappfel. Poole's Stat. of Com.* 98.

ATTA PATTI, అత్తపత్తి. Mimosa pudica.

ATTAR. ARAB. PERS. HIND. a druggist, a perfumer, a distiller.

ATTARAD. AR. The planet Mercury.

ATTAVEESY, a district in the West of ndia largely occupied by Kols. See Kol.

ATTEET, a monastic order of hindus. Jhaoca, one of their monasteries, is near Bhynsror and was founded by the Bhynsror Chiefs. Colonel Tod mentions that their monastery is an isolated dwelling, on the terraced roof of which he found a party of the fraternity squatted round a fire, enjoying the warmth of the morning sun. Their wild appearance; their matted hair and beard had never known a comb; their bodies were smeared with ashes (*bhaboot*), and a shred of cloth round the loins seemed the sole indication that they belonged to a class possessing human feelings. Their lives are passed in a perpetual routine of adoration of *Chatoorbhoojah*, the 'four-armed' divinity, and they subsist on the produce of a few patches of land, with which the chiefs of Bhynsror have endowed this abode of [illegible] ascetics, or with what their patrons or town's-people and passengers make up to them. The head of the establishment came fo[illegible] to bestow his blessing on Colonel Tod, [illegible] to beg something for his order. He, howeve[illegible] in the first place, elected Colonel Tod, one of his *chelas*, or disciples, by marking his forehead with a *tika* of *bhaboot*, which he took from a platter made of *dhak*-leaves.—*Colonel Tod's Travels.*

ATTEI. Tam. அட்டை. Leeches.

ATTHAKATHA, a commentary on the sacred writings of the budhists.—*Hyder's Eastern Monachism, p.* 434.

ATTHA MARAM. Maleal. Anona squamosa. ആത്താമരം.

ATTICA MAMMADI. Tel. అట్టి [illegible] Boerhaavia diandria. Boerhaavia tuberosa.

ATTI CHETTU. అత్తిచెట్టు. [illegible] merata, *Roxb.* perhaps also F. racem[illegible] See Mahratta Sikhs.

ATTOCK, a town in the Punjab, at right bank of the Indus river, in L. 33°, 53 N. and L. 72°, 13' 6" E. The level of the Indus about 18 miles above Attock is 1,049 feet above the sea. The name is said to be derived from the Hindi At'k or barrier, and, formerly, it was said that hindus hesitated to go by the west of the Indus lest they lost caste. The name was bestowed by the Indus only in modern times, when the Hindus, from difference of faith, became exclusive. Menu tells us that hinduism was established in Central Asia. Arrian says that Omphis was son of Taxiles and that his father dying at this time, Omphis did homage to Alexander, who invested him with the title and estates of his father Taxiles. This name, itself, perhaps, was given from *Tak.* Colonel Tod supposes the name of the Indus, at *Attac*; the term *Uttak*, or 'forbidden,' according to modern signification, has only been applied since the mahomedan religion for a time made it the boundary between the two faiths. According to Fraser, Attock in desert tracts in Khorasan means the skirt or foot of the hills, and commencement of the desert, and it is commonly used for the desert itself in these parts. Attock on the Indus is near the Ab-duzd, a subterraneous passage of water, *lit*: water stealer. *Tod's Rajasthan, Vol. I, p.* 10[illegible] *Tod's Travels, p.* 155. *Vigne. Pers. Nar.* [illegible] *Schlagentweit.* [illegible] *Fraser's J*[illegible] *Korasan, p.* See India, [illegible]criptions, 383 Kabul, 439. Kaffir; Ka[illegible]har

[illegible] a river near Dinajepoor.

ATTU KEDASA. Maleal. ആട്ടുകിടേസാ [illegible] aspera.

ATTUN, the national dance of the D[illegible] See Afghan. Durani.

ATTU NATTE. Tam. Æschynomene a[illegible]

ATU. Sans. Kamdeo.

ATUKULA BADDU. అటుకులబద్దు. [illegible] tomentosa.—*Heyne.*

ATURIA BELEHERI, also A. ORN[illegible] See Hydridæ.

ATUWAWA, the Singhalese form of [illegible]katha.—*Hyder's Eastern Monachism, p.*

ATVI. Sans. Forest, Grove, Wild

ATWEN-WOON, Burmese [illegible] lors, of whom there are four. They are [illegible] in rank to the Woon-gyi, but between them and the Woon-dook, precedence is disputed. *Yule's Embassy, p.* 72.

AUBER, Author of Rise and Progress of the British Power in India, 2 Vols. 8vo.

AUCH. Hind. Morinda citrifolia.

AUCHOO, Beng. Raspberry. Rubus pauciflorus.

AUCKLANDIA COSTUS Falconar.

ust	Arab.	Kust-i-Arabi...	Pers.
ostus... ...	Greek.	Kustak	„
ot	Guz. Hind.	Godu Mahanel	Singh.
plate..		Koot...	Sansc
tchak		Koost	„
cha	Malaya.	Kooshta	Syri
Sepuddy ...	„	Koostum	Sansc. Ta
Kust-i-Hindi...	Pers.	Changla...	T.

This plant is an annual. It grows in t[illegible] north of India, on the southern slopes of t[illegible] Himalayas and is of general occurrence ab[illegible] Kaghan, and every part of that district. [illegible] yields a fragrant root, the Costus of the G[illegible] and Romans, which in Cashmere is emp[illegible] to preserve clothes, and is largely exported to China, where it is reduced to powder and burnt in the temples. In passing loads of it, the aromatic odour is distinctly perceptible owing to intestine war in China, the demand has diminished in Kaghan. It sells for two rupees the maund.—*Cleghorn's Punjaub Report, p.* 177. *Royle, on the Productive Resources of India. Simmond's Commercial Products McClelland. Royle's Illustr. Him. Botany, p* 360. *Hog's Veg. King, p.* 461; *Birdwood's Bomb. Prod.* See Costus; Putchuk.

AUGURIES. Divination by lots, auguries and omens, by flights of birds, as practised by the Getic nations described by Herodotus, and [illegible] Germans by Tacitus, will be still [illegible] amongst the Rajpoots. [illegible]ir books on this subject could supply [illegible] of the Augurs and Aruspices, Ge[illegible]n.

The mahomedans in [illegible] lots and in Sind is a practice [illegible] the mountaineers of Scotland it was c[illegible] nachd, or, "reading the speal bone [illegible] the blade-bone of a shoulder of mutton. The poet Drayton alludes to the practice of this "divination strange" amongst the "Dutch made sh," settled about Pembrokeshire, in his lbion, Song 5. Camden notices the same stition in Ireland. *Richard F. Burton's p.* 404.—*Tod's Rajasthan, Vol. I, p.* 71.

CUBA JAPONICA. A bush of Japan, th spotted leaf.

DI, the 4th solar month. Tamil denomination, answering to the hindu Sravana, when n is in the sign Carcata.—*E. Warren Sanhita.* See Varsha.

GER, a ship carpenter's tool, imported ngland and America.

GUSTA AND PIGEON ISLANDS, two small islands in Lat. 0° 37' S. in the Dampier Strait, south of King William island.—*Horsburgh.*

AUGUSTA. Beng. Coronilla grandiflora.

AUGUSTUS, Emperor of Rome, when at Antioch received an embassy with letters from king Pandyon of ancient Dravira. The embassy gave valuable and curious presents, amongst others a man without arms, a serpent ten cubits long. In th letter, the king described himself as ho ing sway over six hundred kings, and ask the friendship of Augustus. In the emb vas an Indian named Zarmanochegus, fr aragoza or Baroach who accompanied Augus is to Athens and there, as Calanus had done, ommitted-self immolution before the emperor. His tomb, known as the Indian's tomb, was to e seen as late as Plutarch's time. See Pandiya.

AULANTHA. Maleal. ഔലന്താ Syn. Calosanthes Indica.—*Blain.*

JM, See Om.

UMEE, a river near Gorukpoor.

AUMOO, Hindi of Bannoo. A de

AUN-LASAR, Hindi. Vitreous sul

AUNG, Khan of the Keraite Mongols, celebrated in Europe, under the name of Prester John. He was a contemporary of Changez Khan whom, at the instigation of jealous enemies, he attempted but failed to destroy.—*Elliot, p.* 498.

AUNGRA. Hind. Syn. of Emblica officinalis, Gært.

AUNWERA. Hind. Phyllanthus emblica.

AURANGABAD, in L. 19° 53' N. and L. 75° 21' E. in the Dekhan, a large city, greatly decayed, and a military station. The mean height of the station is 1,885 feet above Bom Colabah. It may now have about 15,000 people. It is in the dominions of the nabob of Hyderabad, and has several times, for short periods, been occupied by his predecessors. The daughter of Aurungzeb, son of Shah Jahan, is buried there in tomb, said to resemble the Taj Mahal at Ag. Aurungzeb is buried at Roza 25 miles distant, on an elevated plateau overlooking the valley of the Godavery, and the Ellora caves are excavated on its face. Also, the fortress of Dowlatabad is near. The very handsome ola tomb which Aurungzeb erected to daughter's memory, is in imitation of Taj Mahal at Agra. There is also a ter mill at the Shah Mutafar garden. It is of te marble, in which elegant arabesques and flowers are carved with great skill, and the doors are ornamented with plates of metal, in which also are flowers and ornaments. Near the osque is a handsome marble hall, and round t a neglected garden.—*Sinnet's Voyage, p.* 159. See Dowlutabad.

AURANGZEB, son of Shah Jahan, and randson of Akbar. His principal residence in he latter part of his long reign, was in the kkan and he died at Ahmednuggur—where was embalmed, and the body removed to e plateau of the hill overlooking Ellora. Europe was made more particularly acquainted with Aurungzeb by Bernier's mention of him in his Travels. He died in 1707, and the Indian mpire of the Moghal was again desolated by ch opened the way to India to a Nadir Shah (called, likewise, Kouli Khan). Nadir, who was the a shepherd of Khorassan, began his rerkable career as a highway robber; but in one of those political revolutions which so frequently occur in despotic countries, he rose to the dignity of king of Persia, and in 1739 penetrated to Delhi; plundering, burning, and laying waste, not sparing even the child in the cradle. After a dreadful massacre, he, however, gave the throne to the weak Mahomed, a son of Aurangzeb, and soon afterwards returned to Ispahan, with the most prodigious booty recorded in history. Among it was the throne representing the tail of a peacock displayed, composed of precious stones, which still adorns the audience chamber in the palace at Teheran. The Moghul empire attained its utmost extent in Aurangzeb's reign. His authority reached from the 10th to the 25th degree of latitude and nearly the same in longitude, and his revenue exceeded thirty millions of pounds sterling, in a country where the products of the earth are four times as cheap as in England. Both his declared heir, Shah Allum, and Azim, as well as his favourite grandson, were the offspring of Rajpootnis; but, his bigotry outweighed his policy, and he visited the Rajpoots with an unrelenting and unwise persecution.

The bigotry of Aurungzeb endeared him far more to his mahomedan co-religionists than did the liberality of Akbar and even to the present day the memory of Aurungzeb, the persecutor is honored by them far more than that of Akbar the beneficent. It is a fact but little known, that most Asiatic princes profess a trade: the great Arungzeb was a cap-maker, and sold them to such advantage on the 'ninth day'.

fairs, that his funeral expenses were by his own express command defrayed from the privy purse, the accumulation of his personal labour. A delightful anecdote is recorded of the Ghilji king Mahmood, whose profession was literary, and who obtained good prices from his Omra for his specimens of caligraphy. While engaged in transcribing one of the Persian poets, a professed scholar, who with others attended the *conversazione*, suggested an emendation, which was instantly attended to, and the supposed error remedied. When the Moolah was gone, the monarch erased the emendation and re-inserted the passage. An Amir had observed and questioned the action, to which the king replied : " it was better to make a blot in the manuscript than wound the vanity of a humble scholar." After Arungzeb's death in 1707, his son Sultan Mauzum, or Shah Alam the First, succeeded him, but died five years afterwards.—*Tod's Rajasthan, Vol. i. p.* 374, 344. *Bjornstona jerna, British Empire in the East, p.* 98-99. *India* 328. See Mahratta Governments in India. Kalora : Sivaji ; Sikhs.

AURANGPUR, furnishes a clay used at Roorkee for crucibles.

AURANTIACEÆ. See Citraceæ ; Citrus.

AURANTIUM. Lat. Orange.

AURASIUS, Mount Aurasius is behind Tunis and Algiers: the native kabyle on that mountain are fair red haired men and have been conjectured to be descendants of the ancient Vandals. See India, 336.

AUREA CHERSONESUS. The country thus named by the ancient geographer Ptolemy, has been shown by D'Anville to be the Malay Peninsula, and his Sin-Hoa, the Western part of Cochin China. Others have pointed to Galle.—*India in the* 15*th Century*. See Galle.

AURELIANA CANADENSIS. Syn. of Panax quinquefolius.

AURICULA. A genus of shells or molluscs, one species of which Auricula auris Midæ, occurs in the Moluccas. It has been transferred to the genus Voluta.

AURIPIGMENTUM. Lat. Arsenic.

AURORA. Phæton in the Greek mythology was the son of Cephalus and Aurora. The former answers to Aruna the Hindu bird-headed messenger of the sun. The hindu *Aruna* is the Aurora of the Greeks, who with more taste have given the dawn a female character. —*Tod s Rajasthan*. See Arun. Saraswati.

AURUM, Lat. Gold.

AUSENA MARAM. Tam. அசனை மரம் Pterocarpus.

AUSJENI. Maleal. ആസഞ്ഞിന് Artocarpus hirsutus.

AUSTERN. Ger. Oyster.

AUSTRALIA. The primary formations of this continent are equally metalliferous with those of south Eastern Asia. Copper ores have been found at Port Curtis, near the southern extremity of the range which extends along the north-east coast, and as long ago as 1802, Flinders met with indications of copper at Good's Island in Torres Straits, but this suggestion does not seem to have been followed up by the naturalists attached to subsequent expeditions (Flinders' Voyage to Terra Australis, vol. II. p. 120.) Lead and copper mines have been worked in South Australia for some years past, and others have been opened recently in the western coast range, a little to the north of Swan River. Hematitic and specular iron ore and copper pyrites, have been found on the north-west coast near Admirality Gulf. In Australia, the prevailing vegetation differs materially in its character from that of south-eastern Asia, the forms now existing throughout the interior of Australia being identical with those discovered in the coal beds of New South Wales, and, it would seem, in those of Upper India also. The north-east coast is well wooded, chiefly with the Mimusops kauki, trees of which are, there, often 60 feet high and 3 in diameter. —*Macgillivray's Voyage, Vol. I. p*, 106. See India, p. 381 ; Magar, 310, 350 ; Semang ; Palms ; Waringin tree.

AUTEUIL. M. d', a French officer who commanded the French forces at the battle of Amboor and gained the battle. Anwar-ud-din fell in that battle at nearly 100 years of age.

AUTHAULAY. Tam. Jatropha glauca.

AUTHOONDAY-KAI. Tam. ஆதொண்டைகாய். Capparis brevispina.

AUTHUR. See [illegible]ia.

AUTMORA. [illegible] Indian Screwtree, Isora corylifolia.

AUTRUCHE. Fr. Ostrich. See Struthionidæ.

AUVANI. A Tamil month, when the sun is in Libra. See Varsha.

AVA, or AYN-WA, a town in Burmah, in L. 95° 59′ E. and L. 21° 50′ N. It was at one time the capital city. Its state name was Ratnapoora, or Gem-city ; it is stated to have been founded in A. D. 1364, by Thado-men bya, prince of Tagoung, who mastered the kingdoms of Panya and Sagain, into which the country had been divided. The first mention made of [illegible] by any European traveller, is that by Nicolo di Conti, who was there about 1440 (Ramusio, i, 340.) It continued usually to be the royal residence, with some intervals, till the end of the eighteenth century. In 1526, the Shans of Monyin and Mogoung took the city and overran the country, of which they held possession till 1554. In that year the Toungoo king of Pegu, Tshen-byoo-my[illegible] (Lord of many white Elephants) co[illegible] and destroyed the city. The [illegible]nen-tara, who re-established the c[illegible]dom after the fall of Pegu in 1601; appears to have been a natural son of the conqueror. Ava was taken by the Peguers during their resumption of independence in 1752. They were speedily expelled by Alompra, but he always resided at Mout-sho-bo. In 1763, on the accession of Tshen-byoo-yen, Ava again became the seat of royalty. It was however abandoned on the founding of Amarapoora in 1783, and re-occupied in 1828 by the king and queen who entered in great state, accompanied by the white elephant, and by all the dignitaries of the court only to be again deserted in 1837 by Tharawadi who had vowed to make it a heap of ruins.—*Yule's Embassy*, *p.* 184. See Buddha; Jain; India, 311, 344, 345; Karen, 467; Kiayn, Lawa; Mangles; Negrais; Nicolo di Conti, Petroleum, Rangoon, Tee.

AVA. ఆవ. Sponia Wightii, *Planch.*

AVA, a drink of the south sea islanders, prepared from the Macropiper methysticum. It is chewed, spat in a bowl, and allowed to ferment and drank. In the Samvau islands, the large ava-bowl is made from the tamanu, *Calophyllum inophyllum*, and occupies a conspicuous place.—*Capt. Elphinstone Erskine, Islands of the Western Pacific, p.* 46.

AVA ARDUI SUR JASAN A Parsee festival held in honour of Ava, the angel, in their theology, who presides over the sea. On this day, Parsees should approach the sea-shore or any stream of water and chant prayers from the Zend, but these people now generally mix with their prayer several hindoo rites such as offering flowers, sugar, cocoanuts, &c., &c. In Bombay a fair is held on the esplanade on this day.—*Paris.*

AVA CROTON. See Croton pavana.

AVADHUTA. SANSC. In the south of India, a religious ascetic mendicant of the Saiva hindus, who, similarly to the Virakta Viragi, has subdued the passions and entranged himself from the interests and emotions of mankind, abandoning religious observances and worldly restraints.—*Wilson.* See Hindu; Sanyasi. Vairagi.

AVA GEM-SAND, comes from the neighbourhood of Ava, and sometimes one of the Shan articles of merchandise. It consists of small fragments of nearly all the precious stones in the country, but garnet, beryl, and spinelle are its principal constitutents, more especially the last, which seems to constitute nearly three-fourths of the whole mass. A single handful will contain specimens of every shade, black, blue, violet, scarlet, rose, orange amber, yellow, wine yellow, and white.—*Mason.*

AVALANCHE RIVER, 6,725 feet above sea, on the Neilgerries.

AVALU. TEL. ఆవాలు. Sinapis alba, ramosa, Chinensis. Any mustard seed, of which several kinds are sold in the bazar.

AVAL VULLI KALANG. TAM. Root of Janipha manihot.

AVANAK. MALEAL. ആവണക്ക Ricinus communis.—*Linn.*

AVANTARA. SANSC. In the brahminical religion, a descent of the deity, in the shape of a mortal, it is an inferior kind of Avatar, and intended to answer a purpose of less moment. It is an incarnation of an inferior kind. See *Acasanavi*; *Oujein*; *Tripati.*

AVA PLANT. KAVA. MALAY. Piper methisticum.

AVARAI PUTTAI. TAM, Cassia auriculata. ஆவாரப்பட்டை.

AVASTA. The religious books of Zoroaster, twenty-one in number, named differently in Zend and Pehlevi.—*The Parsees, p.* 242.

AVATARA. In the brahminical religion, a descent of the deity in the shape of a mortal.

AVANJA. A town in L. 78° 18′ E. and L. 16° 42′ N.

AVANOOR. A town in L. 75° 44′ E. and L. 14° 53′ N.

AVANTI, the ancient name of the modern Oujein; also called Ujjayani, Visala, and Pushpa-Karandini. This city is noticed in the Meghaduta, verses 28 and 31.—*William's Story of Nala, p.* 116. *Captain Edward Warren.*

AVA PEPPER, also called Cava or Kava, is from the Macropiper methysticum of the Pacific. Its root produces a stimulating liquor.

AVATAR. HIND. from the Sanscrit, Avatara, a descent or incarnation, a term employed by the hindus to designate the incarnations of Vishnu usually arranged and named —1. Matsya, or Fish—2. Kurma, or Tortoise —3. Varaha. or Boar—4. Narasingha, or Man lion—5. Vamana, or Dwarf—6. Parasu Rama, the name of a favoured person in whom the deity became incarnate—7. Rama, the same—8. Krishna, the same—9. Budha, the same—10. Kalki, or Horse. Of these, nine are past; the tenth is yet to come and those of Rama and Krishna are the most remarkable.

When the hindus speak of the deity having been thus incarnated, we must understand it with some qualification; for in fact, there is, perhaps, scarcely one point in their mythological religion that the whole race of hindus have faith in. There are sectaries and schismatics without end, who will believe only certain points that others abjure; individuals of those sects dissent from the doctrine believed by the majority; other philosophical sceptics will scarcely believe any thing, in opposition to their easy-faithed brethren, who disbelieve nothing. Thus some Saiva, or followers of Siva, admit the sacredness of the Avataras of Vishnu, but in different degrees of potency and sanctity: they generally admit the personified interposition of the preserving attribute of the deity in the affairs of the world without yielding the point of supremacy in the' prototype. And some zealous Vaishnava, or followers of Vishnu, giving themselves up to his adoration in some incarnation, Krishna or Rama, for instance, reject with indignation, commensurate with their zeal or bigotry, all farther application of divine terms. Hence may, in part, be discerned the liability under which inquirers labour, of being misled by sectaries into receiving schism as orthodoxy, and of forming general conclusions from individual or partial information.

1.—*Matsya or the Fish.*—This Avatara has been supposed to have immediate reference to the general deluge, and to be the same history, disguised in oriental fiction, of that event, as is related in the scriptures. Sir W. Jones (As. Res. Vol. I) assents to the opinion of Bochart, that the fable of Saturn was raised on the true history of Noah: he shows that the seventh Menu, Satyavrata, corresponds in station and character. In his reign, the hindus believe the whole earth to have been destroyed by a flood, including all mankind, who had become corrupt, except the pious prince himself, the seven Rishi, and their several wives; who, by command of Vishnu, entered a bahitra, or spacious vessel accompanied by pairs of all animals. Vishnu, assuming the form of a fish commanded the ark to be fastened by a cable, formed of a vast serpent, to his upe[illegible] horn, [illegible] cured thereby until the flood subsided; when he and Brahma slew a monster, named Hyagriva, who while Brahma was reposing at the en[illegible] convey[illegible]pa, stole the Vedas, and mankind h[illegible] or[illegible]sequently fell into the depths of ignorance and impiety. [illegible] mighty demon is called the prin[illegible]f Danavas; his name means Horse-necked. The Vedas having been recovered, the world was progressively re-peopled with pious inhabitants, descendants of the devout Satyavrata and his favoured companions. The history of this Avatara is the subject of the first Purana, or sacred poem, consisting of 14,000 stanzas, and is concisely told in the eighth book of the Sri Bhagavata, or life of Krishna.

2.—*Kurma or the Tortoise.*—The second grand Avatara of Vishnu, in the form of a tortoise, evidently refers also to the flood. For the purpose of restoring to man some of the comforts and conveniences that were lost in this flood, Vishnu is fabled to have become incarnate again in the form of a tortoise: in which shape he sustained mountain Mandara, placed on his back to serve as an axis, whereon [illegible] gods and demons, the vast serpent Vasoky [illegible]ving as a rope, churned the ocean for the recovery of the Amrita, or beverage of immortality. The result of the operation that chiefly distinguished this Avatara was the obtainment of fourteen articles, usually called fourteen gems, or chaterdesa ratana; in common language chowda ratni. These fourteen jewels are thus enumerated: 1. The Moon, Chandra.—2. Srif or Lakshmi, the goddess of fortune and beauty, —3. Sura, wine, or Suradevi, the goddess of wine.—4. Oochisrava, an eight-headed horse. —5. Kustubha, a jewel of inestimab[illegible] —6. Parijata, a tree that spontaneously [illegible] every thing desired.—7. Surabhi, a co[illegible] larly bountiful.—8. Dhanwantara, a physician. —9. Iravat, the elephant of Indra, with three probosci.—10. Shank, or Sanku, a shell conferring victory on whoever should sound it.—11. Danusha, an unerring bow.—12. Bikh, poison, or drugs.—13. Rhemba, the Apsara, a beautiful and amiable woman.—14. Amrita, the beverage of immortality.

3.—*Varaha, or the Boar.*—In this avatara, Vishnu is generally represented four-handed, armed as usual, and with the head of a boar, on whose tusks rests a crescent, containing in its concavity an epitome of the earth, which had been immerged in the ocean as a punishment for its iniquities. So that this, as well as the two former avatara, seems to be a repetition of the story of the deluge: the second combines with it a portion of astronomical allegory; and none of the other of the ten avatara have any apparent reference to the universal catastrophe, s[illegible]dly indicated by th[illegible]
first, whi[illegible] [illegible]od to have oc[illegible] in dry
the earli[illegible] Hindu histo[illegible]y do not
ch[illegible] [illegible]r fa[illegible]
d[illegible]
fables [illegible] is occasio[illegible]
by [illegible] as well [illegible]
[illegible]pt, at the time
[illegible] In [illegible]tia trees
[illegible] decay in the
[illegible] are very apt to be
[illegible]. It would be much
the co[illegible] [illegible]ll the trees from seed,
inunda[illegible] [illegible]ised from seed is grown
history, [illegible] is stated tha[illegible], whereas a tree gro[illegible]
prince or demon roll[illegible] is always in a stat[illegible]
shapeless mass and [illegible] years from [illegible]
abyss: whither Vis[illegible] usele[illegible] in [illegible]
shape of a hog, kill[illegible] of the [illegible] an
replaced the earth in[illegible]e. Th[illegible] [illegible]icus

and co[illegible]
When [illegible]
dwarf w[illegible]
prostrate [illegible]
it up. From this inci[illegible]
is also called Trivikru[illegible]
is maintained by so[illegible]
gratifying stream, poured [illegible]
[illegible]u in this Avatara [illegible]
which, falling from the [illegible]
[illegible]ded [illegible]

4.—*Nara-Singh*[illegible] lar[illegible] they
this Avatar, Vishnu [illegible] viz. The
monster, to pun[illegible]
Kasipa, a pr[illegible]ng
the brother [illegible] me[illegible]
the third [illegible] successor
throne, who [illegible] to do ho[illegible]
Vishnu. Quarrelling with his son, Pr[illegible]
the king boasted that he himself was [illegible]
the Universe, and asked wherein Vishnu

greater than himself, Pralhaud replied that Vishnu was supreme over all and was everywhere. Is he, cried Hiranya Kasipa, in this pillar? striking it at the same moment with his sceptre, if he be, let him appear. In an instant the magnificent column was rent in twain, and Vishnu in the form of a man with the head of a lion, issued from it and tore Hiranya Kasipa in pieces.

5.—*Vamana, or the Dwarf.*—The four first Avataras are said to have occurred in the earliest, or Sataya, age of the hindus; corresponding in character with the golden or virtuous age of the fabulists of other regions. The fifth happened in the second, or Tirtyayug. Maha Bali, a virtuous monarch, was still so elated by his grandeur, that he omitted essential ceremonies and offerings to the deities; and Vishnu finding it necessary to check the influence of such an example, resolved to mortify and punish the arrogant raja. He therefore condescended to become the son of Kasyapa and Adite, and the younger brother of Indra, and assumed the form of a wretched Brahman dwarf, and appearing before the king, asked a boon, which being promised, he demanded as much land as he could pace in three steps: nor would he desire farther, although urged by Beli to demand something more worthy of him to give. Vishnu, on obtaining the king's promise, required a ratifica-
this ... of it, which is performed by pouring water
or any sti hand of the applicants. As soon as the
the Zend, ... had reached his hand, the form of
with their praye an to expand itself and at length
offering flowers, sug r, coc that it appeared to ex-
Bombay a fair is l earth, in the [illegible] th one stride
day.—*Paris.* another, heaven,
was about to obtain [illegible]

AVA CROTON. nvinced that the pretended
than the god himself, fell

AVADHUTA. before him and yielded
India, a religious a dent of Vamanu, Vishnu
Saiva hindus, who, or three stepper. It
Viragi, has subdued th e Vaishnavas, that the
himself from the inte l on the hand of Vish-
mankind, abandoning re was the river Gunga;
worldly restraints.—*Wi* hand of the miraculous
asi. Vairagi. upon his, now Vish-
[illegible] SAND, co as a mighty river,
[illegible] and of Siva. In M. le
[illegible] au chandes, a rough map or
[illegible] rly alive original, of the
[illegible] hnich is there made to
spindle [illegible] of Vishnu, and falling on
especially of [illegible] in style commonly
through [illegible] cows' mouth. This is the
stance recollected ... f the source of the
being delineated, was proceeding directly
Vishnu.

[illegible]—*Rama or Parasu Rama.*—Among the [illegible]aras of Vishnu are recorded three favoured personages, in whom the deity became incarnate, all named Rama. They are distinguished by the names of Bala Rama, usually called Balaram, Parasu Rama, or Parasram and Rama Chandra, and are all famed, as great warriors, and as youths of perfect beauty. The first named Bala Rama, was elder brother to Krishna, and greatly assisted him in his wars; so that, in this instance, Vishnu seems to have duplicated himself, as indeed may be also said of the other, for Parasu Rama, and Rama Chandra, otherwise called, patronimically, Dasrat Rama, were contemporaries. But it has been made a question, whether they be not three representations of one person, or three different ways of relating the same history: and, whether any, or all of them, mean Rama, the son of Cush. Sir W. Jones (As. Res. vol. ii. p. 132) says he leaves others to determine, He deems Rama to be the same as the Grecian Dionysos, who is said to have conquered India with an army of Satyrs, commanded by Pan; and Rama was also a mighty conqueror, and had an army of large monkeys, or Satyrs, the general or prince of whom was Hanuman, a name said by this author to mean with high cheek-bones: others translate it, with bloated cheeks, alluding to his fabled origin from Pavan, regent of the wind. Rama is also found to resemble the Indian Bacchus; he is a descendant of the sun, and the husband of Sita; and it is very remarkable, that the Peruvians, whose Incas boasted of the same descent, styled their greatest festival Ramasitoa. (See, on this subject As. Res. vol. i. p. 426, vol. iii. p. 68.)

Krishna, [illegible] ing himself to Arjun as the first of all th[illegible]s, hindus "Among those who [illegible] arms, I am [illegible]ma."—*Gita, p.* 86. Of Parasu Ra[illegible] it is related, that he was born near Agra, in the Tirtya yug, or second age. His parents were Jamadagni, whose name appears as one of the Rishis, and Runeka.

7. *Rama Chandra*—In this avatar, Vishnu appears in the person of a courageous and virtuous prince, the son of the powerful sovereign of India (whose capital, *Ayodhya*, is said to have extended over a space of forty miles) to punish a monstrous giant, Ravan, who then reigned over Lanka or the island of Ceylon. The Ramayana contains the heroic description of the battles and life of all three Ramas, although it more particularly details the exploits of Rama Chandra, or Dasrast Rama, so distinguished from his royal father Dasarat'ha. The name of this heroic monarch means, he whose car had borne him to ten regions, that is, to the eight cardinal and intermediate points, the zenith, and nadir. He was a descendant from Surya, or Heli, which is a name of the sun in Greek and Sanskrit; and one of his ancestors, the great Raghu, had conquered

the seven Dwipas, [illegible] whole earth. But we cannot explain, [illegible] yavansa, or descendant of the sun, [illegible] be styled Rama Chandra, the latter patronimic referring contradistinguishingly to the descendant of the moon, Chandravansa. In the hindu mythology, however, every thing seems, directly or indirectly, to merge in, radiate from, or amalgamate with, the Sun, or Sûrya, in one or other of his names, or prototypes. All sects and tribes of Vaishnavas (bating such deistical philosophers as sceptically deny the personal existence of inferior deities, attributes, or avataras,) agree in stating, that, with the exception of Krishna, the potentiality of the preserving power of the deity was never exhibited in such plenitude as in this Avatara of Rama. In popularity, and in dramatic, historic, and poetic shapes, it rivals the Avatara of Krishna. And as the Gocalastha sect adore Krishna as the deity himself, and draw rules for their religious and moral conduct from the Sri Bhagavata, so the sect called Ramanuj, similarly clothe Rama in almighty attributes, and deem the Ramayana a complete body of ethics and morality.

8.—*Krishna*—In this Avatara, Vishnu is said, by his sectaries, to have manifested himself in a degree of power and glory far exceeding any other of his former: in which he assumed only an ansa, or portion of his divinity, while Krishna was Vishnu himself in mortal mould. Other tribes of hindus call Krishna an impious wretch, a merciless tyrant, an incarnate demon, now expiating his crimes in hell: his mortal parents were Vasudeva (meaning the giver of wealth) and [illegible] A miraculous escape of the infa—*Dr. Mason*, Yamuna is represented, conveyed by his faithful and protected by Sesha, or immortality; tiy, guards placed by Kansa over his pregn[illegible] sister having failed in their vigilance, Kansa, enraged, ordered all newly born infants to be slain; but Krishna escaped his various snares: one of which was sending a woman, named Patnia, with a poisoned nipple, to nurse him. He was fostered by an honest herdsman, named Ananda, or Happy. See the article Krishna for his further history.

9.—*Budh or Buddha.* See Buddha.

10.—*Kalki.*—This Avatar has not yet appear. But Vishnu is to appear in this Avatar in the form of a white horse.—*Moor's Pantheon.* See Acasanavi; Avantara, Hindu, India, Inscriptions, 375, 383; Kama, 454, Krishna, Kurma, Rama, Ramisseram, Tripati, Sakti, Varaha, Narasingha, Man-Lion, Vamana.

AVATENGA TIGE. TEL. అవతెంగ తీగె. Dioscorea oppositifolia, L.

AVELAGA. TEL. అవెలగ. Capparis, Sp. like C. divaricata, but the leaves are emarginate.

AVELLAAS. PORT. Hazel-nut.

AVELLANAS. SP. Hazel-nut.

AVELLANE. LAT. Hazel-nut.

AVELINE. IT. Hazel-nut.

AVE-MAVO. TAM. ஆவி-மாவு. Careya arborea.—*Roxb.*

AVENA. LAT. PORT. SP. The oat. Of these, one species A. fatua, Linn, is cultivated in the N. W. of India, and A. Orientalis, Schr. and A. sativa, Linn: are occasionally grown in several parts of the country, but nowhere as in Europe are they in use for the food, either of man or beast. Groats or cuttings and oatmeal are imported to a small extent, the groats being the bruised oat seeds freed of the perigard.—*O'Shaughnessy*, 635. *Voigt.* 732.

AVENUES, lined with trees, are, in tropical countries, of much importance for shade. Portia and Banyan branches selected should be straight, neatly trimmed and of an uniform size, and planted perpendicularly (not obliquely as is generally the case). A neat fence of bamboos will be required to protect them from cattle. *Prickly pear* makes an unsightly fence, and it should never be tied on the branches. The prickly branches of the *Acacia Arabica* (Babul), and others of that family makes good fences, and are cheaper than bamboos. After the branches begin to throw out young shoots they should be carefully pruned, selecting two or three of the strongest near the top as leading sh[illegible] to form the future tree. The young tr[illegible] require water regularly in [illegible] and [illegible] weather, care should be taken th[illegible] do not [illegible] loosened at the roots; this w[illegible] Nyctea [illegible] to one side. To so[illegible] Sub[illegible] away of raising young r[illegible] Ninox[illegible] and natural. The trees [illegible] in their growth, and last doubl[illegible] of those grown from [illegible] [illegible] from large branches always ca[illegible] [illegible] and the branches are [illegible] bl[illegible] off in high winds. It would be much mo[illegible]table to raise all the trees from seed, for, [illegible] raised from seed is grown up, it [illegible] last for ages, whereas a tree gro[illegible] from [illegible] large branch is always in a stat[illegible] decay, after a few years from the time [illegible] planted, and it is usele[illegible] as a timber t[illegible] The natural habits of the Banyan make it an exception to this rule. The whole of [illegible] *Ficus* tribe grows well from large branches [illegible] they are not so apt to decay as other [illegible] The planting of young seedling trees requir[illegible] care and [illegible] than the branches. A [illegible] pit should be [illegible] 3 × 3, and filled with good earth mixed with rotten manure. They will require to be fenced and watered regularly, and the earth should be dug up and kept clear of weeds, to keep it from getting hard and sour. In forming new avenues, the trees should planted 30 feet apart; and when the space will admit of it, a double avenue should be planted; it looks well and forms a shady path for pedestrians. That the young trees may be properly raised after they are planted, a few good head gardeners should be employed, and a certain distance of road allowed to each, say three miles, to look after, until the trees are of a sufficient size to do without water, &c. These gardeners should be able to fill up any vacancies that occurred from deaths or damage and so keep the avenues complete.

Ficus Indica. Banyan tree. Ala-marum, *Tam.* Marri, *Tel.* Bar, But, *Beng.* The banyan is the largest and perhaps the most shady of all the avenue trees.

Ficus religiosa. Poplar leaved fig tree. Arasa marum, *Tam.* Ravi, Ragi, *Tel.* Pipul, *Hind.* Ashwuth, *Beng.* A large and handsome tree, commonly distributed over India. It is frequently to be met with near pagodas, house and other buildings.

Ficus T'siela. Jovi or Pedda Jovi, *Tel.* A large and very handsome tree, it is generally planted by the road sides for the sake of its shade, and from its not sending down roots from the branches is, in so far, superior to either *Ficus Indica* (Banyan tree), or *F. Benjamina*, the pendulous roots of which are ofte dangerous impediments on a road.

Ficus nitida. Chinese Banyan tree. A very handsome tree, native of China.

Gualleria longifolia. Mast tree. Thavathroo, *Tam.* Asoka chetto, *Tel.* A highly ornamental tree, which should be planted in avenues more than it is at present.

Tamarindus Indica. Tamarind tre[illegible] marum, *Tam.* Chinta chettu, *Tel.* [illegible] also Amli, *Hind.* This tree is one [illegible] largest in India, with a very extensiv[illegible] shady head.

Casuarina muricata. Casuarina tree [illegible] Tinian pine. This tree [illegible] very pretty [illegible]ues especially in narrow roads.

Casuarina equisitifolia. A tre[illegible] to the above.

Bignonia suberosa. Indian cork tree. A good tree for planting in avenues. Th[illegible] flowers are pure white and very fragrant.

Parkia biglandulosa. This large and elegant tree [illegible] introduced into India from Africa. It is [illegible] the best trees for avenues. It re[illegible]re and water regularly.

[illegible] *regia.* Royal Poinciana tree. This [illegible]oes not attain a great size, but it is very pretty and should be [illegible]anted in mixed avenues

Adenanthera pavonina. Red-wood tree. A large and handsome tree, and is well suited for planting in avenues.

Azadirachta Indica. Neem tree. Vepa arum, *Tam.* Nim, *Beng.* A good avenue tree.

Sterculia fœtida. Fœtid sterculia, Pinata or Pidari marum, *Tam.* [illegible] Badam chettu, *Tel.* Mugli badam, *Beng.* This is a large, and makes a good avenue, tree.

Bombax Malabaricum. Red-cotton tree. Mull Elava marum *Tam.* Buraga chettu, *Tel.* Ruckta simul, *Hind.* This tree attains a great size.

Thespesia populnea, Portia tree, Pursa, or Puvarasa, *Tam.* Gangaravi, *Tel.* Poresh, *Beng.*

Acacia speciosa. Katuvagi, *Tam.* Dirisana, *Tel.* Sirissa, *Beng.* A large and handsome tree of rapid growth.

The above are the best for planting in avenues, in Madras. But there are many other trees suitable for avenues, when they are merely planted as ornamental trees and not for shade. The Palm trees are also very pretty when planted in avenues. See Thespesia populnea.

AVERAY KAYA. TAM. Lablab vulgaris.

AVERE. CAN. Dolichos spicatus.

AVERI. TAM. அவரி Indigofera tinctoria.—*Linn.*

AVERI. MALEAL. Syn. of Cassia auriculata.

AVERRHOA BILIMBI. WILLDE.

Blimbingun teres *Rumph.*

Blimbi	BENG. CAN. ENG. TAM.	Blimbing basi.	MALAY.
		do bulu	„
Anvulla......	BOMBAY	do bas	„
Cucumber tree	ENG.	[illegible]lin	SINGH.
Kama Ranga....		[illegible]ssee	SUMAT.

A pretty l[illegible], about eight feet high, with timber o[illegible] doubtful value, growing generally in gardens in South Eastern Asia, and [illegible] a beatiful green, smooth, fleshy fruit [illegible]ize of a small cucumber. In Burmah it bears profusely. The unripe fruit is inteneely acid and cannot be eaten raw, but the acidity becomes less as it ripens. Amongst the Malays, it is used like the citron, the gooseberry, the cucumber and the caper in Europe, but can be candied or made into pickles or preserves, a syrup is prepared with the juice and a conserve with the flowers: or preserved in sugar. Its acid juice is useful in removing iron mould.—*Birdwood's Bombay Prod: O'Shaughnessy,* 257 *Ainslie* 222. *Dr. Mason. Mr. Jaffrey, Useful Plants Vegetable Kingdom, Voigt* 191, *Roxb.* 11, 451.

AVERRHOA CARAMBOLA, [illegible]N.

Kama-ranga.	BENG.	Blim-bing manis.	MALAY.
Karmal.	BOMBAY.	Tamara-Tonga.	MALEAL
Zoung yah.	BURM.	Carambola.	PORT.
Mit-ha Kama-ranga	DUK.	Kamaranga.	SANSC.
Coromandel Gooseberry, Tree.	ENG.	Tamartam maram.	TAM.
		Tamarta chettu.	TEL.
Carambola.	„	„ Pandu.	„
Kam-ruk. Hind.	DEKH.	Koto-monga.	TEL.
Karmal.	HIND.		

A. Acid variety, A. acida, Kamaranga.

B. Sweet variety, A. dulcis, Mitha Kamaranga.

This beautiful, but small tree, about 14 feet high, with a spreading head, is supposed to be a native of the Moluccas, from which it has been introduced into Ceylon, India, the Burmese provinces and South America, where it is now quite naturalized. In Burmah, Pegu and the Tenasserim Provinces it is not abundant being often only found near towns, and, in India, in gardens. The tree is said to grow, but, to be scarce, in Ganjam and Gumsur. It there attains an extreme height of 36 feet, but no use is made of the wood, though it attains a circumference of 3½ feet and a height of 9 feet from the ground to the intersection of the nearest branch.

The quality of its dark brown-wood is not known. It bears, and in some places profusely, from three to fifty years and three times a year, a fruit about the size of a hen's egg, with five acute angles and a yellowish, thin, smooth rind. There are two varieties, a sweet and an acid. The fruit of the latter the kama-ranga, when ripe, are cooling, and contain an acid, watery pulp, and are candied, made into pickles or tarts. They make an agreeable dish when cut in pieces and cooked with sugar and wine or with skimmed milk. In Burmah, where the fruit is highly prized as a wholesome dish, it is used like other green fruits, in curries. The juice of the acid variety is useful in removing iron moulds from linen. The acid leaves are a good substitute for sorrel. Rheede tells us that the root, leaves and fruit are used medicinally and the fruit in dyeing. The fruit of the A. dulcis, the Mitha kamaranga, is five cornered, when ripe is rather bigger than a hen's egg, has a sweet pleasant flavour.—*Dr. Mason, Dr. McClelland. Vegetable Kingdom. Useful Plants. Elliot, Ainslie, p.* 233. *O'Shaughnessy*, 257. *Voigt.* 191. *Roxb. ii.* 450.

AVERTUNNIA. Sans. Helicteres isora.

AVES, or Birds, the genera of the birds of India and of the South and East of Asia, with the numbers of described species, are as under :—

ORDER I.—Scansores.

Fam. Psittacidæ.

Sub-Fam Cacatuinæ, 2 gen. 5 spec. viz., 1, Calyptorhyncus, 4 Cacatua.

Sub-Fam. Psittacinæ, Parrots, 3 gen. 13 sp. viz., 1 Coracopsis : 2, Tanygnathus, 10, Palæornis.

Sub-Fam. Platycercinæ, Ground Parakeets, 2 gen. 2 sp. viz.

1. Aprosmictus : 1 Platycercus.

Sub-Fam. Loriinæ, Lories, 4 gen. 1 sub-gen. and 13 sp. viz.

Section i. tongue not filamented.

2 Eclectus, 3 Loriculus.

Section ii. tongue filamented.

3 Lorius, 4 Eos. 1 Trichoglossus.

ORDER II.—Raptores.

Tribe I. Diurnæ.

Fam. Falconidæ.

Sub-Fam. Falconinæ, 2 gen. 2 sub-gen. 15 sp. viz., 5 Falco, 2 Hypotriorchis, 5 Tinnunculus, 3 Hierax.

Sub-Fam. Perninæ, 2 gen. 3 sp. viz., 2 Baza, 1 Pernis.

Sub-Fam. Elaninæ, 1 gen. 1 sp. viz., 1 Elanus.

Sub-Fam. Circætinæ, 2 gen. 3 sp. viz., 1 Circætus, 2 Hæmatornis.

Sub-Fam. Circinæ, 2 gen. 6 sp. viz., 5 [illegible]cus, sp. 1 Poliornis.

Sub-Fam. Accipitrinæ, 3 gen. 6 sp. viz.. 3 Accipitor; 1 Micronisus ; and 2 Astur.

Sub-Fam. Thrasaetinæ, 2 gen. 5 sp. viz., 1 Pseudastur ; 4 Spizaetus.

Sub-Fam. Aquilinæ, 4 gen. 8 sp. viz., 1 Eutolmaetus; 5 Aquilæ; 1 Ictinaetus ; 1 Hieratus.

Sub-Fam. Buteoninæ, 2 gen. 4 sp. viz., 1 Archibutes, 3 Buteo.

Sub-Fam. Haliaetinæ, 6 gen. 7 sp. viz., 1 Pandion ; 2 Pontoaetus ; 1 Blagrus, 1 Haliætus ; 1 Haliastur, 1 Milvus.

Fam. Vulturidæ.

Sub-Fam. Vulturinæ, 2 gen. 2 sp. [illegible] Vultur ; 1 Otogypscalvus.

Sub-Fam. Gypinæ, 1 gen. 3 sp. viz., 3 [illegible]

Sub-Fam. Sarcorhamphinæ, 2 gen. 2 sp[illegible] 1 Sarcorhamphus : 1 Neophron percnopte[illegible]

Sub-Fam. Gypaetinæ, 1 gen. 1 sp. vi[illegible] Gypaetos barbatus.

Tribe II.—Nocturnæ.

FAM. STRIGIDÆ.

Sub-Fam. Buboninæ, 5 gen. 12 sp. viz[illegible] Nyctea ; 4 Bubo : 2 Asio : 2 Scops : 3 Ket[illegible]

Sub-Fam. Atheninæ, 2 gen. 9 sp. [illegible] sp. viz., 1 Ninox scutatus : 8 A[illegible]uradr.

Sub-Fam. Syrniinæ, 1 gen. 3 sp. viz., 3 Syrnium, Indrani, [illegible]inense and nivicolum.

Sub-Fam. Strigi[illegible]næ, 3 gen. 3 sp. viz., 1 Ph[illegible]dilus badius ; [illegible] Glauxflammea, and Javanica.

ORDER III.—[illegible]nsessores :

Sub-Ord. Pica[illegible].

Fam. Bucerotidæ.

Sub-Fam. Bucerotinæ, 1 gen. 19 sp. viz., 19 Buceros.

Sub-Fam. Irrisorinæ, 1 gen. 1 sp. viz., 1 Irrisor Crythrorhynchus.

Fam. Upupidæ, 1 gen. 2 sp. viz., 2 Upepa epops, and senegalensis.

Fam. Halcyonidæ, 5 gen. 23 sp. viz., 2 Dacelo : 8 Halcyon[illegible] Todirhamphus : 2 Ceryle : 9 Alcedo : 2 [illegible]yx.

Fam. Coracidæ, 1 gen. 4 sp. viz., 4 Coracias pileata ; garula, Indica, affinis : 2 Eurystomus, Orientalis, Pacificus.

Fam. Meropidæ, 2 gen. 8 sp. viz., 2 Alcemerops : 6 Merops.

Tribe Zygodactyle, Sub-Div. 1 Climbers.

Fam. Picidæ.

Sub-Fam. Campephilenæ, 6 gen. 16 sp. 1 Campephilus, viz., 2 Hemicercus, 4 Hemilophus : 3 Chrysocolaptes : 2 Brachypterus : 4 [illegible]a.

Sub-Fam. Gecininæ, 4 gen. 19 sp. viz., 12 Gecinus ; 1 Geciuculus : 3 Meiglyptes : 3 Microp[illegible]

Sub-Fam. Picinæ, 2 gen. 15 sp. viz., 1 Dry[illegible] ; 14 Picus.

Sub-Fam. Picumninæ, 2 gen. 3 sp. viz, 1 [illegible]mnus : 2 Sasia.

Sub-Fam. Yuncinæ, 1 gen. 1 sp. viz., 1 Yunx torquilla.

Sub-fam. Indicatorinæ, 1 Gen. 1 sp. viz., 1 Indicator xanthonotus.

Sub-Division II. Perchers, 2 gen. 15 sp. viz.,

FAM. Megalamidæ, 2 gen. 15 sp. viz., 14 Megalaima ; 1 Megalorhynchus.

FAM. Cuculidæ, 10 gen. 36 sp. viz.

Sub-fam. Cuculinæ, 3 gen. 2 sub-gen, 17 sp. viz., 9 Cuculus : 2 Surniculus : 3 Chrysococcyx : 1 Eudynamis, 2 Oxylophus.

Sub-fam. Phœnicophainæ, 4 gen, 1 sub gen. 19 sp. viz., 1 Dasylophus superciliosus, *Cuv*. 3 Phœnicophaus : 5 Zanclostomus : 1 Rhinor[illegible] 4 Tac Cocua ; 5 Centropus.

FAM. Trogonidæ, 1 gen. 6 sp. viz. 6 Trogon.

FAM. Caprimulgidæ.

Sub-fam. Podarginæ, 1 gen. 3 sp. viz. 3 Po[illegible] auritus, Javanensis and affinis.

Sub-fam. Caprimulginæ, 2 gen. 9 sp. viz. [illegible]urostopodus : 7 Caprimulgus.

FAM. Cypselidæ.

Sub-fam. Cypselinæ, 3 gen 11 sp. viz. 3 [illegible]nthylis ; 6 Cypselus, 2 Collocalia.

Sub-fam. Macropterigiinæ, 1 gen. 3 sp. viz. 3 Macrop[illegible], coron[illegible]s, klecho, comatus.

SUB-ORDER. Passe[illegible].

FAM. Corvidæ.

Sub-fam. A. Corvinæ, 1 gen. 7 sp. viz.

A. Crows. 7 Corvus, culminatus ; corone ; cornix, splendens, macrorhynchus, frugilegus

B. Nutcrackers. 1 gen. 1 sp. viz. 1 Nucifraga hemispila.

C. Choughs, 2 gen. 2 sp viz. 1 Pyrrhocerax alpinus : 1 Fregilus graculus.

Sub-fam. Garrulinæ.

A. Magpies, 4 gen. 9 sp. viz. 3 Pica ; 4 Dendracitta ; 1 Crypserina ; 1 Temnorus.

B. Jay-Magpies, 6 gen. 10 sp. viz. 2 Cissa, 3 Psilorhinus, 2 Garrulus ; 1 Perisoreus ; 1 Lophocitta ; 1 Turnagra.

Sub-fam. Garrulacinæ, 5 gen. 27 sp. viz. 20 Garrulax ; 2 Actinodura ; 2 Sibia, 1 Cutia ; 2 Pteruthius.

Sub-fam. Leiothricanæ. 5 gen. 15 sp. viz., 9 Leiothrix, 2 Ixulus ; 2 Yuhina ; 1 Myzornis, 1 Erpornis.

Sub-fam. Parinæ. 8 gen. 20 sp. viz., 1 Conostoma ; 1 Heteromorpha, 3 Suthora : 1 Falcunculus, 10 Parus, 1 Orites ; 1 Sylviparus, 1 Ægithalus flammiceps.

Sub-fam. Paradiseinæ. 2 gen. 4 sp. viz. 3 Paradisea, 1 Cicinnurus regius.

Sub-fam. Graculinæ. 10 gen. 27 sp. viz. 4 Gracula, 1 Ampeliceps. 3 Acridotheres, 4 Sturnus ; 1 Psaroglossa ; 9 Sturnia. 2 Calornis ; 1 Pastoz ; 1 Enodes : 1 Mino.

FAM. Fringillidæ.

Sub-fam. Ploceinæ, 1 gen. 4 sp. viz. 4 Ploceus.

Sub fam. Estreldinæ, 5 gen. 16 sp. viz. 11 Munia ; 1 Erythrina, 2 Amadina ; 2 Estrelda, 1 Scissirostrum.

Sub-fam. Passerinæ, 2 gen. 7 sp. viz. 6 Passer : 2 Petronia.

Sub-fam. Fringillinæ, 14 gen. 20 sp. viz. 1 Montifringilla : 1 Fringilla : 1 Pyrrhospiza, 1 Procarduelis ; 3 Carpodacus ; 1 Hæmotospiza ; 2 Pyrrhula : 1 Propyrrhula ; 2 Loxia, 1 Chrysomitris : 1 Carduelis ; 1 Ligurinus ; 1 Serinus, 3 Coccothraustes.

Sub-fam. Emberizinæ, 2 gen. 10 sp. viz 2 Emberiza, 8 Euspiza.

Sub-fam. Accentorinæ, 1 gen. 4 sp. viz. 4 Accentor.

Sub-fam. Alaudinæ. 4 gen. 1 sub-gen. 14 sp. viz. 3 Alauda, arvensis, gulgula, Malabarica, 2 Calandrella ; 2 Galerida ; 6 Mirafra. 1 Pyrrhulauda.

FAM Motacillidæ. 5 gen. 2 sub gen. 20 sp. viz. 1 Heterura ; 8 Anthus ; 2 Dendronanthus, 1 Nemoricola ; 5 Motacilla ; 3 Budytes.

FAM. Sphenuridæ. 24 gen. 78 sp. viz 1 Sphenura, 1 Megalurus ; 1 Sphenæacus, 2 Dumetia, 9 Malacocercus, 10 Drymoica. 6 Prinia ; 1 Neornis ; 3 Orthotomus : 1 Horietes ; 2 Cisticola ; 1 Pellornium ; 1 Turdirostris ; 10 Pomatorhinus ; 1 Xiphorhamphus ; 1 Turdinus ; 4 Trichostoma ; 2 Malacopteron ; 9 Alcippe, 1 Macronous : 2 Mixornis, 4 Timalia ; 1 Chrysomma ; 4 Stachyris.

FAM. Laniadæ, 6 gen. 23 sp. viz. 1 Gampsorhynchus, 1 Thamnocataphus ; 10 Lanius ; 6 Tephrodornis ; 3 Hemipus ; 2 Xanthopygia.

FAM. Brachyuridæ, 5 gen. 19 sp. viz. 9 Pitta ; 1 Hydrobata ; 2 Troglodytes ; 1 Eupetes, 6 Enicurus.

FAM. Merulidæ 3 gen. 7 sub-gen. 31 sp. viz. 2 Myiophonus : 1 Zoothera ; 5 Preocincla : 5 Turdus : 7 Merula, 5 Geocincla, 4 Petrocincla : 1 monticola : 1 Luscinia.

Sub-fam. Saxicolinæ. 35 gen. 5 sub-gen. 103 sp. viz. 2 Thamnobia ; 1 Kittacincla, 2 Copsychus : 1 Notodela ; 1 Grandala ; 5 Saxicola ; 1 Cyanecula ; 8 Ruticella ; 3 Calliope ; 1 Tarsiger ; 5 Pratincola ; 2 Janthia ; 2 Erythaca ; 3 Erythrosterna ; 4 Siphia ; 1 Antlipes ; 3 Muscicapula ; 5 Cyornis, 1 Ochromela, 3 Niltava, 1 Cyanoptela, 4 Stoparola, 1 Butalis, 4 Hem l cheledon ; 1 Acanthiza ; 1 Sylvania ; 1 Callene ; 4 Brachypterix, 2 Tesia, 3 Pnoepyga, 1 Aruedinax, 2 Acrocephalus ; 1 Locustella ; 1 Pseudoluscinia ; 1 Dumeticola ; 3 Phyllopneuste, 4 Abrornis ; 1 Culicipeta ; 3 Reguloides ; 8 Phylloscopus : 2 Regulus.

Sub-Fam. Sylvianæ, 1 gen. 3 sp. 3 Sylvia.

Fam. Certhiadæ.

Sub-fam. Certhinæ, 1 gen. 3 sp. viz. 3 certhia.

Sub-fam. Sittinæ, 2 gen. 1 sub-gen. 6 sp. viz. 1 Tichodroma ; 4 … ta, 1 Dendrophila.

Fam. Graucalidæ; gen. 5 sp. viz. 1 Graucalus ; 3 CampephXQC 1 Lalage.

Fam. Pericrocotida, 1 gen. 8 sp. viz. 8 Pericrocotus.

Fam. Ampelidæ 1 gen … 1 Cochoa purpurea of Nepaul.

Fam. Pipridæ. Sub-fam … 3 gen. 3 sub-gen. 8 sp. viz. 1 Cory… laimus : 2 Cymbirhyncus 1 Psarisomus … rilophus.

Sub-Fam. Piprinæ. 1 gen. 1 sp. viz. 1 Calyptomena viridis.

Fam. Hirundinidæ, 1 gen. 10 sp. viz. 10 Hirundo

Fam. Artamidæ, 1 gen. 1 sp. viz. 1 Artamus Peshawu…

Fam. Dicruridæ. 1 gen. 5 sub-gen. 14 sp. viz. 1Chibia : 2 Chaptia : 1 Bhanga : 3 Var. Edolius, 9 Dicrurus.

Fam. Tchitreadæ, 6 gen. 12 sp. viz. 3 Tchitrea ; 2 Philentoma ; 1 Rhipidura ; 4 Leucocerca ; 1 Miyagra ; 1 Cryptolophia.

Fam. Pycnonotidæ, 8 gen. 38 sp. viz. 7 Hypsipetes ; 2 Iole ; 2 Hemxos ; 4 Criniger ; 18 Pycnonotus ; 1 Microtorsus ; 2 Brachypodius ; 1 Setornis.

Sub-fam. Phyllorninæ, 3 gen. 12 sp. viz. 7 Phyllornis ; 4 Iora ; 1 Irena puella.

Fam. Meliphagidæ. 2 sub-fam. 4 gen. 14 sp.

Sub-fam. Oriolinæ, 2 gen. 12 sp. viz. 11 Oriolus ; 1 Sphecotheres viridis.

Sub-fam. Meliphaginæ. 2 gen. 2 sp. viz. 1 Entomyza cyanotus ; 1 Z…ops palpebrosus.

Fam. Nectariniidæ, 6 … 36 sp. viz., 8 Ara-
… Necte… Dicæum ; 1 My-
…iprisoma.
…n. 3 sub-gen. 23
… Sphenocercus ;
gen. 21 sp. 2
…mba ; 4 Macro-
…halcophaps.
…sp. viz. 1
1 sp. 1. Megapo-
…m. …æ, 2 gen. 3 sp. viz. Pavo ;
cristatus mu… ; 1 Meleagris : gallopavo.

…cidæ, 16 g…
…us ; 4 Totanus ; 3
1 Terekia ; 2 Limosa, 2 Num…
rhynchus ; 1 Calidris ; 1 Philomac…
1 Phalaropus ; 1 Scolopax ; 1 …
; 6 Gallinago ; 1 Rhynchæa.
Palamedeidæ.
…am. Parrinæ, 2 gen. 2 sp. viz. 1 Meto-
; 1 Hydrophasianus.
. Gruidæ, 1 gen. sub-g… 3 sp. viz. 2
Anthropoides.
…ltirostres.
Ardeadæ.
…am. Tant…

Sub-fam. Polyprectoninæ 5 gen. 10 sp. viz. 3 Ceriornis, 1 Ithaginis, 3 Galloperdix, 2 Polyplectron 1 Argus.

Sub-fam. Phasianinæ, 3 gen. 2 sub-gen. 16 sp. viz. 3 Gallus ; 7 Euplocomus ; 1 Pucrasia ; 3 Phasianus ; 1 Thaumalea ; 1 Lophophorus.

Sub-fam. Tetraoninæ, 2 gen. 2 sp. viz. 1 Tetragallus himalyensis ; 1 Lerva Nivicola…

Sub-fam. Pteroclinæ, 1 gen. 4 sp. … Pteroclis arenarius, fasciatus, alchata, ex…

Sub-fam. Perdicinæ, 8 gen. 22 sp. viz. 1 Numida, 4 Francolinus ; 1 C…is ; 2 Perdix, 1 Rhizothera ; 4 Arbor… Rollulus ; 2 Perdicula ; 4 Coturnix…

Fam. Tinamidæ…

Sub-fam. Tu… 1 gen. 3 sp. viz. 3 Turnix ocellatus … ; Sykesi.

Or… —Cur…

Fam. Casuaridæ… lineatus ; 1 Dromaius …

Fam. Struthionidæ… 1 sp. 1 Struthio camelus.

Order VII.—Grallatores.

Tribe Pressirostres.

Fam. Otidæ, Otis and 3 sub-gen. 4 sp. viz. 1 Houbara ; 1 Eupodotis ; 2 Sypheotides.

b. Incertæ Sedes.

Fam. Glareolidæ, 1 gen. 2 sp. viz. 2 Glareola orientalis, lactea.

Fam. Charadriadæ.

Sub-fam. Cursoriinæ, 2 gen. 2 sp. viz. 1 Cursorius Coromandelicus. 1 Macrotarsius bi…
torquatus. …re,

Sub-fam. Esacinæ, 2 gen. 2 sp. viz. 1 ar of
acus ; 1 Œdicnemus.

Sub-fam. Vanellinæ, 4 gen. 6 sp. viz. [illegible]
lopterus : 1 Sarciophorus … 3 Lobivi
Sub fam. Cha…dri… gen. AAHR. TEL.
10 sp. 1 Squat… Chiradayi or Ai of the
mias, 6 Hiaticula… he Amma or Am-
Fam. Chioni… 1 nsula. This god-
ostralegus. … the non-Aryan tribes.
Fam. Recu… re not zealots, but Co-
mantopus ; 1 Re… r Oodi Sing died thirteen
Fam. Scolon… auguration on the cushion of
dorhynchu thirty-three after the death of Mal-
deo. About A. D. 1645, when he was re-
turning home from court he beheld a girl
silas ; he determined to have ; but she was
mphus ghter of a Brahmin, an '*Aya-punti*,'
Fam. ry of *A… Mata*, whose shrine is at
Sub-ilara. These sectarians of Maroo, he
pidius re very different from the abstinent brah-
Fam Bengal, eat flesh, drink wine, and share
Grus. le common enjoyments of life with the
c. C spirits around them. And, as there was
Fam: course by which the father could save
Sub-f pollution but by her death, on that he
cinellus . He dug a sacrificial pit, and having
Tantalus daughter, cut her into fragments, and
d. Incert… therewith pieces of flesh from his own
1 Gen. D

Sub-fam. Ciconinæ 3 gen. 6 sp. viz., Mycteria; Ciconia; 2 Leptoptilos.

Sub-fam. Ardeinæ, 1 gen. 7 sub. gen, 19 sp 4 Ardea: 6 Herodia, 1 Butorides; 1 Ardeola; 1 Nycticorax; 1 Tigrisoma; 1 Botaurus; 4 Ardetta.

e. Tribe Macrodactylæ.

Fam. Rallidæ, 7 gen. 15 sp. viz. 1 Porphyrio; 1 Gallicrex; 8 Porzana; 1 Ortygometra; 2 Rallus; 1 Gallinula; 1 Fulica.

ORDER VIII.—Natatores.

A. Tribe [redacted] ipennes,

Fam.

Sub-fam gen 5 sp. viz. 1 Catarracta; 4

Sub-fam. Ste *Skimmers*, 1 gen. 1 sp. viz. 1 *Div.* 2 *Marsh* *Ter* 10 sp. idon; 1 Geloche [redacted] Thalasseus; 1 nu; *Div.* 4 *Ocea.* *Terns*, ychoprion; 2 Anous

Fam. Procellari 6 gen. 12 sp. viz. 4 Diomedea; 4 Proeellaria; 1 Prion. 1 Policanoides; 1 Puffinus; 1 Thalassidroma.

B. Tribe. Totipalmati.

Fam. Pelicanidæ, 5 gen. 12 sp. viz. 2 Phæton, 2 Sula, 3 Pelecanus, 4 Graculus, 1 Plotus.

C. Tribe Lamellirostres.

Fam. Anatidæ: Gooses.

Sub-fam. Phænicopterinæ 1 gen. 1 sp. viz. 1 Phænicopterus roseus.

Sub-fam. Anserinæ *Div.* 1 *Swans*, 1 gen. 2 Cygnus, olor, atrata. *Div.* 2 *Geese*, 2 nth 4 sp. 3 Anser, 1 Bernicla, Div. 3, *Perch-geese*, 2 Dendrocygna; 2 Sarcidiornis; 1 3 Macropter, *div.* 4, *Sheidrakes*, 1 Casarca rutila,

SUB-ORDER ulpanser.

FAM. Corvidæ Anatina [redacted] en. 6 sub-gen. 10

Sub-fam. A. Corvi as; 1 Dafila; 1

A. Crows. 7 Cor M Querquerdula.

cornix, splendens, macro 1 sub-gen. 5

B. Nutcrackers. 1 gen

fraga hemispila. 1 sp. viz., 1

C. Choughs, 2 gen. 2 sp. viz. . 2 Podi-rax alpinus: 1 Fregilus graculus.

Sub-fam. Garrulinæ.

A. Magpies, 4 gen. 9 sp. viz. 3 Pica; 4 Dendracitta; 1 Crypserina; 1 Temnorus.

B. Jay-Magpies, 6 gen. 10 sp. viz. 2 C This is 3 Psilorhinus, 2 Garrulus; 1 Perisoreus; 1 Avesta, phocitta; 1 Turnagra. nt date

Sub-fam. Garrulacinæ, 5 gen. 27 sp. adidad, 20 Garrulax; 2 Actino ura; 2 Sibia, 1 Cushtrian. 2 Pteruthius. e been

Sub-fam. Leiothricanæ. 5 gen. 15 sp. uest of 9 Leiothrix, 2 Ixulus; 2 Yuhina; 1 Myzor 1 Erpornis. ence of

Sub-fam. Parinæ. 8 gen. 20 sp. viz., 1, was Bu nostoma; 1 Heteromorpha, 3 Sutho altered to tes,

AVICENNIA TOMENTOSA, LINN.
ROXB. *W. I. c.*
A. resinifera, *Forst.*
A. œpata, *Buck.*, *Herb.*
A. Africana, *Palisot.*
Bontia germinans, *Linn.*
Sceura marina, *Forst.*
Mangium album, *Rumph.*
Oepata, *Rheed.*

Bina	...BENG.	Timmer, ...	...SINDI.
Binahe	„	Nalla mada	... TEL.
White Mangrove.	ENG.	Mada chettu ...	„
Downy leaved Avicennia	„	Pata ...	...MALEAL.
Oepata.	MALE		

A shrub or [redacted] ll tree or tree, grows within the trop he world, and is common in I near the mouths of rivers ide rise. In some places it wn to the height of 70 feet, and li mangrove stands on arching roots. It has small dingy yellow flowers. In the Sunderbuns it is of large size and its wood is used for various purposes. The washermen make a preparation from the wood ashes which is used in washing and cleaning cotton cloths, which painters mix with their colors to adhesive properties. The kernels are edible. The green fruit mixed with butter and boiled, is made into a plaster, which is employed for softening and maturing tumours and to induce granulation in ulcers resulting from small pox. In Rio Janeiro its bark is used for tanning.—*Voigt*, 473. *Roxb* iii 88. *Hog's Veg. Kingdom p.* 587; *Rohde MSS. Flor. Andh. Useful Plants.* See Dyes.

AVICULA See Melegrina, the Pearl oyster also Pearls.

AVIN, a town at the foot of the El-bor mountain. Vigne there measured a plane tree 64feet in circumference See Platanus Orientalis.

AVIRI, అవిరి TEL Indigofera tinctoria, L.

AVISI. అవిశ TEL. Agati grandiflorum, *Desv,*

AVISI (*the seed*) అవిశె. Linum usitatissimum L.—*F. A.* 441.

AVISI KAIA, TEL. Fruit of AVISI KOORA, TEL. Greens of Coronilla grandiflora.

AVISI NOONA. TEL. Linseed Oil. See also Oil.

AVOCADO.—? See Dyes.

AVOINE. FR. Oats.

AVUL COONDUR. DUK. ? Olibanum?

AVURDI also AMLIJ. ARAB. املج Phyllanthus emblica.

AVURU GADDI అవురుగడ్డి TEL. Andropogon, muricatus *Retz.* The root of this grass furnishes the well-known *kaskus*—The stalks are used for thatching.

AVVA GUDA అవ్వగూడ (*V. Abuvva,* (అబువ్వ) TEL. Trichosanthes palmata, *DC.*

AWA. A town in Long. 78° 30′ E. and L. 27° 28′ N.

AWAK. Hindi. Insurance.

AWAL UL ANBIA. The first of the prophets, the designation of Adam by Mahomed. See Adam.

AWASTHI. Hindi. A class of Brahmans of Kanouj.

AWICHI in Singhalese. Buddhism, a hell so called. *Hyder's Eastern Monachism*, *p.* 434.

AWLA or **AUNLA.** انولا | انولی | Duk. Phyllanthus emblica.

AWNY CURRY WOOD. Eng. Odina woodiar.

AWRI KEERAY. ஆரை கீரை. Tam. Marsilea.

AWNING. The Shamianah of the Mahomedans of Persia and India. *Psalm* civ. says Who stretched out the heavens like a curtain, in allusion to the *curtain* or AWNING, stretched over an area, in which companies of hindus sit at weddings, feasts, and religious festivals, and underneath which are suspended dragons, and other devices, giving it the appearance of the spangled heaven.—*Ward's Hindoos.*

AWUR. Hindi. A stockade. Peshawur Peshavur, the frontier fort &c. The Aornos of the Greeks is supposed to be the same word with a Greek termination. Sir Alexander Burnes supposed Aornos to be the rock of Noagi in Bajawur. Mr. Vigne supposes it to be south of Attok in the Yaziri country.

AWUSADANNELLI. Cyng. Emblic Myrobalan.

AW-WAL. Hind? A shark, sometimes applied to Bahrein.

AXE STONE. See Ceraunite, Jade. Nephrite.

AXIMA, a city of ancient Persia. See Fars.

AXIS MACULATA, Gray. The spotted deer of India. There are three species A. maculata, the cheetul or spotted deer of India, A. oryzeus, the spotted deer of Ceylon, and A. porcenus, the hog deer of Indian sportsmen. The Cheetul is often domesticated. See Cervidæ; Cervus; Mammalia.

AY or **AYU** in Tartar, the moon. The Tartars all claim from Ayu the moon, hence with them, as with the German tribes, the moon was always a male deity. Ayu had a son Juldus, whose son was Hyu and from Hya came the first of the kings of China. The Ay of the Tartars, the Yu of the Chinese and the Ayu of the Poorans, according to Colonel Tod, indicate the great Indu (or Lunar) projector of the three Lunar races of India, which Colonel Tod considers to include the Hya, the Aswa or Asi, the Yadu, &c., who peopled all the regions from Tartary to the Indus and spread a common language over all Western Asia.—*Tod's Rajasthan, Vol. i. p.* 71.

He says that the Yuti and Yadu hav much in their early history to warrant the assertion of more than nominal analogy. The annals of the Yadu of Jessulmer state, that long anterior to Vicrama, they held dominion from Guzni to Samarcand: that they established themselves in those regions after the Mahabharata, or great war; and were again impelled, on the rise of Mahomedanism within the Indus. As Yadus of the race of Sham or Sam (a title of Krishna), they would be *Sama-Yadus*; in like manner as the B'hatti tribe are called *Shama-b'hatti*, the Ashambetti of Abul Fazl. The race of *Joude* was existing near the Indus in the emperor Baber's time, who describes them as occupying the mountainous range in the first Doab, the very spot mentioned in the annals of the Yadu as their place of halt, on quitting India, twelve centuries before Christ, and thence called *Jadu* or *Yadu-ka-dang*, the 'hills of *Jadu* or *Yadu*.' The peopling of all these regions, from the Indus to remote Tartary, is attributed to the race of *Ayu* or *Indu*, both words signifying the moon, of which are the *Hya*, *Aswa* (Asi), *Yadu*, &c., who spread a common language over all Western Asia.—*Tod's Rajasthan, Vol. i. p.* 529.

AYAH Anglo-Indian (qu. Iyer, Sans.) A lady's maid. This word is used by the English in India to designate a lady's maid or child's maid. It is possibly derived from the expression Aya or Ayer which a hindu wife or husband employ to attract the attention of one another, equivalent to the English my love, and the hindu Ayer is doubtless the Aryar of the Sanscrit, a noble.

AYA MARUM. Tam. ஆயா மரம் Ulmus integrifolius.

AYAMATA. Sansc. Hind. Mahr. Tel. The universal earth mother, the Ayi or Ai of the Mahratta predial races and the Amma or Ammun of the races of the Peninsula. This goddess is worshipped by all the non-Aryan tribes. As a rule, these tribes are not zealots, but Colonel Tod tells us that Oodi Sing died thirteen years after his inauguration on the cushion of Joda, and thirty-three after the death of Maldeo. About A. D. 1645, when he was returning home from court he beheld a girl whom he determined to have; but she was the daughter of a Brahmin, an '*Aya-punti*,' or votary of *Aya-Mata*, whose shrine is at *Bai-Bhilara*. These sectarians of Maroo, he says, are very different from the abstinent brahmins of Bengal, eat flesh, drink wine, and share in all the common enjoyments of life with the martial spirits around them. And, as there was no other course by which the father could save her from pollution but by her death, on that he resolved. He dug a sacrificial pit, and having slain his daughter, cut her into fragments, and mingling therewith pieces of flesh from his own person, made the 'HOMA,' or burnt sacrifice to Aya Mata, and as the smoke and flames ascended, he pronounced an imprecation on the raja: "Let peace be a stranger to him! and in three pahars, three days, and three years, let me have revenge." Then exclaiming, "My future dwelling is the '*Dabi Baori*' sprung into the flaming pit. The horrid tale was related to the raja, whose imagination was haunted by the shade of the Brahmin; and he expired at the assigned period, a prey to unceasing remorse. —*Tod's Rajasthan, Vol.* II. *pp.* 35-36 See Kol. 537.

AYANA. SANSC. A place of motion. In Menu Ch. l. 10, the waters are called Nara, and as these were the first production of Nala or the spirit of God, he is thence named Narayana.

AYANA OR AYANAR, in peninsular India, south of the river Palar, a hindu deity, worshipped in small fanes with plaster horses and grooms outside of gigantic size. Women desirous of offspring place pottery images near, as votive offerings. Ayana is said to have been born of Mohini by Siva, Mohini being the female form assumed by Vishnu, when churning the milk sea.—*Taylor.*

AYANA-GOSHA, SANS. the husband of Radha, the favourite mistress of Krishna.—*Ward's Hindus.*

AYANA, in hindu astronomy, a term applied to the equinoctial, and solstitial points.—Mesha Ayana, Tula Ayana; the vernal and autumnal equinoxes.—Uttara, and Dacshina Ayana; the Northern and Southern solstices. —Ayana Bhagas, (vide Ayanansa).—Ayana Cala; the time from one equinox to the ensuing one.—*Ed. Warren's Kal. Sank.*

AYANANSA, in hindu astronomy, the arc between the vernal eqinoctial point, (and the beginning of the solar sydereal (or fixed zodiac or the first point in the solar sign Meshar), being one of the most important elements of Hindu astronomy, as it refets the sydereal, to the tropical zodiac.—*Ed. Warren.* See Cranti. Pata. Gati. Rishis; Varaha; Mihira.

AYAPANA. BENG. Eupatorium ayapana; E: repandum. The dried leaves and twigs used in medicine. An infusion, is a very agreeable diaphoretic and mild tonic. Dose, two fluid ounces thrice daily, is a favorite remedy among the native practitioners.—*O'Shaughnessy. Beng. Phar. page* 298. *Beng. Dispensary.*

AYAR, HINDI. Andromeda ovalifolia.

AYAR-AYAR, MALAY, a species of Lansium. See Duku.

AYASRA. AMBOIN. Sandal Wood.

Ayeen. See Khiraj.

AYENI. MAL. Artocarpus hirsutus.

AYEN PANAS. Hot springs in Naning. See Ganong.

AYER, in the south of India, an honorific or respectful word applied to superiors, It is often applied to Europeans of rank. It is the Ariar, from Aria See Aria, Aya.

AYER BARU, a place in Malacca occupied by the Jakun. See Jakun.

AYER DURIN, a tin mine in Banka. See Tin.

AYER-MADDOO. MAL. Honey.

AYER-MANGKOK BULU. See Tin.

AYER-I-NOSH, a place in Persia with Naphtha springs.

AYER PANAS, AYER TROSS. See Jakun.

AYER UDANG. See Tin.

AYIN AKBARI. See Ain-i-Akbari: *Inscriptions, p.* 385.

AYLMAS, a race in Khammumet and Warungal, well made, tall and rather goodlooking. They are gallant soldiers and dangerous enemies.

AYMAUDUM. CAN. Bishop's Weed.

AYODHYA, (*i. e.* the Invincible), the modern Oude. This city is celebrated in all hindu poetry as the ancient capital of Ramachandra, founded by Ikshwaku, the first king of the solar dynasty. Like other capitals, its importance must have risen by slow degrees; yet, making every allowance for exaggeration, it must have attained great splendour long anterior to Rama. It was for many years the sovereignty of the princes of the Solar line. The remains of the ancient city are still to be seen at the town of Oude, situated in the banks of the Ghogra, seventy-nine miles from Lucknow and adjoining Fyzabad. Overgrown greatness characterized all the ancient Asiatic capitals, and that of Ayodia was immense. Lucknow, the present capital, is traditionally asserted to have been one of the suburbs of ancient Oude, and so named by Rama, in compliment to his brother Lacshman. In the Râmâyâna (Book i. Chap. v.) it is thus described: On the banks of the Sarayú is a large country called Kosala, gay and happy, abounding with cattle, corn, and wealth. In that country was a famous city called Ayodhya, built formerly by Manu, the lord of men. A great city, twelve yojanas in extent, the houses at which stood in triple and long-extended rows. It was rich, and perpetually adorned with new improvements. The streets were well disposed and well watered. It was filled with merchants of various descriptions, and adorned with abundance of jewels; crowded with houses, beautified with gardens and groves of mango-trees, surrounded by a deep and impregnable moat, and completely furnished with arms! In the Sakuntala (Act vi.) Ayodhya is called Saketala. The country of which AYODIA (now Oude) was the capital, and Rama, monarch, is termed, in the geographical writings of the Hindus, KOSHULA; doubtless from the mother of Rama, whose name was *Koshulya.* The first royal emigrant from the north is styled, in the Rana's archives, *Koshula-pootra*, son of Koshula.—*Tod's Rajasthan, Vol. i. p.* 215. *William's Story of Nala, p.* 114. See Hindu; Kush; Sakya Muni; Sallyavansa; Topes; Vishnu.

AYUL. For nine or ten months a disease, denominated by the natives the "*Ayul*," renders the Terai dangerous to man, so deadly are its effects even to the natives of the country. *Oliphant. Journey. p.* 39.

AYUN MUSA, AR., the wells of Moses, are eight miles down the RED SEA from Suez on the eastern shore. The Ain (Ayun plural) is a natural spring, and differs from the Ber or Bir, *Arab*, a cistern to hold rain water Jacob's well, Beer Yakoob, or Bir us Samariah is 9 feet broad and more than 70 feet deep. In 1855 it still had the stone over its mouth (*John iv.*)

AYUSH, the Veda descriptive of the art of music. See Vidya.

AYUTHIA, the old capital of Siam. Ayuthia was founded A. D. 1351, and was devastated by the Burmese in 1751, when Bangkok became the royal residence. The native name of Ayuthia was Sijon Thejan, meaning "Terrestrial Paradise." *Bowring's Siam.* Vol. I. *p.* 21. See Siam.

AZADIRACHTA INDICA, Ad. Juss. W. & A.

Melia azadirachta, *Linn.*

Nim	BENG.	Nim	HIND. MAHR.
Bewa	CAN.	Weppa	MALEAL.
Thembau-ka-makah.		Aria Bepou	MALEAL.
	BURM.	Nimba	SANS.
Ka ma a pæ.		Vepam maram	TAM.
Margosa tree	ENG	Vepa	TEL.
Ash leaved bead tree		Nimba	„
Indian Lilac		Yepa Chettu	„
Blue Nim tree		Nimbamu.	

This beautiful tree is found in Ceylon, throughout India and Burmah, and in some localities attains a large size. It is to be seen every where, though more seldom as a forest tree than in waste places and in the villages of the people and gardens of Europeans, where it is grown for ornament and shade. In the South of India, it is in considerable abundance in most parts of the inland country, and in Pegu province, is plentiful in the Prome district only. The quality of its timber varies in these localities. Throughout the peninsula of India, it yields a compact, hard, heavy, durable wood, when old—difficult to work but, beautifully mottled and deserving attention for ornamental purposes. It is well fitted for ship building and carts. Some samples exhibited by Mr. Rohde, at the Madras Exhibition, equalled the best fancy woods, and some of the finest furniture he had seen, was from an old margosa tree. It is used in Coimbatore for cart wheels, and in bare districts of the Bombay Presidency, it is of great importance for building and agricultural purposes. In the Prome district of Pegue it is described at a large but yielding a soft timber only fis for flooring. Some beautiful specimens are of a light reddish brown colour. It would be of importance to increase this tree, throughout the country. It reaches a large size even in stony ground. It comes into full foliage in the very midst of the hot weather. Every part of the tree is bitter, and its leaves, bark, seeds and the oil from its seeds (bitter oil) are largely used in native medicine. The bark has been recommended in fevers, but is only a bitter tonic. It is venerated by the hindu people, who, regarding the small pox as a goddess, employ the leaves in that disease, and, like the shrew ash tree, in England, it is often resorted to by the friends of the insane, who pass the sick person through a cleft of the tree, or through a stem which, having parted and re-united, forms a circular opening. —*Roxb. ii.* 394. *Voigt,* 138. *Dr. Wight. Mr. Rohde. Dr. Cornish. Dr. Gibson. Elliot. Cat. Ex.* 1862. *Royle Ill. Him. Bot. p.* 140, 141. *Clegh. Panj. Report.* See Avenues.

AZAN, ARAB. The Mahomedan summons to prayer, proclaimed by the Moazzan: the words used, some of which are repeated, mean God is Great, I bear witness there is no other deity but God, and I bear witness that Mahomed is indeed the prophet of God. Come enliven your prayers. Come for refuge to the asylum. God is great. There is no god but the true God.—It is differently pronounced, though similarly worded by every orthodox mahomedan nation. The Moazzan, with his face to Mecca, for the five daily prayers, says,

1. Allah ho akbar (4 times).—God is great.

2. Ash-had-do-an, la-illaha il-lul-la ho (twice) —I bear witness there is no deity but God.

3. Wa ash-had-do-an, Mahomed-ur-rasul ool lahi (twice)—And I bear witness that Mahomed is the prophet of God.

4. Hy ul as-salwat (twice)—Come enliven your prayers.

5. Hy al ul Fallah (twice)—Come for refuge to the asylum.

6. Us-sal-la-to khyrun min nun-nowm (twice in the morning prayer)—Prayer is better than sleep.

7. Allah-ho akbar (once)—God is great.

The Azan is proclaimed from the mosque by the Moazzan. When Mahomed was at Medina the means of calling his followers together for prayer, were discussed. Flags were rejected because they had been defiled by war, bells were rejected because used by Christians; trumpets have long been used by Jews and fire was an object of idolatry to the Persians, but a revelation to Abdullah ibn-Zeid Abderzi prescribed the human voice. The Moazzan is required to speak evenly and distinctly, slowly and gravely. Briefly the words are:—

Most high God, Most high God, Most high God,
I acknowledge that there is no other than God.
Come to Prayer, Come to Prayer, Come to the house of salvation.
Great God, Great God, Great God. There is no deity but God.

But in the morning call, the Moazzan adds, Prayer is better than sleep. The Moazzan stands with a finger in each ear and with his face towards Mecca, till he comes to the words, Come to prayer, come to the temple of salvation. He then turns his face right and left as if addresing all nations of the world.

AZAS, a Bactrian King who B. C. 110, succeeded to the kingdom of Nysa, Gandharitis, and Peukelaotis.

AZEITONUS. Port. Olives.

AZERBAIJAN, a province of Iran. See India. Tabriz.

AZEEM, also AZIM, Ar. Pers. Hind. from the Arabic verbal root, "he was great" often applied by Mahomedans in India as part of a personal name and given as part of a name to towns, as Azeem-ud Dowlah Bahadur, Azimghur. See Azim.

AZERMI DUKHT, a Sassanian king of Persia, A.D. 631,

AZES, B. C. 130. One of the conquering Scythian kings, on whose coins are bilingual inscriptions, with plain, distinct Greek characters, in Arian, Maharajasa Raja Rajasa Mahatasa Ayasa. The figures on the coins are various. Professor Wilson thinks he was an Indian buddhist King about 50 B. C. Professor Lassen regards him as a Sacian Scythian, who conquered the Kabul valley in the time of the second Mithradates, and finally destroyed the kingdom of Menander and Hermæus in about 120 B.C. He considers he was succeeded by Azilises.

Azilises, B. C. 115, reigned with the same titles as Azes. On one coin, the name of Azes is on the Greek obverse and that of Azilises, on the Bactrian reverse.

AZILAS, a Bactrian King B. C. 80. He succeeded Azes and added Taxila and Paropamesadæ. See Azes.

AZIM. Arab. great. The word is part of the Arabic verb, Azm, he was great, and parts of this verb are frequently met with wherever mahomedans are spread, in the names of towns, of individuals and in titles, such as Azim-ghur: Azim-pur; Azim Jah; Mahomed Moazzam; Moazzam-ud-Dowlah, literally the Honoured of the State. See Azeem. Azim-us-Shan, Ar. Splendid.

AZIMGUR, a town in L 83° 11′ E. and L. 26° 5′ N. in the Benares division of the N. W. Provinces of India.

AZIMGUNGE, a town in L. 88° 49′ E. and L. 24° 7′ N.

AZIMKHAN, a town in L. 69° 44′ E. and L. 34° 23′ N.

AZIMNAGUR, a town in L. 88° 21 E. and L. 22° 22′ N.

AZIMPOOR, two towns so named. One in L. 78° 9′ E. and L. 29° 9′ N., the other in L. 83° 12′ E. and L. 26° 5′ N.

AZKHAR, Hind. Andropogon Iwarancusa. See Izkhar.

AZME.	Guz.	Ajwain Seed.
AZOGUE.	Sp.	Mercury.
AZOFAR.	Sp.	Brass.
AZUCAR.	Sp.	Sugar.
AZUFRE.	Sp.	Sulphur.
AZUL DE PRUSSIA.	Sp.	Prussian Blue.
AZUMBAR.	Sp.	Storax.

AZURE STONE or lapis lazuli is said to be found massive with iron pyrites, amongst the Ajmeer hills, especially the Na-puhar range: this stone is sold by all "attars" both as a medicine and as a pigment: though found in the district, it is also imported into Ajmeer from Bombay: the native name, in Ajmeer, is "lajburd."—*Gen. Med. Top. p.* 162. See Lapis Lazuli.

AZURRO PRUSSIANO. It. Prussian Blue.

AZYN. Dut. Vinegar.

B.

B. This consonant has letters with corresponding sounds in Arabic, Persian, Urdu, Sanskrit, Hindi, Mahrathi, Guzerati, Bengali, Urya, Telugu, Karnata, Tamil and Malayalam; and in all but the Tamil tongue, the English Bh is also represented.

BA. Pers. With, possessing; thus, ba-auläd, with offspring.

BAAGUN, a river of Tonk Rampura.

BAAL, in ancient times, the chief deity of the Semitic races: but worshipped, in different localities, under various names, with various attributes and different significations. Baal, otherwise Bel, or Moloch, was the chief deity of several of the ancient nations of western Asia and of Egypt, and became an object of worship also to the Jews, and certain of the rites and ceremonies sacred to this deity were imitated by the Greeks. The western nations, however, seem to have varied the modes of worship. Baal was the great deity of Tyre. Baal or Belus was sometimes made to represent the male principle in creation, sometimes the sun and sometimes only the chief of the gods without special reference to any physical element or function. The Greeks sometimes identified Baal with Zeus, as they did Ashtoreth or Astarte with Venus. Baal and Ashtoreth, the two chief divinities of Phœnicia, were the sun and moon. Their worship was that of the heavenly bodies. Bel or Baal was also identified with the planet Saturn. Mr. Layard is doubtful as to whether Baal of the Assyrians was identical with Bel, but there seems little doubt that by the names Baal, Bel, Belus, Belenus, in Celtic, Beal, Beil, Beul, Abellion, the same deity was included, though his appropriate worship varied. See 2d Chron. xiv. 5; 2 Kings xxiii. 1-11; Jer. viii. 1-2. Baal Pl. Baalim was the supreme male divinity of the Phœnician and Canaanitish nations and Baal in Hebrew means lord, owner, master, possessor; Bel is the Babylonian name of the god, but Rawlinson doubts the identity of Baal and Bel. Amongst the Jews his worship was conducted by burning incense and offering burnt sacrifices, sometimes of human beings. Jer. vii. 9 and xix. 5. Crenzer and Movers consider Baal to be the sun god: on the other hand the Babylonian god is identified by Herodotus with Zeus and Bel. Merodach is Jupiter. Melkarth of the Phœnicians was probably only another form of Baal. In his temple at Gades, his symbol was an ever burning fire. Whatever may have been the origin of the word, the nations, lly, seem to have deemed the sun to be ototype of this deity. In western Asia, sun-worship has long ceased, but it continues to a certain extent, in India. The same division of the powers of nature into active and passive principles, symbolized by male and female deities, which appears in the hindu theology, characterized also the Egyptian and Phœnician. In the Phœnician these were more distinctly connected with the heavenly bodies—in the Egyptian less so, and, in modern hinduism, still less. Osiris was no doubt identified with the sun and Isis with the moon, though doubts exist as to whether these were their primary characters, and Kneph, Ptah and Amun, the oldest of the Egyptian gods, had no astronomical characters. But Baal and Ashtoreth, the two chief divinities of Phœnicia, were unquestionably the sun and moon, and the minor deities appear either to have been the same heavenly bodies or at least to have represented objects of astral worship. Baal was *Baal-semen*, lord of the heavens or sun. Baalbek was dedicated to the sun and called by the Greeks Heliopolis. Bel, the chief god of the Babylonians, was also the sun. Bal, Bel, Belus, the sun or lord of the heavens almost assimilates in character and attributes with Cronos, Ouranos, Moloch. But, in time, Baal began to be regarded as the supreme lord and the sun, in its physical character (2 Kings xxiii. 5) was worshipped separately, as was Ra, of the Egyptians from Osiris and Helios of the Greeks from Phœbus and Apollo. In the sidereal theology, Bel or Baal was the planet Saturn. Many nations have adored the sun: the Jews and the Israelites paid homage to it. The sect of the *Essenians*, among the Hebrews, every day saluted the rising sun, and invoked him in the morning to appear. God expressly forbids this idolatry; and commanded those, who were found guilty of adoring the sun and the moon, to be stoned. Deut. xvii. v. 3. In the book of Kings, c. ii. this idolatry is related as the principal cause of the ruin of the kingdom of the Jews, which was ravaged by enemies, whom God had raised to execute his vengeance. Plutarch endeavoured to destroy this worship among the Greeks; he says, in his book of Isis and Osiris, that the elements are not to be adored, neither the sun nor the moon, because they are only mirrors in which may be seen some trace of the infinite wisdom of the Creator, who has made them so brilliant and beautiful. The brahmins of India today address prayers to the sun every mo in making the Sandivani. Many and interpretations are given of th the celebrated Gaitri Mantram, Veda used when initiating a young, founders of the order, but that it is addressed to the sun under the name of Savitri, there is no doub and much of the hindu worship has an astromical origin. Every day, too, the whol Parsi race worship this luminary.—*Bunse Egypt, Vol. IV.* 350-352. *Sonnerat's Voyage, p.* 76-77. See Astarte, Basava, Bull. Gaetri. Veda.

BAAL-PHEGOR, the god of licentiousness.

BAAL-ZEBUB, the god of flies.

BAALUT. Arab. An acorn. See Oak Quercus.

BAALBEC, called in scripture Baaleth, the Heliopolis of the Greeks and Romans. But, in oriental countries it is still known as Baalbek. In the labour catches of the mahomedans of India, along with Ya Ali, Ya Mahomed, Ya Rasul Allah, the call, Ya Baalbec, is often heard. It is now in ruins, S. E. of Jerusalem.

BAALTIDE, or Midsummer fires are held in Ireland, when, as in Deut. xviii. 10, children and cattle are passed between the fires to do away with the influence of evil spirits.—*Vigne Vol. II. V.* 45.

BAALTIS, *i. e.* Mistress, Queen, the wife of the Egyptian Adonis. As the wife of Adoni, Baaltis is identical with the Greek Hasoreth, Astarte. See Astarta.

BAATOO. Black trepang. See Holothuriadæ.

BAB. Ar, a door. Bab ul maqadas, the royal presence.

BABA, Hind., child: baba-log, plural, children.

BABA, a term applied to the descendants of Oody Sing, the raja of Mewar. He lived for four years after the loss of Cheetore, and expired at Gegoonda, aged forty-two. He left a numerous issue of twenty-five legitimate sons, whose descendants, all styled Ranawut, pushed aside the more ancient stock, and form that extensive clan distinctively termed the *Baba*, or 'infants' of Mewar, whether Ranawut, Poorawut, or Kanawut. His last act was to entail with a barren sceptre contention upon his children; by setting aside the laws of primogeniture and proclaiming his favourite son Jugmal his successor.—*Tod's Rajasthan, Vol. I. p.* 329.

BABA or BABBER, 60 miles W. of Timor, is in Lat. 8° 2' S. The people scarp the hills and dwell on terraces in oblong, barnshaped houses, with wooden walls and palm leaf thatch. —*Horsburgh.* See Java.

BABABOODEN, a range of hills in the Nagar district in the N. W. part of Mysore, attaining a height of 5,000 to 6,000 feet above e sea. The hill sides have been found to tea and coffee well. Fevers of a severe ve occasionally occurred. See Tea.

GOORGOOR, near Kerkook is supe the Korkura of Ptolemy, and is es to the north of Baghdad. In a little circular plain, white with naphta, flames of fire issue from many places.—See Kerkook.

BABAGUNGE, a town in L. 91°45′ E. and Lat. 24° 38' N.

BABAI. *Ocymum pilosum.* Ciliated basil. This is very common in all the Ajmere fields: the leaves have a very fragrant smell, exactly like verbena: the plant is used to prevent the approach of insects, especially of bugs: the seeds are mucilaginous.—*Irvine, Gen. Med. Top. of Ajmere, p.* 180.

BABA-LALI, disciples of one Baba Lal, who was a Malwa Khetryia, born about the reign of Jehangir. He, again, was a disciple of Chetana Swami, he settled at Dehanpur near Sirhind, where he erected a *Math*.

BAB ALLAH, the "gate of God," one of he gates of Damascus, so called from being that hrough which the Haj or pilgrim caravan passes n starting for Mekka.—*Robinson's Travels, Vol. II. p.* 126.

BAB-AL-MAKADDAS, Arab. Turk. The ublime door or porte, the respectful mode of designating the emperor of Turkey. See Bab.

BABAR, or Allow or Bichoo, a stinging ettle described by Mr. Charles Gubbins. Th s prepared from its fibres. It grows in e alleys about Simla and Subhathoo.—*Royle, page* 376.

BAB-AR. A thatch grass, also converted nto twine.

BABARCHI, also BAWARCHI. Hind. cook.

BABAT. Pers. An item in an account.

BABA YADGAR, one of the seven persons, Haft Tan, who, in the early days of mahomedanism were worshipped as the deity in several parts of Kurdistan. His tomb is in the pass of Zardah, and is the holy place of the Ali-Allahi sectarians, who believe in upwards of a thousand incarnations of the godhead. At the time of the Arab invasion of Persia, the Zardah pass was regarded as the abode of Elias. See Ali Allahi; Karund.

BABBASA. Tel. Hydrocotyle rotundifolia, *R ii.* 88.—*Ic.* 564. See Hydrocotyle.

BABCHI. Hind. Psoralea corylifolia.

BABDEE, a town in L. 67° 45' E. and L. 24° 49' N.

BABEE, a clan of the Afghan races. See Kelat.

BABEGAN, the surname of Ardeshir. See Artaxerxes.

BABEL of Scripture is the Babiru of the cuneiform characters and the Beber of the Egyptians. Its age is uncertain, but according to Genesis, it is older than Assur and Nineveh. According to Genesis xi. the tower was a watch tower, a fortified observatory or rallying place, in the midst of a great plain, and there can be no doubt that there was a tower of Nimrod in the early times before the Chaldee period. This tower is connected with the decline of the kingdom of Nimrod and the dispersion of nations, —*Bunsen's Egypt*, iii. 132, 451; iv. 373, 414. 415. See Babylon. Kesra.

BAB-EL-MANDEB. On the north-eastern side of the entrance to the Red Sea, is a prominent head land with low land behind it, giving it the appearance of an island. Quoin Hill, Jibl Mia Ally is 865 feet high and slopes towards the sea. This Cape has numerous projecting rocky points forming small bays, which afford shelter to small vessels that bring sheep from the opposite coast for the Mocha market. Bab-el-Mandeb is an Arabic term, meaning the gate of affliction, supposed with reference to the dangers which were anciently encountered in its navigation. It is a Strait, forming the entrance of the Red Sea, and is the limit of the Turkish possessions to the south. It is fourteen miles broad with the island of Perim lying in it near to the Arabian shore. Sesostris is said to have sailed through it.—*Horsburgh, Playfair.* See Beer us Somal; Okalis; Perim; Somal; Suhaili.

BABEER, in Syria, the papyrus reed. P. antiquorum. It grows in the marshes of Egypt and in the stagnant waters of the Nile.—*Hog. Veg. King. p.* 806.

BABER, Emperor of India, an adventurous, hardy soldier, and pursuing literature in the intervals of his war-spent life. He was born in 1480. He was the son of Shaikh Mirza, the chief of Farghana, and was the sixth in descent from Timur. While yet a lad, at the age of fifteen, he succeeded to his father's principality of Farghana, and after various changes, he became the founder of the Moghul dynasty, which, up to the beginning of the 19th century, held imperial sway in *India.* He reigned over a kingdom composed generally of the provinces situated between the Ganges and Samarcand. His ancestral dominions were on both sides the Jaxartes, a portion of ancient Sakatai, or Saca-dwipa (Scythia), where dwelt Tomyris, the Getic queen, immortalized by Herodotus and where her opponent erected Cyropolis, as did in after-times, Alexander the Macedonian, his most remote Alexandria. From this region the same Gete, Jit, or Yuti, issued to the destruction of Bactria, two centuries before the Christian era, and again in the sixth century to found a kingdom in Northern India. One thousand years later, Baber issued with his bands to the subjugation of India, which his descendants retained up to the end of the 18th century. This portion of Central Asia is the "*officina gentium,*" whence issued those hordes of Asi, Jits, or Yeuts (of whom the Angles were a branch), who peopled the shores of the Baltic, and the precursors of those Goths who, under Attila and Alaric, altered the condition of Europe. Baber quitted Samarcand as a fugitive, and with less than two thousand adherents commenced his enterprize, which gave him the throne of the Pandu.

In A. D. 1494, at the tender age of fifteen he succeeded to a kingdom; ere he was sixteen, he defeated several confederacies and conquered Samarcand, and in two short years again lost and regained it. His life was a tissue of successes and reverses; at one moment hailed lord of the chief kingdoms of Transoxiana; at another flying, unattended, or putting all to hazard in desperate single combats, in one of which he slew five champions of his enemies. Driven at length from Farghana, in despair he crossed the Hindu Coosh, and in 1519 the Indus. Between the Punjab and Cabul he lingered seven years, ere he advanced to measure his sword with Ibrahim of Dehli. Fortune returned to his standard; Ibrahim was slain, his army routed and dispersed, and Dehli and Agra opened their gates to the fugitive king of Farghana. His reflections on success evince it was his due: "not to me, oh God! but to Thee be the victory!" says the chivalrous Baber. A year had elapsed in possession of Dehli, ere he ventured against the most powerful of his antagonists, Rana Sanga of Cheetore. His checquered life may be thus described; but during a long succession of victories and reverses, he retained a cheerful equanimity of mind. His first conquest was Samarcand, but he had held it only for a hundred days when he was recalled to the defence of his own territory. He next, in 1504, captured Cabul which he held for 20 years. In 1519, he invaded India; in 1524, he overran the Panjab, and advanced as far as Sirhind, but he and his brother Ala-ud-Din were forced to relinquish these conquests. In 1526, however, Baber's fifth and last expedition was against India. He had an army of 12,000 men with which he encountered and defeated the Emperor Ibrahim Lodi at Paneeput, and he soon after reduced to his power all the provinces of the empire. He, however, sustained a great defeat at Futtehpore Sikri at the hands of the Rajput Rana Singha, chief of Chittore, but in 1527, Baber led his army a second time against the Rajput prince whom he overthrew and completely broke his power. After other successes, he died at Agra in 1530 at the age of 50. He was fond of literature, and himself a scholar. Were we to contrast the literary acquirements of the Chagitai princes with those of their contemporaries of Europe, the balance of lore would be found on the side of the Asiatics, even though Elizabeth and Henry IV of France were in the scale. Amongst the princes from the Jaxartes are historians, poets, astronomers, founders of systems of government and religion, warriors, and great captains, who claim our respect and admiration.—*Tod's Rajasthan, Vol. I. p.* 322.

BABI, an Affghan tribe, settled at Kelat for purposes of traffic. The appearance of the Babi merchants is rather prepossessing ; stout, well-made men, with good features.—*Pottinger's Travels, Beloochistan and Sinde, p* 46 See Kelat.

BABI. Malay. Hog.

BABIER. Syriac. Cyperus papyrus—See Babeer.

BABINGTON, Dr. Benjamin. A Madras Medical Officer ; he wrote on the Geology of the country betwixt Tellicherry and Madras. Lond. Geol. Trans. 1810 ; As. Joun. 1819. Vol. vii. 646 ; see Memoir of Lon. Geol. Trans., Vol. v. 23, 29.—*Dr. Buist's Catalogue.*

BABI-RUNG. Beng. Embelia ribes. *Burm.*

BABIRUSSA ALFURUS. One of the Suidæ, the Babirussa hog of the islands of the archipelago.

BABISARN. Malay. Morus Indica.

BABLAH. Neb-Neb. The rind of the fruit of the Acacia ferruginea. It is used as a substitute for the more expensive dye stuffs, and for communicating shades of drab to cotton. —*Faulkner.*

BABO. See Yavana.

BABOCALLY, a town in India in Long. 90° 50′ E. and Lat. 24° 40′ N.

BABOO. Amongst the hindus, a respectful appellation equivalent to the English "Esquire;" your worship or "your reverence" or to the mahomedan hazrat : It is still not unfrequently applied to Englishmen when addressed by a hindu." In Calcutta, a hindu engaged in mercantile business, a native clerk who writes English. In Goruckpore any man of family or influence, in Benares, the near relatives of Rajahs.

BABOOL. A Hindi word, applied, as a generic term, to some species of Acacia ; but, the Babul proper, is the A. Arabica (which see). In Sind, the Babool is very abundant and grows to a very large size. It is exceedingly hard and weighty. For agricultural implements and all native purposes, it is excellent. It was much used by the Indus Flotilla, for paddle flats, rudders, stanchions and boats' knees—in fact for every purpose to which good wood can be applied. Besides other parts, its bark is employed in tanning, its pods form a valuable food for cattle, its young branches are the favourite food of camels and goats, its bark yields gum and lac, and for all these articles, wood, bark, ls and lac, a sale is always found. Drs. on and Cleghorn have strongly advocated the extension of this tree by plantations. Dr. Cleghorn (Report, p. 7) suggested that the Acacia Arabica tree should be conserved along the banks of the Tumbuddra, both in the Bellary district, and in the Nugger division of Mysore. The Babool springs up in the alluvial soil on both banks (in similar ground to the Shikargahs of Sinde), and, he adds, if three trees be planted when one is cut, there will be an increased supply of useful material in a few years. Dr. Gibson, for years strove to form such preserves. He says (Report of 1857-60, p. 14) the several proposed Babul reserves in this eastern line should be kept in view, otherwise the want of tree reserves in a bare country may hereafter be felt. He tells (Report p. 18 and 19) of Babool preserves on the Bheema and Moota Moola rivers, and adds that, the net profit of all these Babool preserves for the year, after deducting every expense, including Rs. 432 per annum for keepers, reached the figure of Rupees 1,068-9-8, being the best return yet had since the commencement of conservative measures in 1846. He mentions that there are Babool preserves on the Bheema river, in the Ahmednuggur Collectorate, and that the supply of wood from these Babool forests continues to increase, not only as regards firewood, but also in respect to large wood for the Gun Carriage Manufactory and to meet the increasing demand, every opportunity had been taken for extending the preserves. He informs us that the large Babool wood which used to be obtained from Kutch and Kattywar seems now to be not procurable, but adds that the roadside Babools especially in the Sattarah Districts, will soon afford a large supply of Gun Carriage timber.

BABOON. A quadrumanous or four handed mammal, of the sub-family Papioninæ. It has received its Latin name, Cynocephalus ; from the dog-like shape of its head. The baboon is found in several parts of the South of Asia.

BABOONAH. Dukh. Hind. Pers. Anthemis nobilis, Camomile. Its root under the name of Baboona-Soorkh, is imported via Bombay ; is taken as an aphrodisiac, and general tonic : sells at one rupee a seer.—*Genl. Med. Top. of Ajmere, p.* 128.

BABOONA-SAFAID. A white root imported into Ajmere from Bombay and used as an aphrodisiac.—*Gen. Med. Top. of Ajmere, p.*128.

BABOOWAJA STRUGA. Rus. Castor.

BABRA. Three marches from Jeypore, on the road to Delhi, has one of the edicts of Asoka on a block of stone or rock on a hill, in old Pali and of dates B. C. 309. It is in the oldest Lat character. It differs somewhat in style and language from the pillar and rock edicts. The subject is the Buddhist commandment forbidding the sacrifice of four footed an The Vedas are alluded to, but not named, and condemned as, "mean, and false in their doctrine, and not to be obeyed." The Scriptures of the Munis (which must be the Vedas) are spoken of as directing blood-offerings and th sacrifice of animals. Priest and priestesses, religious men and religious women, amongst th Buddhists, are commanded to obey the edict, and bear it in their hearts.—*Vol. IX. p.* 617

BABRI. HIND. A kind of peach.

BABRIAWAR, one of the five southern districts of Kattyawar, its people, the Babria hindu cultivators are said to be the offspring of an Ahir with a Kuli woman.—See Kattywar, India

BABUAR. SANS. Cordia myxa.

BABUI-TULSI. BENG. Ocymum basilicum. Burm.—*Linn.*

BABULA. BENG. Acacia Arabica.

BABULGONG, a town in L. 75° 53' E and L. 18° 48' N.

BABUNA. HIND. Matricaria chamomilla.

BABUNA and Beena, rivers in the Maharajah Sindiah's territory.

BAHU-PHALLI. HIND; species of Corchorus, C. olitorius, depressus; acutangula.

BABRUNG. BENG. Embelia ribes.

BABUYAN OR THE FIVE ISLANDS, form a kind of circular chain fronting the Coast of Cagayan: their names are

	Lat. N.	Long. E
Lapurip or Dalupiri	19° 15'	121° 14
Fuga...	19 1	
Musa	19 0	
Calayan	19 28	
Claro Babuyan	19 35	121 54
Camiguin	19 4	

—*Horsburgh.*

BAB-WAI. BURM.

BABYLON. There exists a strict chronology of the Babylonian empire, in south Babylonia, dating back to B. C. 3784, consequently 908 years before the immigration of Abraham. The earliest chronology of Babylon extant, has been verified by astronomy, and its ancient history has received much attention. Callisthenes, as the friend of Alexander, was permitted access to the Babylonish records, from which it was shown that they had kept a regular calendar from B. C. 2234. Babylon city was built and extended a long period after the erection of the watch tower of Babel. The temple of Belus was built B. C. 3250, the historical city according to all authorities, if not founded by Nebuchadnezzar is not of much older date, and it is supposed that Semiramis added to it. Its name 'Bab-Ilyun' means the gate of God, and the chief historical events connected with it may be thus enumerated. The first Babylonish dynasty began B. C. 3784, by a powerful Chaldee kingdom in southern Babylonia, and the historical city of ylon is supposed to have been built B. C. 3250. The Chaldean dynasty lasted for 1550 years to B. C. 2234, when Babylon was taken by Zoroaster, a Mede, who then founded there the second Babylonian dynasty. The Median dominion ended B. C. 2011, after a rule of 224 years. Babylon city was so erected, that the river Euphrates ran through the middle of it and it was surrounded with a wall of three hundred and sixty furlongs in circuit, and adorned with many stately turrets: the walls were of that breadth, that six chariots abreast might be driven together upon them (as Ctesias relates) the height was such, as exceeded all men's belief that heard of it. They were of brick, cemented with bitumen, in height, as Ctesias says, fifty orgaya; It is now known that its walls were 60 miles in circumference, 350 feet high and 87 feet thick.

The earliest dominant power in Asia was of the Turanian or Khamitic race, amongst whom Nimrod appeared, and Ch. Bunsen fixes this era at B. C. 8,000 to B. C. 7,000, and this Turanian race was afterwards overlaid by the Semitic and Arian races. Of the dynasties that have ruled in Babylon he names

I. B. C. 3784-86 Chaldean kings, for 1550 years, amongst whom was Nimrod, a Kossite Turanian, and according to Bunsen, it was in their time, somewhere about B. C. 10,000 to B. C. 7,250; that the assembly of people at the watch tower of Babel, and the Semitic polarisation and emigration occurred. The commencement of this Chaldean dynasty was 200 years after the creation of Adam, according to the Hebrew text.

II. 8 Median kings, for 224 years, amongst whom was Zoroaster and his seven successors.

III. 11 Chaldean kings who reigned 64 years.

IV. 49 do. kings who reigned 215 years.

V. 9 Arab kings, for 215 years.

VI. 45 Assyrian or Ninyad kings who reigned for 526 years, amongst whom was Ninus and Semiramis. It was during this dynasty that the Assyrian empire began to be supreme in western Asia, B. C. 1273; this progress was continuous during the first 32 years until the death of Semiramis in B. C. 1222, the 52d year of Ninus or the Derketadæ, but till towards the middle of the 8th century, B. C. 747 Media and Babylon were tributary provinces of the Assyrian empire, Ninus, when sole occupant of the throne, conquered Egypt in the 17th year of his reign; Semiramis overran Egypt and made a victorious campaign into Ethiopia or Kush. Semiramis set out on her Indian campaign, B. C. 1230.

During the 526 years of Assyrian supremacy, it, as also Media, was governed from Nineveh as the metropolis of the Assyrian empire—the kings of the race of Ninus resided at Nineveh on the Tigris, opposite Mosul. Babylon at this time was ruled by a Satrap, or viceroy, with almost independent authority. At length, Sennacherib, king of Assyria, after various struggles with the princes of Babylon, invested his son, Assarhaddon with the sovereignty of Babylon. The struggles, however, with these princes still continued, till at length Nabopolassar, the father of Nebuchadnezzar, who became Satrap of Babylon, in the 123rd year of Nabopolassar, not only made himself independent, but in alliance with the Medes checked the career of the empire of the Assyrians, and raised Babylon into the seat of empire of western Asia. The Medes had revolted, and Sardanapalus, king of Assyria had commanded Nabopolassar to march against them. But instead of doing so, he made an alliance with Cyaxares and marched with him against Nineveh, which was destroyed B. C. 606, from which time Babylon became entirely independent. Sardanapalus burned himself to death in his palace, and ended the Assyrian empire. The fall of Babylon occurred B. C. 417. Southern Babylonia, the country to the eastward of the southern portion of the Tigris, Susiana, was known as Elam. There was at one time, no other empire in western Asia, but the Babylonian. All the Babylonian and Assyrian dynastic arrow-headed inscriptions, hitherto decyphered, refer to South Babylonia, indeed to the country east of the Tigris, that is Susiana, as being " the cradle of sovereignty." There, too, are the ruins of vast cities to which Sir Henry Rawlinson first called attention. Their oldest sacred legend, mentioned by Berosus, accords also with this reference in the inscriptions, namely, that the first dawn of civilization was in southern Babylonia and that the teachers of mankind came from the shores of the Persian Gulf.

VII. The second Assyrian dynasty of 122 years, during which Sennacherib reigned, also Assarhaddon and Sardanapalus, Esarhaddon 3rd son of Sennacherib, took Babylon in 680 B. C. and reigned over it and Nineveh.

VIII. 5 Chaldee kings, 87 years.

IX. 10 Persian kings from Cyrus to Darius Codomanus, 207 years.

The period between Zoroaster and the Median conqueror of Babylon and the fall of the Babylonian monarchy was 1904 years.

Its capture by Cyrus is foretold in Is. xliv. and Jer. xliv ; Jer. l. and li. and Dan. viii. Its power must have been much detested, if the sorrowful expressions anticipatory of its after fall be considered. Isaiah xxi. 3-9. Isaiah says, Go up, O Elam ! besiege O Media !—Babylon is fallen, is fallen : and all the graven images of her gods he hath broken into the ground." While Jeremiah says " Babylon shall become heaps, a dwelling place for dragons, an astonishment, and an hissing, without an inhabitant." Jeremiah li. 37. Babylon fell before the arms of Cyrus about B. C. 504, Nicotris, the queen mother, counselled resistance and as there was an ample supply of food with walls 350 feet high and 87 thick it seemed possible to withstand the siege. But after it had lasted two years, Cyrus opened the head of the canal connected with the Euphrates, and allowed its waters to enter the trenches with which he had surrounded the city. This so drained the bed of the river where it entered the city, that by midnight the two bodies of soldiers whom he had posted at the points of its entrance and exit passed in and opened the gates for the army who poured in and surrounded the palace : within a few hours, the city surrendered. The ruins near Hillah are still, by the Arabs, designated Babel, and all historical records, as well as traditions, agree in representing these as the remains of the first city of Nimrud, the Babylon of Herodotus, Diodorus Siculus, and other historians. Four miles and a quarter N. 20° W. of the bridge of Hillah is the Mujellibeh, near which are the remains of Kasr, as well as those of the hanging gardens, and at rather more than six miles from Hillah, standing amidst, and crowning the summit of, extensive masses of ruin, is the Birs, or Bars-i-Nimrud. This has been considered by Niebuhr, Rich, and others, to be the celebrated temple of Belus, and, according to Herodotus, it was separated from the palace by the river. Lib : i. c. clxxx. L'un [des quartiers] est remarquable par le palais du roi, et l'autre par le lieu consacré a Jupiter Belus—Larcher's Translations.

Porter remarks that when we consider that so many centuries have passed, since Babylon became a deserted habitation, and that it yet lay in the neighbourhood of populous nations, our surprise ought to be, not that we find so little of its remains, but that we see so much. From her fallen towers have arisen, not only all the present cities in her vicinity, but others which, like herself, are long ago gone down into the dust. Since the days of Alexander, we find four capitals, at least, built out of her remains Seleucia by the Greeks, Ctesiphon by the Parthians, Al Maidan by the Persians, Kufa by the Caliphs; with towns, villages, and caravansaries without number.

The pre-eminent mounds are three in number: 1st, the Amran Hill, so named by Mr. Rich in his "Memoir on the Ruins of Babylon" and who designates it by that appellation, from its supporting a small tomb erected to the memory of some personage of that name, said to have been a son of the Caliph Ali, who fell at the battle of Hillah. But there must be some mistake in this tradition. Ali having had only two sons, Hassan and Hossein. The second pile is that called the Kasr, or place which is separated from the preceding by a distance of only 750 yards. The third is known by the appellation Mujeelibe, or Maclouba, "the overturned." It stands about a mile and half northward from the other.

The ancient kingdom of Babylonia comprehended a narrow tract along the river Euphrates, extending from the neighbourhood of Erech, or from about the modern town of Seikh-el Shuyukh, to Babel, a distance of about 154 miles in a direction westward of north, and continuing from thence 287 miles further, in the same direction to Kalneh, on the Khabur. The kingdom extended eastward till it joined Assyria, including Akad, and two other cities no less remarkable. One of them bears the name of El Kush, extensive ruins about 11 miles E. S. E. of Felujah, and the other is the supposed site of antediluvian Sippara, Siferah of the Arabs, (Lieut. Lynch,) which is within the Medina wall, near the southern extremity. The greater part of what was called Mesopotamia in latter times constituted, therefore, the territory of ancient Babel, the Aram naharain, or Syria between the rivers of the Scriptures. Gen. xxiv. 10; Deut .xxiii. 4. The same tract also bore the name of Padan Aram. Gen. xxviii. 2, or Champagne Syria, both of which designations agreed with the description given of the country by Strabo. Babylonia, is the modern Iraq-i-Ajem. —*Ouseley's Travels, Vol. I. p.* 104. *Mignan's Travels*, p. 168. *Porter's Travels, Vol. II.* p. 337 *and* 339. *Euphrates and Tigris Col. Chesney, p.* 118.—*Bunsen's Egypt.*

BACCALA. IT.

Baccalare	... IT.	Bacalhao ...	PORT.
Bacalao	... SP.		

COD. The cod-fish.

BACCAUREA DULCIS.—*Wall.*

Syn.

Pierardia dulcis.—*Jack.*

A tree of Penang and Sumatra.—*Voigt.* 95

BACCAUREA PIERARDI.—*Buch.*

Syn.

B. Ramiflora.—*Lour.*

Pierardia sapida.—*Roxb.*

Lut qua Chin.

This small tree yields a sub-acid edible fruit. It grows in Tippera, Burmah and Cochin-China. *Roxb. ii.* 254, *Voigt.* 95.

BACCHANALS, See Bacchus; Hindu.

BACCHAROIDES ANTHELMINTICA. MOENCH. Syn. of Vernonia anthelmintica.—*Willd.*

BACCHUS. Sir W. Jones imagined that the Dionysos or Bacchus, who is said to have invaded India, was Rama, the son of Cush; the black Osiris of the Egyptians had also the titles of Seirius, Sirius and Bacchus. See Hindu; Iswara; Saraswati; Vishnu; Yavana; Osiris.

BACCOUN ISLANDS, a name of the Tanjong Basso Islands.

BACH. HIND. Acorus calamus.

BACH, a family or got of Rajputs of inferior rank settled on the borders of the Jonpur district, in Oudh and Gorukpur. They are said to be of the Chouhon tribe. The Bach-hal tribe or got now in Alighur, Badaon, Mathura and Shah-Jehanpur claim to be of the Soma Vansi stock residing near Shah-Jehanpur, they supplanted the Gujur, and themselves have been succeeded by the Kutt'herya and Gour Rajput.—*Wils. Gloss. Elliot. Supplemt. Gloss.*

BACH-CHALI KURA. TEL. Basella cordifolia, *Lam.* B'alba, *Linn.*

BACH-CHALI MANDA. TEL. Ceropegia tuberosa.

BACON. ENG.

Spek.	... ... DUT.	Lardum	... ... LAT.
Bacon.	... ... ENG.	Speck.	... ... GERM.
Lard.	... ... FR.	Solo.	... ... RUS.
Lardo.	IT. PORT. SP.		

The flesh of swine, salted and dried; largely prepared in Ireland and America, and in the northern counties of England and southern of Scotland and exported to India. It is a coarse food, and, as that prepared in India is very liable to induce disease of the bowels, its use should be avoided.—*McCulloch, Com. Dict.*

BACONDRY DROOG, in L. 78° 11' E. and L. 12° 38' N.

BACKERGUNJE, a district of Bengal.

BACTRIA, is supposed to have been in the site of the modern Balkh and is the country watered by the Oxus and its tributaries. The name is from "bakhdi" the fortunate or the happy. It formed one of the settlements of the Arians, the third in their migration, and was the central point of their old dominions. According to Ch. Bunsen, the Arian emigration from Sogd to Bactria, took place prior to B. C. 5,000, consequently before the time of Menes. The language of the Zend books is supposed by Haug to be Bactrian and Bactria was the original seat of Zorastrian lore. The power of Bactria was broken by the Assyrians, B. C. 1,200. Semiramis had retreated into it after her defeat on the left bank of the Indus. Alexander the Great, in his advance towards the Indus, formed military stations in Bactria, and after his demise, when the generals of his armies set up for independence, Bactria was carved into a kingdom, which, with varying limits, lasted from B. C. 256 to A. D. 207. Even of that long line of Bactrian kings, through a period of 463 years, the sole existing evidence is the emanations from their mints, exhumed from time to time in and around their ancient seats of government, and, in the almost total absence of annals, whether eastern or western, their coins furnish the only available testimony of the survival, re-institution and extinction of the dominant Hellenic element on the site of Alexander's furthest conquest in the east, and of the potentates who swayed the destinies of those lands for the next four centuries. Professor Wilson gives a list of them from Theodotus I, B. C. 256 to Pantaleon, B. C. 170. Then of barbaric kings, Su Hermæus, Kadaphes and Kadphises from B. C. 100 to B. C. 50; Also of an Indo-Parthian dynasty; of the Indo Scythian princes of Kabul, and a classification of their cotemporaries. Mr. Thomas, in Prinsep's Antiquities gives Major Cunningham's Table. The countries over which they ruled were Bactria; Sogdiana; Margiana; Paropamisadæ; Nysa; Aria-Dranga, Arachosia; Gandharitis, Peukelaotis, Taxila, Patalene, Syrastrene and Larice, but their limits were incessantly varying.

The Asii, or Asiani nomades who took Bactria from the Greeks. Mr. Prinsep considers to be Scythians of Azes, who overpowered the Greek dynasties in Soghdiana and northern Bactria between 140 and 130 B. C. The Bactrian Greeks are usually termed Yavana, in Sanskrit literature, but Colonel Tod warns us not to mistake them for the *Yavana* descended from Yavana, fifth son of Yayat, third son of the patriarchal Nabus, though the Ionians may be of this race. Similarly, he says, the *Saca* of Indian history are the Sacæ races of Central Asia, (the Sac'ha Rajpoot) the *Pahlava*, the ancient Persians or Guebres; the *Chína*, the inhabitants of China, and the C'hasa inhabitants of the great snowy mountains (kho), whence *Kho-chasa* (the montes of Ptolemy, corrupted to Caucasus.

According to Col. Tod, *Rajasthan*, *Vol. I. p.* 233 the Yavan or Greek princes, who apparently continued to rule within the Indus after the Christian era were either the remains of the Bactrian dynasty or the independent kingdom of Demetrius or Apollodotus, who ruled in the Punjab, having as their capital Sagala, changed by Demetrius to Euthymedia. Bayer says, in his Hist. Reg. Bact. p. 84, that according to Claudius Ptolemy, there was a town within the Hydaspes yet nearer the Indus, called Sagala, also Euthymedia; but he scarcely doubts that Demetrius called it Euthydemia, from his father, after his death and that of Menander. Demetrius was deprived of his patrimony, A. U. C. 562. Sagala is conjectured by Colonel Tod to be the Salbhanpoora of the Yadu when driven from Zabulisthan, and that of the *Yuchi* or Yuty, who were fixed there from Central-Asia in the fifth century, and if, so early as the second century when Ptolemy wrote, may have originated the change to *Yuti media*, the central Yuti. Numerous medals, chiefly found within the probable limits of the Greek kingdom of Sagala, either belong to these princes or the Parthian kings of Minagara on the Indus. The legends are in Greek on one side, and in the Sassanian character on the reverse. The names of Apollodotus and Menander have been decyphered, but the titles of 'Great King,' 'Saviour,' and other epithets adopted by the Arsacidæ are perfectly legible. The devices however, resemble the Parthian. These Greeks and Parthians must have gradually merged into the hindu population.

Professor Lassen supposes the existence of four Greek kingdoms, viz. that of Bactria. A second, eastern, under Menander and Apollodotus, comprehending the Punjab and valley of the Indus, with Kabul, and Arachotia or Kandahar added in times of its prosperity. A third, western, at Herat and in Seestan. A fourth, central of the Paropamisus, which latter region Mr. Prinsep is inclined to give to Bactria, because of the bi-lingual as well as the pure Greek coins of Heliocles and Antimachus, kings of Bactria.

Of all the kings who followed Eukratides, Menander and Apollodotus alone are mentioned by classical authorities

The history of the country of the Kophones river, *i. e.* Bactria, Aria and Kabul, is also obtained from coins. Many of the coins have bilingual inscriptions, the one Greek, on the obverse, some of excellent workmanship but often of very barbarous forms, the other on the reverse in that called Arian, Arianian, Bactrian and Kabulian. According to the prevalent authority of Lassen, James Prinsep, Professor Wilson and others, this language is said to be Sanscrit, but Doctor Moore asserts it is Hebrew. It is written from right to left.

The first Greek king Theodotus or Diodotus, B. C. 256, reigned about the same time as Arsaces I.

Theodotus II. B. C. 240, is said to have reigned in the Kabul valley.

Euthydemus, B. C. 220, reigned in the time of the expedition of Antiochus, the great, and was defeated in battle near Merv by the united Syrian and Parthian armies. He then urged Antiochus to receive him in alliance and so extend the Greek influence to the Indus. A peace was concluded, and Euthydemus led the Syrian army through Bactria, *i. e.* by the route N. of the mountains to the Kabul valley and across the Indus in B. C. 206. There, Antiochus made peace with Sophagasenus (Asoka), which that sovereign recorded by edicts on rocks and pillars in various parts of India, in characters exactly resembling those on the coins of Agathocles. In B. C. 205, Antiochus returned by way of Arachotia. The translation of the edicts of Asoka is in the Asiatic Society's Journal for 1838, and that on the Girnar rock names Antiochus as Antiochia Yona Rajah.

Pantaleon B. C. 195, coined in Greek and Sanskrit.

Agathocles B. C. 190 coined with Greek and Sanskrit, is supposed by Lassen to have ruled Kabulistan to the Indus, and Mr. H. T. Prinsep supposes him to have been the governor left by Antiochus in Kabul, after his treaty with Asoka.

Eukratides, B. C. 178 (Prinsep B. C. 181, Bayer, Wilson B. C. 165, Visconti: Lassen B. C. 175.) He seems to have made an expedition to India in 165 B. C., and, on his return from it, to have been murdered by his son. Numerous coins of his have been found in Bactria and Afghanistan and Mr. H. T. Prinsep considers that he ruled originally in Bactria, subsequently made conquests in and south of Parapamisus in Kabul and, first of all the Greeks, coined in the bilingual Arian inscription. The first use of two languages, however, is also ascribed to Agathocles, who used Greek and Sanskrit while Eukratides used Greek and Arian.

Heliocles B. C. 155, the parricide of Eukratides, used bilingual inscriptions on coins in pure Greek and Arian. His rule, though short, extended over Bactria and the Paropamisus.

Antimachus B. C. 150 coined with Greek and Arian.

According to Bunsen, the earliest Bactrian faith was a pure nature worship as recorded in the Vedas. That was superseded by an ethical faith, when light and darkness, sunshine and storm, became represented by good and evil, but in the change, Zoroaster denotes the spirits of evil by the term Deva, common to the old Arian divinities. The Bactrian religion continued unchanged amongst the emigrants until they reached the Punjab. In the west, Zarathustra Spitama, Zoroaster of Europe, one of the mightest intellects and greatest men of all time appeared in the reign of Vistaspa, a Bactrian king, towards the year 3000 B. C. His contemporaries accounted him as a blasphemer, atheist, firebrand, worthy of death, and e was regarded, even by his own adherents and fter some centuries, as the founder of magic; a sorcerer and deceiver; but Hippocrates, Eudoxus, Plato and Aristotle looked on him as a great piritual hero and the earliest sage of a primeval poch. Zoroaster's views are expressed in a ymn, or Gatha, consisting of eleven three line trophes. It seems to have been composed on some great public occasion and offers the choice f following a true path or of continuing in the xisting superstition, and in the 3rd strophe, nnounces the presence of two twin spirits, the Good and the Base and commands them to choose between them. In the fifth strophe he names Ahura Mazda, the All Holy and All True; there is no mention of the name of Abriman, as later regarded by that of the evil principle, but in the seventh strophe Armaiti is named s the mother of the corporeal world who comes, with Power, and with Truth and with Piety, to uccour this life. Later, this religion degenerated nto magism: from this, Persians have derived heir Shah-River: Ashta, or Truth is the second, which has become the Ardi Behesht of the Parsi: nd the third is Vohu Mano, signifying the good ious mind or Piety, out of which has grown he later term Bahman.—*God in Hist. Vol. I.* 274, 271 *to* 288

Zoroasters doctrine spread from Bactria into Media. But in the year B. C. 2,234, Zoroaster a king of Media, conquered Babylon where the rue magism as taught by the disciples of Zoroaser, soon mingled with Chaldean philosophy, and under the despotisms of Xerxes and other rulers, so early as the times of Artaxerxes, rites were ntroduced into Persia, glaringly contradictory f the ethico-spiritual nature of Zoroaster's eligion, which has now-a-days degenerated into fire worship and magical formula.

Zoroastrians used the Zend language which s newer than the language of the Vedas, but lder than Sanscrit. The Bactrian language is commonly called Zend: the Vedic language is tereotyped Bactrian, the Zend is the continuaion of this old Bactrian tongue, with two hases of which we are acquainted. One of hem, the language of the Zend books, the other hat of the cuneiform inscriptions from Cyrus nd Darius down to Artaxerxes II. The Sancrit is the weakened prose form of the old Bacrian, the poetical form of which exists in the ymns of the Rig Veda. These hymns were ransmitted orally. Literature proper only commences with Sanscrit after it became a learned anguage, and it became the sacred language bout the year 1,000 B. C. at the beginning of he fourth age. Both Vedic and Sanscrit were at first living languages, spoken by the people. —Tod's *Rajasthan, Vol.* II., p. 217. Bunsen *God in History, Vol. I. p.* 270 to 298. *Bunsen's Egypt, Vols. III* and *IV.* See Afghanistan; Arians, Greeks of Asia, Iran, Koh, Kabul, Inscriptions, Semiramis ; Hindu ; Kattywar, Zoroaster.

BACTRIAN CAMEL. Camelus Bactrianus.

BACTRUS, or Dehas river, the chief river of Balkh, rises out of the Hindu Cush: near the city, it divides into hundreds of canals making the face of the country one blooming garden of richest fruits.—*Bunsen, God. in Hist. Vol.* 1, *p.* 277.

BAD. Pers. Hind. bad, evil, loss, remission.

BAD. Pers. Hind. The wind, according to Asiatics a common cause of disease. It usually means rheumatism.—*Pottinger's Travels Beloochistan and Sinde, p.* 94.

BADABANALA. Sansc. A term sometimes applied to the South Pole.

BADAKSHAN is a mountainous region, including the upper part of the valley of the Oxus. The capital is Faizabad. It lies between lat. 36° and 38° N. and long. 69° and 73° E, is on the western declivity of the Bolor Tagh in the valleys of some of the head streams of the Oxus, of which the Badakshan river is the principal. Its inhabitants are of the Tajik race, shiah Mahomedans, and speak Persian; the Tajik race here are purer Iranians than other Tajiks. The Tajik possessed the country before the inroads of the Turks and Uzbegs. They are a wild race, living in the little mountain glens, in villages, surrounded by gardens. In the remote mountains of Badakshan are the richest known mines of rubies and lapis lazuli. Marco Polo mentions that the chief of Badakshan laid claim to a Grecian origin ; Baber corroborates the story, and Elphinstone says that the chief of Darwaz, in the valley of the Oxus, was a Macedonian. Burnes also believed in the descent of many of the chiefs of Badakshan from the Greeks of Bactria. Badakshan, is a dependency of Balkh, and lying to the east of that city, on the north of Badakhshan, are the hill states of Wakkan, Shughnan, Darwaz, Kulab and Hissar, all of whose peoples claim a descent from Alexander. To the eastward of Badakshan lies the plain of Pamir, inhabited by the Kirghis, and the Siah Posh Kafirs are on the south, occupying a great part of the range of the Hindoo Cush and a portion of Belut Tagh. Marco Polo resided in Badakshan for the sake of his health, and he described Wakkan, Pamir, Bolor and Kashmir. Badakhshaan rubies were formerly of high repute. The turquoise of Badakhshan and Khokand is of a green colour and is very inferior to the blue turquoise of Neshapur in Persia. In its ruby mines, the gem is said to be found in limestone, along with great masses of lapis lazuli. Its rivulets, romantic scenes and glens, its fruits, flowers and nightingales are spoken of in rapture by the people of the neighbourhood. The Tajiks of Badakhshan are not so handsome as the men of Chatrar ; their dress is like that of the Uzbegs. Zaiback is surrounded by very high hills, and has four gates.—*Markham's Embassy, p.* 163. *Mohun Lal's Travels, p.* 250. See Afghan. Cush. Tibet.

BADADA. Singhalese. Wednesday. It is from Buda.

BADADUM. Tam. Erythrina sublobata. Roxb.

BADAGALE-YAVERU. Karn. Brahmans, followers of Vishnu, in Mysore.

BADAGE, a tribe of slaves in Kurg.

BADAK TAPA. See Semang.

BADAM. Pers. Hind. Is a term which, with affixes and suffixes, is applied to several kernel fruits. Badam, is the almond : Badam-i-Talkh is the bitter almond : Hijli Badam is the Terminalia catappa : Kaghazi (or paper) Badam is a thin shelled almond : Badam-i-shirin, is the Amygdalus communis or dulcis ; and Badam talkh i pahari, is the Prunus Armeniacus.

BADAMI, a hill fort in L 15° 55' N. and L. 75° 42' E.; in the S. Mahratta Country is S. S. E. of Kaladghi. The foot of the fort is 1,646 feet above the sea. Badami is 58 miles N. E. from Dharwar. It is a hill fort of great strength. At the close of the 18th century, it was the scene of a great disaster to a Hyderabad army, which was swept away by a pestilence, it was taken by the British in 1818 and again in 1841.

BADAM-I-HINDI. Duk. Hind. Terminalia catapa.

BADAM-I-SHIRIN. Amygdalus communis, A. dulcis. The almond.

BADAM, JANGLI. Hind. Sterculia fœtida.

BADAM-KANDI. Hind. A sweetmeat imbedding almonds.

BADAM TALKH PAHARI. Hind. Prunus Armeniaca.

BADAM-KA-TEL. Hind. Almond Oil ; Oil of Amygdalis communis.

BADANG, a Malay Hercules, a Wallace or Tell who defended Singapore against invaders.

BADANIKA. Tel. Loranthus longiflorus, L.

BADAON, a town of Rohilcund.

BADAPU, BADIDAPU CHETTU. Tel. Erythrina Indica.—*Lam.*

BADARINATH, is in Garhwal, situated in the Mana pass, within the Hamalayas. It is in 30° 46' N. L. ; 79° 32' E. L. on the right bank of the Bishen Ganga. The entrance to the hindu temple is 10,124 feet above the sea, according to Robert Schlagentweit but according to the Bengal As. Soc. Journal...10,294 feet. Near it, the upper limits of the "Amèsh and Kiùsi," fir-trees is...9,572 feet, the upper limits of the "Bilka and Deodár," fir-trees... 9348 feet ; and the upper limit of walnuts (Akrot)...8376 feet. Immediately below the village of Mana, is the hindu shrine dedicated to an incarnation of Vishnu and one of the most sacred in hindu mythology. The temple is built on the bank of the Bisheu Ganga immediately over the site of a hot spring, the existence of which no doubt led to the original selection of this remote spot. The Rawal, or chief priest, is invariably a Namburi brahmans from Malabar: no other class of brahman being allowed to touch the idol. Many temples erected in the same site have been overwhelmed and destroyed by the avalanches which occur there. Its revenues are derived from the offerings of its votaries and the rents of assigned lands.—*Professor Wilson.*—See Badarinath, Sri Sampradaya, Kunawar.

BADARINATH PEAK. (B ठ) L. 30° 43' 4" N.; L. 79° 15" 6' in Gárhwál, S. E. of Badrinath, a well known hindu temple on the right bank of the Vishnugànga. It is 22,869 feet above the sea.

BADARWAR. A town in the N. W. Himalaya containing three to four hundred houses, all, however, small and without any indication of wealth.—*Dr. Thomson's Travels in Western Himalaya and Tibet, p.* 329.

BADAWET. PERS. Hedysarum alhaji.

BADAWI. ARAB. A Bedouin Arab.

BADAWURD. HIND. Fagonia cretica.

BADDHA. HIND. of Panji Salix, *sp.*

BADDI KANDER. HIND. Saggar of the Salt Range, Ehretia asperas.

BADEK, in Java, a fermented liquor, prepared by boiling and stewing rice, with a ferment called *razi* consisting of onions, black pepper and capsicum. After frequent stirring the mixture is rolled into balls, which are piled up in a vessel, and the badek drips to the bottom.—*Hog. Veg. King.* 816.

BADGACHI. TAM. A low caste in Travancore but superior to pariahs.—*Wilson's Glossary.*

BADGER, the Hebrew Tachash. This name is given to the Meles collaris, Meles albo-gularis, *Blyth.* It is the Indian Badger, and is called the Bhalloo Soor or Bear-Pig. See Mammalia; Meles.

BADHAIL, a bold predatory race occupying Beit in Kattyawar; like the Wagher race of Dwarica, who with the Badhails of Aramra were so long the terror of the western seas, they are a spurious branch of the Jhareja family of Bhooj, one of whom called Abra, with the cognomen of Much'hwal or whiskered, came from Cutch in the time of Rinna Sewa, into whose family he married. His son had offspring by a woman of impure caste, and assumed the name of Waghair, with the distinctive office of Manik or gem. Malu Manek the last chieftain of this race, with all his motley company of Waghairs, Badhails and Arabs was slain in the storm or in the retreat after a desperate defence. See Kattyawar. The Badhail race, along with the Waghers of Dwarica, were long the terror of the neighbouring seas It is probably the Aramra of the maps, in Long. 69° 15' E., and Lat. 22° 27' N.

According to Col. Tod, Uja, the third son of Seoji, a Rhatore Rajput of Canouj, issued from the sand-hills on the Looni, carrying his forays to the Saurashtra peninsula, where he decapitated Beekumsi the Chamara chieftain of Okamundala and established himself. From this act his branch became known as the Badhail.

BADHAQ, a robber tribe of Oudh and its borders.

BADHOO, a hindu royal ceremonial: waving a brass vessel, filled with pearls, round the sovereign's head.—*Tod's Rajasthan, Vol. II. p.* 73.

BADI. HIND. The fortnight from full to new moon, the darkening half of the moon.

BADIAN. HIND. BADIAN-I-KHATAI. PERS. Illicium anisatum: Star-Anise.

BADIKI. TEL. Sapium cordifolium—*R. iii.* 693.

BADISE CHETTU. TEL. Erythrina indica. *Lam.*

BADJU LAUT. See Baju; New Guinea.

BADLA, ALSO BADLI. HIND. Substitute.

BAD-MAASH, PERS. An evil liver, a person living by defrauding others. It is from Bad, PERS. bad, and Maash, food. Bad-nam, disgrace.

BADOCHI, a red earth of Gurgaon, used in dyeing.

BAD PAI. PERS. A swift horse (wind-footed) of Turkoman breed, much prized by the Persians and always found in the stud of a person of rank.

BADR. AR. HIND. PERS. Full moon.

BADRANJBOYA. HIND. Nepeta ruderalis.

BADRARA. HIND. Gmelina Asiatica. See Sarrap, and Pashtu, also, Taxus baccata. The common yew.

BADRASIR, a famed temple of the Jains.

BADRUJ-I-ABIAZ. ARAB. Basella alba: Ocimum album.

BADSHAH, Hind. Pers. a King.

BADSHAHI RAI. HIND. Sinapis brassica, also S. ragosa.

BADRN BADSHAH.

BADSHAHI RAI.

BADUL, a young chief of Cheetore. It is in Cheetore an oath to swear "by the sin of the sack of Cheetore." Of these sacks were three and a half. In the 'half,' the city was not stormed, but the best and bravest were cut off (*saka*). It is described with great animation in the *Khoman Rasa*. Badul was but a stripling of twelve, but the Rajpoot expects wonders from this early age. He escaped, though wounded, and a dialogue [illegible] him and his uncle's wife, who [illegible] him to relate how her lord conducted himself ere she joins him. The stripling replies: "He was the reaper of the harvest of battle; I followed his steps as the humble gleaner of his sword. On the gory bed of honour he spread a carpet of the slain; a barbarian prince his pillow, he laid him down, and sleeps surrounded by the foe." Again, she said: tell me, Badul, how did my love (*peear*) behave ?" "Oh! mother, how further describe his deeds, when he left no foe to dread or admire him ?" She smiled farewell to the boy, and adding, my lord will chide my delay," sprung into the flame.—*Tod's Rajasthan, Vol. I. p.* 264.

BADULLA, a town in Ceylon, near it are hot springs. A race of people, called Pareyas, or strangers are there met with; believed to have been descendants of Portuguese captives made slaves after the re-conquest. Badulla is in L. 6° 59' N. and L. 81° 11' E. 38 miles W. from Nurelia (Newera Elia) and is 2,450 feet above the sea. The highest point of the road between Taldenia and Badulla is 2,345 feet.

BADWAIL, See Badhail.

BADYAN. HIND. Fœniculum vulgare comfits, sugared seeds of the "sonf."

BADYAN KHATAI, HIND. Illicium anisatum.

BADYPOUR, a town in Long. 85° 57' E. and L. 26° 3' N.

BAEL TREE: it is thought that there is but one species growing in India, the Ægle marmelos, which is modified and improved by cultivation; specimens of the plant in fruit and flower were procured from several districts, and compared, but the only perceptible differences were in the size of the fruit and in the disappearance of the spines on the branches as the trees improve.

BAELANG, an islet near Singapore.

BAETAN. AR. In Arabia, the only serpent that is truly formidable is that called *Bætan*, a small slender creature, spotted black and white; its bite is death, and the dead body is swollen by the poison in a very extraordinary manner.—*Niebuhr's Travels, Vol. II. p.* 333.

BÆTYLIA, stones held sacred by the Jews, probably Æreolites. They were without any resemblance to the human figure. See Bait-ul.

BAFT, PERS. Loom work, Calico.

BAFTAS. Anglo Hind. Cotton Manufactured articles.

BAG. HIND. a tiger, many towns are named from this.

BAG-ACHERA. DUK. Pisonia grandis.

BAGADHA, Jarasanda, the king of Bagadha, opposed Semiramis, B. C. 1230, defeated and drove her back to the Indus with immense loss. See Semiramis.

BAG[illegible]ans. Cucurbita, *sp ?*

BAGA[illegible] HIND. Cocculus acuminatus, D. C.

BAGANA[illegible] ALSO BANGANAPILLY, a town in [illegible] India in Long. 78° 19' E. and Lat. 15° [illegible] Near this diamonds are found. It is the chief town of a small principality of Syuds.

BAGAR. HIND. A kind of grass, Eriophorum cannabinum.

BAGA SOLEE, a town in Long. 83° 26' E. and Lat. 24° 25' N.

BAGAWA. SANSC. BHAGAWAT. SANSC. The most meritorious, a name of Budha.—*Hyder's Eastern Monachism.*

BAG-BHARENDA. BENG. HIND. and PERS., also Pahari arund. HIND. Jatropha curcas.—*Linn.*

BAGELA, the name of a Rajput Chouhone race, decended from Komarphal (died A. D. 1166) sovereign of Guzerat. The princes of Baghelcund are of this race: in Guzerat there are many petty chieftains of this tribe, as Lunawarra, Mandvie; Mahera; Godra; Dubboye, &c., &c. Another account of the Baghela is that they are a Rajput race, descendants of Sid Rae. They gave their name to Baghelcund, an entire division of Hindustan. They also occupy Peetapoor and Theraudin in Guzerat. See Baghel; Chouhone; Komarphal.

BAGELEN. A district in Java, see Karang Bollong.

BAGEREE. A nuddy or river of Dhar. The Bageree river runs near Kachrode in the Indore territory.

BAGESUR, a town in Long. 79° 44' E. and Lat. 29° 50' N.

BAGESWARA MATA, a goddess of Baghelcund, to whose shrine Komarphal of Guzerat (A. D. 1166) sent his son. See Komarphal.

BAGGA PATTI. TEL. Limnophila racemosa. —*Benth.* Cyrilla aquatica, *R.* iii. 115.

BAGGALAH, OR BUDGEROW. These vessels trade from Cutch, Guzerat, and the Malabar coast to the gulph of Persia, the coast of Arabia, and the Red Sea. They are Indian vessels, and manned with Indian seamen, called Lascars. See Boat.

BAGH, a town in Kach Gandava.

BAGH. PERS. HIND. A garden. Like the Dutch and Chinese of the present day, the Persians delight in naming their gardens and garden-houses with fancy names, as Farkh-bagh, garden of delight; Lal-Bagh, ruby garden.

BAGHAET, HIND. Garden lands.

BAGHVAN, HIND. A gardener.

BAGHICHA, HIND. Small garden.

BAGHA ? Ficus Indica.

BAGH-AKRA BENG. Prickly Pisonia, Pisonia villosa.

BAGHANDEN, ALSO BAGHI, Palanquin. Bearer in Tinnevelly.

BAGH-ANKRA. BENG. Alangium decapetalum.

BAGHANWALLA, a town in the Salt Range, has the principal seam of tertiary coal. See Coal.

BAGHBAN or **BAGWAN.** Hind. A gardener or vendor of vegetables.

BAGH-BHERENDA. Beng. Jatropha curcas.

BAGHDAD. In L. 33° 19' 50" N., L. 44° 22' 45 E. is the capital of the Turkish province of Bagdad and has a population of 65,000. It is built on both sides of the Shat-ul Arab, the connection being established by a bridge of boats. Baghdad was built in A. D. 763 by the caliph Al-Mansur, out of the remaining ruins of Ctesiphon. It flourished under the caliphs until sacked in A. D. 1259 by Hoologoo, the grandson of Changiz Khan. It has been held by the Turks since 1638. This city is the classic scene of the Thousand and One Nights. It is unequally divided by the river, two-thirds being on the left bank, and the remainder on the right or Mesopotamia side; the town is fortified by a high brick parapet wall, flanked at intervals with bastioned towers, and surrounded by a ditch ; the citadel, which is a respectable work, is situated at the north-western extremity. The bazaar built by Daood Pasha, is one of the finest in the East, and is well stocked with home and foreign manufactures. Some of the mosques are also striking, but the rest of the buildings show, as usual on the exterior, either dead walls or ruins ; but when viewed from a distance, and especially from the river, the luxuriant date groves and rich gardens, contrasted with green domes and graceful minarets, present a rich and attractive appearance. Previously to the plague, which commenced its ravages in 1830, there were 110,000 inhabitants.

Baghdad is frequently called Babylon by the early travellers, and even by the Arab geographers. The Church of Rome still gives the title of "Bishop of Babylon" to the prelate who is placed over the Roman Catholic Christians in the pashalic of Baghdad.

The Khalifs or vicegerents who succeeded Mahomed, ruled sometimes in Baghdad and sometimes in other parts of their conquered dominions. The race of Ommiah, 16 in all, ruled from Damascus, from A. D. 661-2 to 744-5. The Abbassi, reigned at Baghdad from A. D. 749-50 to 1258-9 when Baghdad was besieged and taken by Ali Khan, (Hulagu) grandson of Changis Khan.

The houses are all provided with a Sard-ab or under ground room, and some have the Areesh or open room on the roof.

The Mostanzeria mosque is of the age of the Caliphs. The Tekieh is a monastery of dervishes of the order of the Bektashi, which stands on the banks of the Tigris, on the west side of the town, and is a good specimen of early and pure mahomedan architecture.—(*Chesney's Euphrates.*)

In the 8th century, Hindu Physicians went to Baghdad, and practised at the hospitals. Two of them named Manka and Saleb, were the physicians of Harun ur-Rashid. Nine miles from Baghdad is the small Akarkouf, the ground around the ruined pile called by the Arabs Tall Namrud, and by the Turks Namrud Tapassi. Both these terms mean the hill, not the tower, of Nimrod and the term Akarkouf or Agargouf given by the Arabs, is intended to signify the ground only, around it. It is about 9 miles from Baghdad.—(*Layard's Nineveh, Vol. II. p.* 175.)

Baghdad, the capital of a Turkish Pashalik which extends in a north west direction from the mouth of the Shat-ul-Arab, to the rocks of Merdin, the Baghdad frontier towards Constantinople. In an east and west line, it stretches from the confines of Persia to the banks of the Khabour, which separates it from the pashalick of Orfa ; (the Osrhoene of the Romans, and that part of Mesopotamia which contained the Harran of Abraham, and the famous Edessa of the crusades.) The general boundaries of the pashalick of Baghdad, may be called the Euphrates and Arabian desert of Nedjid to the west and south ; Kuzistan and the stretch of Zagros to the east ; the pashalick of Diarbekir or Hollow Mesopotami, to the north-west ; and Armenia, with the Kurdish territory of Julamerick to the north. The whole, forming a kind of irregular oval comprehending ancient Babylonia, and all Assyria Proper. That portion of the pashalik which lies north-east of the Tigris, which comprised the chief part of Assyria, is now called Lower Kurdistan ; a name not very dissimilar, as Major Rennel observes, to the old Scripture appellation for Assyria, found in the Second Book of Kings and in the Prophet Amos, both of which, probably, refer to the country east of Nineveh as the land of Kir. The rest of the pashalick lies between the widely sweeping currents of the Tigris and the Euphrates, commands the no less renowned boundaries of Babylonia, including Chaldea, its most eastern quarter. This insular country was also designated by the ancients, by the name of Mesopotamia, so denoting its situation between two rivers, and modern times have changed its appellation again ; the Arabians calling it Al Jezera, and the Persians including it within the line of Irak-i-Arabi.

During the early trade in the Persian gulf, direct intercourse was for many years maintained with the Governors or Pashas of Turkish Arabia without much consideration of their relation to Constantinople. In the year 1639 there seems to have been an English factory at *Bussora* subordinate to the factory at Gombroon and protected by firmans. But the first firman on record is one granted in 1759 (No. XL) by the Pasha. In 1765 it was proposed permanently to appoint an Agent at Baghdad, but the proposal was disapproved by the Court of Directors. In 1835 the Political Agent in Turkish Arabia, who had hitherto been under the Bombay Government was put directly under the control of the Supreme Government. In 1841 consular powers were conferred on the Agent by Her Majesty's Government.

Treaties, Engagements and Sunnuds, Vol. VII. p. 175. *Porter's Travels, Vol. II. p.* 246,281. *Mignan's Travels. p.* 90, 102. *Rich's Kurdistan. Colonel Chesney's Expedition. Layard's Nineveh. Thomas Prinsep.* See Kasr, Kirkook, Khalifah, Khalif Kufa, Mosul, Namrud. Rawlinson, Tigris.

BAGHDADI TAMAKHU, Hind. A variety of tobacco from Baghdad.

BAGHEL according to Wilson, in his Glossary of Indian Terms, are a branch of the Sisodhiya Rajputs of Guzerat, who migrated eastwards. Sub-divisions of the tribe, under different denominations are widely spread through Bundelcund, Allahabad, Benares, Gopur, Cawnpore and Farakhabad.

According to Sir Henry Elliot in his Supplemental Glossary, Baghel. Hind. Lit. Tigers' whelps, are a branch of the Solunki tribe of Rajputs, who give their name to Baghelcund, also called Rewa. It lies to the south of Allahabad. They were formerly rulers of Guzerat and some Solunki chieftains are still there. Rajah Ram Baghel protected the wife of Hamayun, Akbar's mother, and Akbar gave the tribe much influence. There are Baghels in a Bundlecund, Furrukabad, Allahabad. The Baghel chief of Rewa is a Baghel. He is the descendant of the famous Sid Rai Jyi Singh, the ruler of Anhalwar Pattan from A. D. 1094 to 1145. His whole court was visited by the Nubian geographer Edrisi. Edrisi states that Jyi Singh was then a buddhist.—*Elliot.*

BAGHELCUND, a territory in Central India, whose princes are of the Baghel or Baghela race. This territory is also known as Rewa.

BAGHI. Ar. Hind. Pers. rebellious.

BAGHLAH. Arab. A ship of the eastern seas, of the Indian Ocean and Bay of Bengal, from 50 to 300 tons burthen. The name is derived from the Arabic, and is the feminine of Baghl, a mule, but is variously written by Europeans, as Bagla, Baggalow. Wellsted supposed it to be from the hindi-bagala, the crane. *Burton's Pilgrimage, i.* 262. *Wellsted's Travels, I. p.* 16. See Boat.

BAGH-LUTA, Beng. Moonseed. Cocculus acuminatus.

BAGH-NULA. Beng. Spider-Wort. Cynotis axillaris.

BAGNU. Hind. Populus ciliata.

BAGH-NUKKOSHIM. Beng. Lablab falcatum, minus.

BAGHRAM near Charikar about 30 miles north of Kabul is supposed by Mr. Prinsep to be Alexandria apud Caucasum, in which Alexander's army passed the winter of 330—29 B. C. Greco-Bactrian coins have been found here in great profusion.

BAGHUNA. Hind. Rhus cotinus.

BAGHWAN, a territory in Baluchistan, held by the Eltaiz-Zye, a branch of the Kambarari tribe, related to the Khan of Kelat. See Kambarari; Kelat.

BAGI. Can. Sweet flag.

BAGIRETTY, a river near Plassey in Kishnagurh.

BAGLA or BAGULA. Sans. The genus Ardea.

BAGLA. See Baghlah. Boat.

BAGLAN, on the crest of the western ghats, supposed to be the original residence of the Mahrattas, who there, as a mountain race, cultivated the fertile valleys or Mawals. See India.

BAGLAST. Dan. Ballast.

BAGLUNG Chaur, a town in L. 83° 14' E. and L. 28° 24' N.

BAGLYE, a river in Sylhet.

BAGMUTTEE, a river near Mullye: the Little Bagmuttee runs through Muzuffurnugur.

BAGNA, a river near Raepoor in the Sabathoo district.

BAG-NAK or Wag-nak, amongst the Mahrattas, a weapon worn on the hand in the form of a tiger's claws, made of curved steel blades set on a bar with rings through which the fingers pass. It is struck as if tearing with claws. It was a weapon of this kind with which Sivaji struck Afzul Khan. See Bowani.

BAGON. Phillip. Balachong.

BAGOON, Beng. Common Egg-plant, Solanum melongena.

BAGOOWAL, a town in Long. 74° 30' E. and Lat. 32° 57' N.

BAGORAH a town in Rungpoor district.

BAGRAM, a town in Long. 69° 8' E. and Lat. 34° 28' N.

BAGRENDI. Hind. Jatropha curcas.

BAGRI. Hindi. According to Wilson, Bagar is the tract lying between the S. W. borders of Hariana and the Sutlej, occupied by the Bagri tribe who are regarded as Jats. Bagar is also a tract on the S. W. of Malwa; and a robber race called Bagri have settled in the eastern parts of Malwa, Hissar and Bhattiana. Sir H. Elliot says they were originally Rajputs, now classed as Jats. Some Bagri are professed robbers.—*Wilson's Glossary. Elliot's Supplement.*

BAGRI, low caste hindus of Central India, professed robbers now settled in the east of Malwa.

BAG-SIRA. Hind. Gryllus monstrosus. Locust.

BAGU. Malay. Wagu. Javanese; Gnemium gnetum.—*Crawfurd's Dic., p.* 26.

BAGUI. Philippine. Typhoon.

BAGUMPETTA, in Long. 77° 50' E. and Lat. 18° 15' N.

BAGUN, a river near Singpoor in Banda.

BAGUR, a large tract of country in Malwa, its people are called Bagri. See Bagri.

BAHA, a title applied to Sikh ascetics; both this and *Shah* (king) were frequently employed by the Sikh historians when speaking of their founder. They even style him Nanuk Narinkur, or Nanuk the Omnipresent. *—Malcolm. Macgregor's History of the Sikhs, Vol. I. p.* 48.

BAHA, a water-course natural or artificial. It is from Bahna, *Hind.* to flow.

BAHADUR. PERS. The seventh title amongst Indian mahomedans and hindus, and generally given along with other titles, as Motamid-ud-Dowlah, Bahadur; Madar-ul-Umra, Bahadur; Sir Salar Jung, Bahadur.

BAHADUR KHEYL, in Afghanistan, to the east of the Joorduk Pass. There, also at Kharrah and Lutumur, are the three Trans-Indus mines. See Khyber. Waziri.

BAHADUR SHAH, Emperor of Dehli. His name was Maazzam, he was son of Aurungzebe. After having defeated and slain his brother Azim in a battle near Agra, on the demise of his father, he ascended the throne. He died at Lahore in 1712, aged 72, after a reign of 5 years, and was succeeded by his son Ferokh-sir who tortured to death the Sikh guru Banda, a byragi ascetic, successor of Guru Govind.

BAH, A-MISR, a navigable branch from the Karun river, that parts from it 7¾ miles from Mahamerah, and runs 31 miles S. E. to the Persian gulf. See Baha; Khuzistan.

BAHAN. Pashtu. Populus Euphratica; Euphrates poplar.

BAHAN BANJAR, land allowed to lie fallow: fallow land.

BAHANGI, OR **BHANGI**, in peninsular India, a postal term for the heavier book and parcel post.

BAHAR, in Long. 85° 32' E. and Lat. 25° 11' N. The chief town of the province of Bahar.

BAHAR OR **BEHAR**, one of the ancient territorial divisions of India. It is traversed by the Ganges, and now embraces the revenue districts of Bahar, Bhaugelpoor, Durrumpoot, Ramghur, Shahabad, Monghyr, Saran, Tirhoot and Patna, an area of 5,694 square miles with a population of 2,500,000. It is now a part of the Bengal Presidency, extending to the N. W. of Bengal, on the northern slope of the Vindhya mountains, from the borders of Bundelkhand or rather Rewah and Malwah to the Gangetic plain. It includes the districts of Palawan and Ramgarh, as well as the lower half of the valley of the Son, and is separated from Orissa by the watershed of the Vindhya chain. The climate is similar to that of Orissa. It is separated from the province of Bengal by the Rajmahal hills. Bahar is watered by the Ganges, the Gandak and the Sone rivers and is traversed by the Rajmahal hills, which run in a north easterly direction towards the Ganges. The origin of the name is uncertain. Hindus assert it to be from Vihara, a monastery, but Professor Wilson supposes it to be derived from the Bhar race who are distributed through that part of the country. The Kol race also extend into Bahar. *-Wilson's Glossary.* See Topes, Vihara.

BAHARA, ALSO **BALHARA**, an ancient hindu dynasty that ruled in Guzerat and Surat (Saurashtra). The capital was Balabhipura, and the dynasty was named Bahara, Balabhi and Bala Rai. Balabhipura was destroyed by the Parthians in A. D. 524. See Saurashtra.

BAHARLOO, one of the seven Turkish tribes that supported Shah Ismael, one of the first of the Suffavean kings of Persia, about A. D. 1500. They wear the red cap, and are part of the Kazzilbash. See Kajar, Kazzilbash.

BAHARPOOR, a town in the Hooghly district of Bengal.

BAHADERPOOR, a town in Long. 87° 52' E. and Lat. 24° 24' N.

BAHADERPOORAH, in Long. 75° 53' E. and Lat. 21° 43' N.

BAHAWULPUR, a mahomedan territory lying to the east of the river Indus, north of Saurashtra. The reigning family can, it is said, trace their descent to the great caliphs of Bagdad, including "Haroun-al-Rashid." But such genealogies are always doubtful. The reigning chief at Bahawalpur according to Mr. Masson is of a Jet family, called Daoudputra, or the sons of David. They formerly lived about Shikarpur, but becoming numerous, and perhaps refractory, they were expelled; and crossing the Indus, possessed themselves of the country, where they established separate and independent chiefships. Many of their leaders built towns, to which they gave their respective names; hence Bahawalpur, the town of Bahawal; Ahmedpur, the town of Ahmed; Faizlpur, the town of Fazil; Sabzul Kot, the kot or fort of Sabzal; &c., &c., Bahawalpur is seated on the skirts of the desert. The town is built a few miles from the south bank of the Gharra river and the transition from a land of sterility and solitude to one of fertility and abundance is very striking to the traveller approaching it from the east. The Bahawalpur territory is bounded on the north by the provinces of Multan, Mankirah, and Liya. To the south it has the great desert, separating it from Jessalmir. On the east it touches to the north on the lands of the Sikh chief of Patiala, and more directly east, on the frontiers of the Rajput principality of Bikkanir. Westward it is defined by the river Indus, which divides it from Mittan Kote, and a slip of territory dependent on *Dera Ghazi Khan*; and lower down, from Harrand and Dajil, provinces of the Brahui Khan of Kelat.

Bahawalpur is remarkable for the manufacture of longees, or silken girdles, and turbans. The inhabitants of this, and all the neighbouring countries on the west and north, are principally Jut and Beloch, who profess the mahomedan religion. There are many opulent and commercial towns in the Bahawalpur dominions. Amongst the first class towns, may be reckoned Bahawalpur (the capital,) Barra, or (Great) Ahmedpur, Uch, Khanpur, &c. Amongst the second class, Chuta, (or little) Ahmedpur, Allahabad, Gugujar Walla, Channi Khandi Got, Ghazipur, Kinjer, Pularah, Murut, Moz Ghar, Gudiana, &c. Bahawalpur is seated about two miles from the river Garrah. Barra Ahmedpur from having been merely a cantonment has become an extensive and commercial town, as well as the principal residence of the Khan.

Uch is, perhaps, the more ancient of the towns in the country. The name is borne by two towns contiguous to each other. One of them, Pir-ka Uch, was bestowed on Pir Nassir-ud-din, the spiritual adviser of the Khan. Khanpur is forty cosses from Barra Ahmedpur. It is surrounded by a country amazingly fertile, and is a depôt for indigo, rice, and all kinds of grain. Chuta Ahmedpur is a fair-sized town, with good bazaar, and surrounded with mud walls. Gujugar Walla, Channi Khandi-Got, Ghazipur, and Kinjer, are all small, but commercial towns, dealing principally in grain, the produce of the country. Pularah, on the frontier of Bikkanir, has a good bazaar. Gudiana a frontier town. Murut has a trade in grain, but is of little importance as to its position. Moz Ghar is not so large a town as Murut, but its contiguous fortress is a lofty structure, built of kiln-burnt bricks. The chief fortress of the state is Durawal, equi-distant from Ahmedpur and Bahawalpur, or eighteen coss form each.—*Ephinstone's Kingdom of Caubul, Vol. i. p.* 26. *Masson's Journeys, Vol. i. p.* 17 *to* 26. See Saurashtra. Bhawul-pur.

BAHDINAN, tribe in Kurdistan, along with the Sekkir, Nur-ud-din, Shinki, Gellati, Bulbasi, Jass and Mikri, are under the prince of Amadiyah and Rowanduz, and number 4,00,000 souls. See Kurdistan.

BAHI. HIND. A ledger, ordinarily pronounced Bhy.

BAHIKA, a tribe occupying the neighbourhood of the Indus near Attok, at the time of Alexander and Chandragupta. See Kabul: Chandragupta. The *Bahika* were one of the republican [illegible] known as the Arashtra (Sans.) or the ki[illegible] the republican defenders of Sangala or [illegible] They are the Adraistæ of Arrian, who [illegible] them on the Ravi. They were known [illegible] several names of Bahika, Jartikka and Takka, from which last is the name of their old capital of Taxila or Takkasila as known to the Greeks. The people still exist in considerable numbers in the Panjab Hills, and their alphabetical characters under the name of Takri or Takni are now used by all the hindus of Kashmir, and the northern mountains from Simla and Sabathoo to Kabul and Bamian. —*Elliot.* See Chandragupta. Kabul.

BAHIRA. SANS. Terminalia bellerica. Belleric myrobolan, the fruit, is very astringent considered cooling, and given in hematuria, much used in dyeing, and in mesalihs; is common in all bazaars; and sells at eight seers for one rupee.—*Gen. Med. Top. of Ajmere, p.* 128.

BAHIR-VASI, HIND. A hindu of unclean avocations who resides outside (bahir) the town.

BAHLIM, a mahomedan tribe in Dasna and Meerut. Some of the banjara of Rohilcund, take the name of Bahlim.—*Wilson's Glossary.* A mahomedan tribe near Meerut, also Banjara tribes of Rohilcund, also a gang of thugs.—*Elliot.*

BAH-MAH-THOA. BURM. A useful timber of Tavoy.

BAHMAN, the mahomedan pronunciation of brahman. See Brahman.

BAHMAN, afterwards named Ardeshir was the son of Isfendiyar, the brazen-bodied, a prince of great renown in Persian annals. He is one of the most conspicuous heroes in the Shah Namah.

BAHMANI, a dynasty of mahomedan sovereigns who ruled in Beder, in the Dekhan. They held the country towards Gulburga, in the south-west and part of Telingana in the east. The first of the dynasty was Ala-ud din Hussain Gangawi, Bahmani. When the Brahmani kingdom of the Dekhan became dismembered at the end of the fifteenth century into the five states of Bejapore, Ahmednuggur, Berar, Golconda, and Beder; these, for 150 years, continued incessantly at war and ruined the centre of the Dekhan so that it is still with few inhabitants. The Kutub Shahi dynasty of Golconda or Hyderabad commenced about A. D. 1520. See Hyderabad.

BAHMAN SAFAID, BAHMAN SURKH. HIND. Centaurea behmen.

BAHOLI OR BHAWALI. HIND. Land about the village homestead in Kangra, &c.

BAHOR in Kangra, a kind of rock.

BAHR. ARAB. PERS. The ocean, a sea, a great river, as Bahr-ul-Yemen, Bahr-ul-Abiad the white Nile; Bahr-ul-Azrek, the blue and Bahr-ul-Aswad, the Black Nile, Bahr-ul-Kulzum, the Red Sea, Bahr-i-Oman, the Arabian sea.

BAHRAM, the name of five of the Sassanian kings of Persia, whom the Romans styled Varanes and Varanus.

Smith Mordtman.

Varanes	I A. D.	274,	271 the 4th king.
	II „	277,	274 5th styled Segan Shah.
„	III „	294,	291 the 6th king.
„	IV „	390,	389 styled Kerman Shah.
„	V „	420,	420 styled Bahram Gour.

In the reign of Bahram Gour the famous imposter Mani, founder of the sect of Manichaeans, made his appearance, and was put to death by the king. Bahram Gour, was famous for his liberty, gallantry, and love of the chase. According to Colonel Tod the darkest period of Indian history is during the six centuries following Vicramaditya, during which foreign tribes were pouring into India from the north. Doubtless many of the Rajput tribes entered India from the north-west regions about this period. Gor. Pers. and Gardha. HINDI. mean the 'wild ass,' and Bahram was surnamed Gor from his partiality to hunting that animal. Various authorities state that Bahram Gor was in India in the fifth century, and left progeny by a princess of Kanouj. A passage in an ancient Jain M. S., indicates that in "S. 523, Raja Gardha-bhela, of Cacoostha, or Sooryavansa, ruled in *Balabhipoora*." It has been surmised that Gardhabhela was the son of Byramgor, a son of whom is stated to have obtained dominion at Putun. —*Tod's Rajasthan, Vol. i, p.* 232. See Afghanistan; Sassanian Kings; Valerian.

BAHRAM, general and regent during the minority of Akbar. He was displaced by Akbar, against whom he revolted, was defeated and pardoned.

BAHRAM SHAH, an emperor of Delhi, who deposed his sister Radhia, and reigned for two years at Delhi, being then killed in a revolt.

BAHREIN, the name of two islands in the Persian Gulf.

BAHREIN, also called Awal Island on the Arabian shore, is one of the finest in the gulf. It is covered with villages and date-gardens; and has the town and fort of Medina, with about eight or nine hundred houses. Bahrein, extends from Lat. 26° 14' to 25° 46½' N. and occupies a central position in the Gulf of Bahrein, it is about 80 miles in circumference, 27 miles long and 10 broad, with a mahomedan population of about 70,000. Its pearl fishery employs about 4,500 vessels and boats. Owing to the richness of its pearl fisheries, Bahrein was long a field of contention between the different powers that towards the end of last century strove for supremacy in the Persian Gulf. In the year 1799, after having often changed masters, it was conquered by the Uttoobee tribe, by whom it has ever since been held under allegiance, at one time to Muscat and afterwards successively to the Wahabees, to Turkey and to Persia, and now in independence. It furnishes the best dates of all the land of Oman. In 1820, after the capture of Ras-ool-khyma by the expedition sent against the piratical tribes in the Gulf, the two chiefs, Abdoolla bin Ahmed and Suleiman bin Ahmed, who then ruled Bahrein conjointly, signed a preliminary engagement not to permit in Bahrein the sale of property procured by plunder and piracy, and to restore all Indian prisoners then in their possession. They also subscribed a general treaty for the pacification of the Persian Gulf. The Chiefs of Bahrein were parties to the engagement in 1847 for the suppression of the slave trade.—*Kinneir's Geographical Memoir, p.* 17. *Horsburgh. Wellsted: Aitchison's Treaties.* See Khorfaken.

BAH'RWATTIAH, (bah'r, out and wat a road). This term is applied to Kattyawar Rajpoots who on some quarrel with their landlord quit their villages, which thus lie waste, and occupy the neighbouring fastnesses from whence they make inroads until hunted down, or a compromise or settlement occur. See India.

BAHU, a land measure in Java, equal to 71 acres.—*Simmonds.*

BAHU. HIND. The arm.

BAHU-DAKA, a hindu ascetic mendicant, a Sanyasi. Wilson derives the term from bahu, many and udah a water, as such mendicants beg from every house.—*Wilson.* See Paramahansa.

BAHURA. BENG. Terminalia bellerica.—*Roxb.*

BAI, BAEE, BYE, BHYE MAHR. A lady, a mistress, a respectful address for a woman. In Bengal, a dancing girl, a prostitute.

BAIA, AR. BAI, AR. A sale, Bai-namah, a of sale. Baina Earnest money.

BAIBARANG. HIND. Myrsine Africana.

BAIBARANG—KATAI. HIND. Melissa or Nepeta.

BAIBGA? A tree of Akyab, plentiful in the Sandoway district. Used for firewood.—*Cal. Cat. Ex.* 1862.

BAIB-YAH. BURM. Conocarpus robusta.

BAID, or Bed, herbalists, who search for and sell medicines. They are often quoted as authorities for the properties of plants, but they are poor and illiterate, often beggars, They are a caste or a race. A considerable number occupy the Hyderabad country near the Bheemah. See Ved.

BAID. HIND. Populus alba.

BAIDERA. CAN? The people or trib from whom the term Pindara w[illegible]btained, and many of whom are occupied [illegible]ers on bullocks. In the many cultivat[illegible]roughout the hills which extend northw[illegible] Kapaladurga, Tippoo settled ma[illegible]baidara or hunters who received 12 pagodas a year, and served as irregular troops when required. They were excellent marksman, and in following the armies spared neither life nor property. These men were the chief instruments of Hyder and his son in the depredations of the Carnatic. There are two Baidar principalities in the Dekhan, one at Zorapore (or Baider Zorapoor) and one at Ghur-ghuntah. The men are tall and good looking fond of sport. They eat the wild hog and when I passed through were urgent for to join them in hunting it.—*Buchanan's Mysore, p.* 179.

BAIDWANA, descendants of the Chowhone or Pramara Rajpoot, who embraced mahomedanism. See Chowhone.

BAIES DE GENIEVRE. FR. Juniper Berries.

BAIGAR. HIND. In the south of India, persons compelled to give their labour as porters or for public works. It is the compulsory or statute labour of Britain.

BAIGAR. Wilson says that Baigar is a name of the Kharwar tribe, but this term is not known in the Peninsula. The Kharwar are dyers with the red dye from the Morinda umbellata.

BAIKAR. HIND. Oil from Prinsepia utilis.

BAIKAL Lake in Mongolia is an expansion of the Angura river. Its length is nearly 400 miles (according to Bell 300 miles) with 45 miles of average breadth from north to south. It has steam boats plying on it. Its seal and sturgeon fisheries are valuable, and the oil of the fish called the golomynka, the Callionymus Baicalensis is valuable. Mountains encompass the lake entirely. The river Selingue falls into it from the south-west and here the lake is about 50 miles broad; the Paeur-ku-simo from the south-east, and the Gong-ko-la (Upper Angura) from the north-east. Towards the north-eastern end of the lake is an island called O-leao-han (Olchon) about 50 lee in breadth, and 200 hundred or more in length. This island is frequented by 50 or more of the families of the wandering tribes of the Mongols and the Pu-la-te (Buraty of Bell), and they bring hither with them their horses. Baikal lake is 1,715 feet above the level of the sea, Selinghinsk, 1,779 feet, and Kiakhta 2,400 feet: consequently higher than all the towns of the Harz and the Swiss Alps. "The Baikal has many and various kinds of excellent fish, particularly sturgeon, and a fish called omully, in shape and taste resembling a herring, but broader and larger. The omully come in vast shoals from the Baikal, in autumn, up the river [illegible] ue to spawn, after which they return to the lake [illegible] that many of them are carried dow[illegible] on the surface of the stream. During the progress of the omully up the river, the inhabitants of the adjacent villages assemble with their nets, and catch as many of them as they please. On this occasion the poor take what they can use, and the rest are left upon the banks. These fishes advance up the river about 10 miles a day. On their first appearance, the report is soon spread over the country, and, in two or three hours, the people catch as many as they need either for present use or winter provisions. This fish is very agreeable food either fresh or salted. They are observed to be much better and fatter the nearer they are caught to the sea.—*Staunton's Narrative, p.* 45-53, *Timbowsky's Journey to Pekin, I,* 17-18. See Souriat; Mongol; Koulk Kouren.

BAIKIE, Dr. Robert a medical officer of the Madras army, who wrote observations on the Neilgherry Hills in Mad. Lit. Trans. Vol. IV. p. 388, and Notes on the climate of Coorg. Ibid 1836, Vol. IV. part 2. p. 338.—*Dr. Buist's Catalogue.*

BAIKUNTH, the heaven of Vishnu.

BAIL KAMBAR, the Canarese name of the Taremuk or wandering blacksmith. They wander about the Mahratta country. Wilson writes the name Bailu kanomar, Kar.

BAILUCH, a river near Chota Rewuliah in Oodeypoor.

BAINA. SANS. Andropogon muricatum.

BAINGAN. HIND. Solanum melongena, Egg plant.

BAINGANI RANG. HIND. A dull purple color, like that of the rind of the baingan fruit.

BAINGAN TAMAKU. Hind. a variety of tobacco.

BAIO-JENTI. BENG. Sesbania Ægyptiaca. PERS.

BAIRAGI. HIND. A hindu ascetic mendicant. See Byragi, Viragi.

BAIRAGULLEE, a Kafir tribe in Kafiristan.

BAIRATH, a town between Delhi and Jeypur near Bhabra.

BAIRIS, a river that issues from the Oodi-Sagur lake of Rajputanah and passes within a mile of Chitore. There are two grand reservoirs within six miles of each other, the Péshola, or internal lake, having an elevation of eighty feet above the external one, the Oodi-Sagur, whose outlet forms the Bairis. The Péshola may be called the parent of the other, although it is partly fed by the minor lake at the villa of Suhailea-ka-bari. Both are from twelve to fourteen miles in circumference, in some places thirty-five feet deep, and being fed by the perennial streams from the Aravalli, they contain a constant supply of water. From the external lake to Chitore, the fall is so slight that few locks would be required; and the soil being a yielding one throughout, the expense of the undertaking would be moderate.—*Tod's Rajasthan, Vol. II, p.* 627.

BAIRIYE. Singh. A durable wood of Ceylon, weighing 57lb. 10 oz. per cubic foot, and lasting 10 to 30 years. The tree is found chiefly near the mouths of the rivers, in the northern and western provinces of Ceylon, and its timber is used for anchors and in house-building.—*Mr. Adrian Mendis.*

BAIS, according to Professor Wilson, a numerous tribe of Rajputs, in Oudh, and at Baiswara in the N.W. Provinces who give their name to a district. They assert that they came from Manji Paithun in the Dekkhan, and that they are descendants of King Salivahana (A. D. 78) They are included amongst the 36 Royal races.—*Wilson's Glossary.*

BAIS. Hind. A species of Salix or willow.

BAIS. Hind. A verbal alteration from Vais, or Vesya, the third order of the hindus.

The bankers, merchants and shop-keepers known as Marwari, call themselves Bais or Vais. See Vesya.

BAISA Bol. See Bol.

BAISAKH, amongst Hindoos the first of their luni-solar months, April and May. On the first baisakh, is a holyday, in which hindus bathe as a religious ceremonial, in rivers, canals, at Hardwar, in the Ganges or other holy rivers.

BAISHNAVA. See Vaishnava.

BAISHEE. Beng. Willow tree. Salix Babylonica.

BAISLEE. A river near Bijowlee in Gwalior.

BAIT. Arab. A house, Bait-Ullah, the house of God, Mekka, Bait-ul-makaddas, the Holy house, Jerusalem.

"**BAIT.**" Ar. Hind, Pers. A couplet in the Arabic, Persian and Hindustani poetry of the mahomedans but the poets of Sind apply the word to their peculiar triplets. The war song or that sung in battle like the Arabic Rajaz is called "Shair" in Sind, and was performed by the Mirasi, or bard, who accompanies the chief, during the combat.—*Burton's Sind, p.* 386.

BAITARA. Sans. Dry Ginger.

BAITOOL, a district in Central India, near the source of the Taptee river.

BAIT-UL-FAKIH, an inland town of the district of Tehama, a province of Yemen. The town of Arabia, from which the coffee tree was taken to Bourbon.

BAIZ. Ar. White, a mark or signature by a feudatory mahomedan, generally *the first* part of the Arabic letter *swad.*

BAIZAH, also Baidah, Arab. An egg: also, owing to the shape, the testis.

BAIZA-BAI was born towards the close of the 18th century. Her father was Shirzi Rao, Ghatgay, a Mahratta leader and minister of great notoriety, and her brother was Hindoo Rao. She was married to Dowlut Rao Scindiah with great pomp, she was a woman of imperious disposition and masculine temper, and when her husband died childless in 1827, she assumed sovereign power. Afterwards she adopted Mugut Rao, a relative of her husband, and acted as Regent till Mugut Rao came of age, when, weary of restraint, he sought British protection, and he was placed on the Musnud in A. D. 1833. On this, Baiza Bai retired to Agra, then to Furruckabad, and subsequently to her Jaghire in the Dekhan.

BAIZAWI, author of the Nizam-ut-tuarikh, a general history of the Ghaznavides.

BAIZ-I-MURGH. Pers. Fowl's egg.

BAJA. H. Musical, Baja bajantri, musical instruments.

BAJAGRIHA. See Buddha. Sakya muni.

BAJANTRI KORAWA, a branch of the Korawa tribe, who are usually the village musicians, from Baja music. They are the Bajantri or Gaon Korawa or Sonai Kolawaru. See Korawa. India.

BAJASWA. According to Colonel Tod, the three great branches of the Indu (Lunar) Aswa bore the epithet of Mida (pronounced Mede), viz., Poora-mede, Uja-mede, and Deomede, and he supposes these to be the Aswa invaders of Assyria and Media, the sons of Bajaswa, expressly stated to have multiplied in the countries west of the Indus, emigrating from their paternal seats in Panchalica.—*Tod's Rajasthan, Vol. I. p.* 58.

BAJAWAR, also Bajor, a mountain district, in Central Asia, south of Kafiristan. See India; Kafir; Khyber.

BAJAZET or **BAYAZID ANSARI**, the founder of the Roshanai sect of mahomedans: called by the opposite sects Pir-Tarik or the saint of darkness

BYAZED or **BAJAZET**, a rocky fortress on the N. W. frontier of Persia.

BAJI RAO, the name of two Peshwa or first officers of the Mahratta sovereignty of Poonah and Satarah. Balaji Baji Rao, who succeeded his father after the battle of Paniput 1740, where the Mahrattas were defeated by Ahmed Shah, Abdallah, and the second Baji Rao, who in 1818 surrendered to the British after the battle of Ashtee near Poonah. The Peshwas had usurped sovereign power. See Mahratta. Sevaji. Peshwa.

BAJPAI, H. Vajpoyi. S., a branch of the Kanouj brahmans.

BAJRA. Hind. A large boat in use for travelling on the Ganges, called budgerow by the British. See Boat.

BAJRA, ALSO **BAJRI.** SANSC. A weapon, a thunderbolt.

BAJRA. HIND. Pencillaria spicata. This very common grain in India is not so heating as Jawari or Holcus sorghum, it is made into cakes or porridge. Sown in fields at the commencement of the rains.

BAJRANGA, a name of Bhairava, it means a thunder-bolt frame from Bajra, a thunder bolt and anga the body. See Bhairava, Bairava.

BAJRI. HIND. In the Panjab. A sort of gravel of disintegrated rock used also when ground up in forming plasters and stucco. Qu. Is it kaolin or decayed felspar?

BAJU. A maritime people in the Arru Islands, who venture far to sea. Many of the Baju remain throughout the year near the Dutch settlement of Macassar, on the south end of Celebes, where they are found very useful in carrying despatches. They are chiefly employed by the Chinese in fishing for trepang, or sea-slug, and according to the policy invariably adopted by the latter in their dealings with the natives are generally involved in debt, from which extrication is nearly hopeless. The demand against each boat or family usually averages about four hundred guilders (twenty-five pounds sterling) and, extraordinary as it may appear, no instance is on record of their ever having absconded to avoid the payment of their debts.—*Earl, p.* 335. The Baju are commonly called Sea-Gipsies. They are found in considerable numbers in the sea which lies between the east coast of Borneo, and the west coast of Celebes. They are said to have come originally from Johore, in the Malayan peninsula, the inhabitants of which they much resemble in features and habits. Many of them are settled in permanent villages on the east coast of Borneo, but the greater number live in their boats, which are from five to ten tons burden, during the whole year, and shift their position with the changing monsoon, so as always to keep on the lee side of the island, and, consequently, in fine weather. They all profess the mahomedan religion, and differ but little, except in their maritime habits, from the Malays, though they are said to adhere less strictly to the tenets of their faith. They also deal in tortoise shell, and it is said engage in piratical acts, though they do not pursue it as a profession. They also manufacture a bitter saline substance from the ashes of sea-weed, nipah leaves and the marine plants of salt marshes, with which they traffic. Such of them as reside in permanent habitations, have fowls about their houses, and, in all respects, resemble the other mahomedans. Their villages are built on posts, and always over the water, and close to the sea, or near the mouths of large rivers, in which the eastern part of the island abounds. They are expert divers, and would be useful in this manner, if European capitalists should think proper to fish the rich banks of the pearl and mother-o-pearl oysters in Malludu Bay, and amongst the islands of the Soolu Archipelago, which, from having been so long neglected, would doubtless be found immensely productive. Many of the Baju are situated in the seas of Celebes, about the Dutch settlements, and are found very useful in carrying despatches, &c.—*Low's Sarawak, p. from* 342 *to* 345. See Arru Islands. Orang-laut.

BAJUR. HIND. Pashtu, Picea webbiana, Picea pinrow, the silver fir

BAJUR, a district of Afghanistan, a country north-west of Peshawar. See Bajawar.

BAK. SANS. Ardea torra and A putea.

BAK. See Bhak.

BAKAL, a shop-keeper, a dealer.

BAKAL, low caste labourers of Canara. *Wilson.*

BAKHUR, in Bundelcund, Saugor and Malwa, a sharp plough coulter.—*Ell.*

BAK'HUR, a house, a cattle-shed.—*Ell.*

BAKAIN. HIND Melia sempervirens.

BAKA-KAI. MAL. Cucumis melo.

BAKAL. SANS. Mimusops elengi.

BAKAL. HIND. A shop-keeper [illegible] a close fisted person.

BAKAM. ARAB. [illegible] Cæsalpinia sappan.

BAKAMU CHAKKA. TEL. Cæsalpinia sappan, *L.*

BAKAPUSHPAM CHETTU. TEL. Agati grandiflorum,—*Desv. var*-albiflorum.

BAKAR. Hindi of the Cis-Sutlej, Kalesar, &c., Cornus oblonga.

BAKAR ALI, nephew of Saadat-Ali, and father of Murtuzza Ali.

BAKARJAN. BENG. Melia Bukayun.

BAKAS. SANS. Justicia adhatoda or Adhatoda gandarussa.

BAKAYUN. ARAB. Melia sempervirens.

BAKCHI. SANS. Conyza (Serratula) anthelmintica.

BAKER, W. E. A Bengal officer; a writer on various subjects connected with the Natural History and productive resources of India, chiefly contributed to the Journal of the Bengal Asiatic Society.

BAKER, author of Eight Years' Wanderings, and also the Rifle and the Hound of the Wild Spirts of Ceylon.

BAKERGANJ, a town in Bengal, 120 miles east of Calcutta. It lies between the Megna and Jessore. It is low and famed for its rice cultivation.

BAKHA. PERS. Tortoise.

BAKHIL. HIND. A miser, a close fisted person.

BAKHRA, a town in Tirhoot, where there are many mounds and remains of an ancient buddhist city, with images and inscriptions. See Kesariah; Inscriptions 374-5.

BAKHSH. Pers. from Bakshidan, Pers. A gift, donation, a donor, usually Bux. Bakhshish, a present.

BAKSHI, a military chief, a paymaster.

BAKHSHI in Turkistan, a troubadour, a wandering singer.

BAKHSHISH. Arab. Hind. Pers. A present, a donation or gratuity, in Syria and Egypt, regarded as the drink-money of Europe. The mahomedans of Syria and Egypt, shout for bakhshish on every occasion. It is seldom heard in India.

BAKHTAR ZAMIN, the Bakhtar country, the present name of the country between Balkh and Kabul. Ancient Bactria.

BAKHTEGAN, a lake in the province of Fars, which receives the Kurab river. See Fars; Iran.

BAKHTIAR, a Gilji general who under the orders of Kutub-ud-Din, about A. D. 1,201 conquered Behar; in 1203, Bengal, but in his expedition against Bhootan and Assam, he was signally defeated and driven back to Bengal, where he died from vexation about A. D. 1206.

BAKHTIARI, wandering pastoral tribes of Kurds, who take up their warm winter quarters in Arabistan, at the head of the Persian Gulf, but, in summer, travel northwards amongst the mountains of Kirman Shah. The inhabitants of Luri-Bazurg are now classed under the general title of Bakhtiyari; but originally this name merely applied to a small tribe, one of the twenty-six distinct clans among whom the province was divided. The Bakhtiyari, with their dependencies, numbered recently 28,000 families. They comprise exclusive of dependencies, three divisions—the Haft—Lang, the Chahar—Lang and the Dina ruin. The Backtiyari tribe who inhabit the mountains of Luristan west of Irak between Shuster and Ispahan, and from Shuster to near Kermanshah, often wander to other parts. They have often attacked Ispahan, Nadir Shah alone having almost reduced them. They are named Πατισχοϐοεεις by Strabo, and Patiskharis in the cuneiform inscriptions. Their manners and language have scarcely changed since the days of Cyrus. They retained their independence till about 1840 when they were conquered and decimated by the Persian government, and their chiefs kept in perpetual imprisonment at Teheran. The country is famed for the expedition of Alexander and his successors rule. The country south of the great chain probably formed the site of the ancient *Elam* of Scripture, a powerful nation in the early days of Abraham, before the kingdoms of Assyria and Babylon rose into notice in the east.—*Baron C. A. DeBode's Travels in Luristan and Arabistan, p.* 522. *Ferrier's Caravan Journeys, p.* 8-500. *Malcolm's History of Persia, II.* 465. See Fars. Kashgoi, Kurdistan, Luristan, Mamaseni.

BAKING. As mahomedans object to eat the fermented loaf bread of Europeans, the following is a receipt for unfermented bread—Flour 1 lb., bicarbonate of soda 40 grains, cold water ½ a pint, muriatic acid 50 drops. The following is a receipt for the preparation of egg or Baking Powder:—carbonate of soda, 56 lbs., tartaric acid, 28 lbs., potato flour, 1 cwt., turmeric powder ¾ lb. The egg and custard powders, used in lieu of leaven or yeast, are all combinations of carbonate of soda and tartaric acid, mixed up with wheaten flour, or other kinds of starch, and are often coloured with turmeric or chromate of lead; the latter ingredient is decidedly injurious to health, and if in large quantities, is poisonous; it is extremely doubtful how far any of these preparations may be used with safety to the public.—*Hassall.*

BAKKA MEENA. Hind. Scops Aldrovandi. See Birds, Ornithology.

BAKKAL. See Bakal.

BAKKAR, built on a rocky island opposite to the town of Rohri the fortress of Bakkar, is a fortified island, and was once held by the Durani, latterly by Mir Sohrab of Sind, and now by the British. The effect of the landscape is wonderfully increased by the beautiful stream, and the immense groves of date-trees, which fringe its banks. Every traveller will be delighted with the scenery of this favoured spot. It was ceded to the British by the Talpur dynasty, 29th Jany. 1839.—*Masson's Journey, Vol. I. p.* 362.

BAKKUL. Hind. The fibrous bark of the roots of certain trees, used in Malwa, as a cheap substitute for string and cord.—*Royle.*

BAKLA, Duk. Vicia faba, the garden bean, cultivated at the same season and manner as the kidney bean.—*Riddell.*

BAKLA KUBTI, "the bean of Pythagoras." See Lotus.

BAKLAT-UL-AHMAKA. Arab. Purslane.

BAKLAZUN, Duk? Phaseolus vulgaris. Dwarf or Kidney Bean.—*Riddell.*

BAKM. Hind. The dye wood of Cæsalpinia sappan.

BAKOH, also **BAKOU,** also **BAKU,** in the north of Persia on the Caspian, a place of pilgrimage, to which even hindu pilgrims from India resort. It is now a part of the Russian territory. It has black naphtha springs, and when the weather is thick and hazy, the springs bubble up higher, and sometimes the naphtha takes fire, and runs like burning lava into the sea. The flaming soil or everlasting fire of Bakoh is the attraction to pilgrims and is not less famous than its Naphtha springs. See Kirkook, Jogi.

BAKOT. Iron of this place is largely utilized.

BAKR-EED, also Eed-us-Zoha. A mahomedan festival held on the 10th day of the twelfth month of the mahomedan year, called Zi-ul-haj. It is the festival in commemoration of Abraham offering up his son Isaac or, as the mahomedans say, Ismael. The name of this son is not particularly mentioned in the Koran, but he is generally believed by mahomedans to have been Ishmael, not Isaac. Some Indian Shiah's however suppose him to have been Isaac; but the Persians all agree that he was Ishmael. This feast is also named E'ed-i-kabeer (the great feast) and Eed-uz-zoha (feast of daylight). In India it is called *bukreed*; and in Turkey Korban Beiram. Numbers of sheep and goats, sometimes a camel or an ox are sacrificed on this day and the flesh distributed to the people.

BAKRI, A. D. 763, originator of the Moulad-i-Sherif, recitations by mahomedans of the birth, miracles and death of their prophet

BAKS. BENG. from SANS. Bakas: Adhatoda vasica.

BAKSA. BENG. Rottbölla glabra.

BAKSAR. 25° 34'; 83° 59' in Hindustan on the right side of the Ganges, 70 miles west of Dinapore. Railway bungalow is 350 feet above the sea. Ad. Schl.

BAKSHI. HIND. Gardenia tetrasperma. See Bandaru.

BAKU. See Bakoh.

BAKUDAH, a small town near Baghdad with a bazaar and mosque, it was formerly of great importance.—*Ferrier's Caravan Journeys.*

BAKUNING, a tin mine of Banka. See Tin.

BAKUR-CHEEREA, or 'the bird's nest,' also called Jodagir or Hill of Strife Joda, on the recommendation of an ascetic, erected castle on it. Doubtless its inaccessible position seconded the recommendation of the hermit, for its scarped summit renders it almost impregnable.—*Tod.*

BAKUS. BENG. Malabar nut Adhatoda vaisca.

BAL. HIND. **BALA.** HIND, young, as balamrai a young mango grove.

BAL. HIND. **BALM.** Tel. Strength.

BAL, the sun god of the hindus, identical with the Baal god of the Egyptians and western Semitic nations. The worship seems to have been originally astronomical and subsequently physiological. In the former, the sun was worshipped direct, as yet in India, every morning, and at every solstice or sakrant. In the physiological worship, the female power of Bal was Baal-tis. These formed an androgyne divinity, and their worship had a physiological bearing. The semitic emblem of Baal was the pillar on the high places, and his companion was the bull or calf—all identical with the hindu mythology, in which Ba-al or Bal is represented by Siva, whose emblem is the pillar or lingam encircled by the yoni with the vahan bull, Nandi or Basava facing in front. See Numbers xxii. 41; xxiii. 14—28.

The worship of the god Bal seems to have been adopted in Egypt and throughout south-western Asia, and sometimes to have been considered that of the creative sun; sometimes in the form of the physiological emblems. The sun worship of India seems to have had its chief place in Saurashtra, which was in constant intercourse with Egypt and Western Asia. Under one or other of these philosophical explanations, Baal or Bal or Belus was the chief god of all the Semitic nations. The Arian Brahman seems, now, to have chiefly adopted the astronomical view: the Rajput and the southern Asiatics, the physiological, but in India at present, these philosophies are all confused. At present the *Sacrant*, or *Sivrat* (night of Siva) is the winter solstice. On it, in ancient times in India, the horse was sacrificed to the Sun, or Balnath—the lord Bal. The Scandinavians termed the longest night the '*mother night*,' on which they held that the world was born. Hence the Beltane, the fires of Bal or Belenus; the Hi-ul of northern nations, the sacrificial fires on the Aswamedha, or horse sacrifice worship of the sun, by the Sooryas on the Ganges, and the Syrians and Sauromatæ on the horses of the Mediterranean. When "Judah did evil in the sight of the Lord, and built them high places, and images and groves, on every high hill and under every tree," the object was Bal, and the pillar the lingam was his symbol. It was on his altar they burned incense, and "sacrificed unto the calf on the fifteenth day of the month" (the sacred Amavas of the Hindus). The Calf of Israel is the bull (Nandi) of Baleesar or Iswara; the Apis of the Egyptian Osiris. According to Colonel Tod, (*Tod's Rajasthan, Vol I. p.* 76) The temple of SOLOMON was to Bal, and all the idolaters of that day seem to have held to the grosser tenets of modern hinduism.—

" Peor his other name, when he enticed"
" Israel in Sittim, on their march from Nile.'

Paradise Lost, Book I.

Colonel Tod tells us that Bal-nath was the God Bal of the ancient times of India, and *the bul-dan*, was the gift of the bull to the sun, and he tells us that there are numerous temples in Rajasthan of *Baalim*; and that Balpoor (Mahadeo) has several in Saurashtra, all representing the sun. There is at Balpoor a temple to Bal-poor Siva, or Siva of the town of Bal, with its lingam yoni and ball of brass, and Bal-Eswar is the lord Bal, Maha-bal-Eswar, the great lord Bal. In ancient western Asia, Bal and the brazen calf were specially worshipped on the fifteenth of the month, and, in

India, the sacred day of Bal-Eswar, with his Vahan bull Nandi, is the amavasa the moonless fifteenth day of the month. Amongst the Rajput races, according to Colonel Tod, Har is the patron of all who love war and strong drink, and is especially the object of the Rajput warrior's devotion: accordingly blood and wine form the chief oblations to the great god of the Indus. The Gosains, and the peculiar priests of Har, or *Bal*, the sun, all indulge in intoxicating drugs, herbs, and drinks. They are usually seated on a lion, leopard, or deer-skins, their bodies covered with ashes, their hair matted and braided, with iron tongs to feed the penitential fires, and their savage appearance makes them fit organs for the command of the god of blood and slaughter. The bodies of these Gosain priests, ministers of Har, the god of war, are not burned like the hindus, but are buried, and a circular *tumulus* is raised over the remains; and with some classes of Gosains, small tumuli, whose form is the frustrum of a cone, with lateral steps, the apex crowned with a cylindrical stone.—*Tod's Rajasthan*, *Vol. I. p.* 77. *Tod's Travels*, *p.* 54, 49. *Milner's Seven Churches of Asia*, *p.* 100. *Layard's Nineveh. Sonnerat's Voyage*, I, 160. See Astarte; Ashtoreth; Baal, High claces. Sundhya: Sundevan:—*Ken.*

BAL, an ear of corn.

BAL Guz. Hind. Hair. See Shawl.

BALA, Beng. Twisted Hibiscus, Pavonia odorata, also Hibiscus tortuosus.

BALA. Duk. Cuscus root.

BALA. Hind. A child, in hinduism, a minor under 16, according to British Indian Law, under 18. Bal-gopala, name of the infant Krishna. Many hindus and many hindu towns have names beginning with Bal, sometimes referring to infancy as bal-amra or young mango grove, sometimes to a deity.—*Wilson*

BALA. Hind. Young, youthful, as Bal Amrai, a mango grove plantation. Women are termed *Bala*, if under sixteen; *prude*, middle aged; *bridu*, when forty.—*Tod's Rajasthan*, *Vol. II. p.* 251.

BALA, a grub which eats the young plants of wheat or barley when about six inches high.

BALA. See Greeks of Asia.

BALA. Hind. also BALA MUSKH, Valeriana Wallichiana.

BALABAC ISLAND, lying off the S. W. extremity of Palawan and 32 miles north from the opening between Banguey and Balambangan, it is 20 miles long, and 8 miles broad. It has a peak on its eastern shore, 1,600 feet high.—*Horsburgh.*

BALA BAGH, in Long. 70° 38' E and Lat. 34° 5' N.

BALA-BAND, Hind A fillet wrapped round the turband. The *bala-bund*, or 'silken fillet,' was once valued as the mark of the sovereign's favour, and was tantamount to the courtly "orders" of Europe.—*Tod's Rajasthan*, *Vol. I. p.* 652.

BALABANDI TIGE. Ipomæa pes-caprae, —*Sweet.*

BALA BHADRA, son of Nanda and elder brother of Krishna. He is the patron of agriculture. He was of great strength and irate temper.—*Taylor.* See Baldeva.

BALABHI. An era mentioned by Tod, as occurring in an inscription found at Somnath, commencing 318 A. D. Balabhi was destroyed in 802 Samvat, from which time it may be presumed the era was discontinued. This is also written Valabhi, and in an inscription on copper plates found there, of date A. D. 328, containing grants of lands to brahmin priests, the era used in the inscription is the Valabhi era, corresponding to the 375th of Vikramditya, or A. D. 319. Balabhi, or Balhara, in Guzerat, is represented to have been destroyed under Siliditya 3rd, A. D. 524, by a Bactro-Indian army; it is supposed to be the Byzantium of Ptolemy. In the first inscription, Dhruva Sena is a follower of Bhagavata, and Dharapattah of the sun; all the rest worship Siva. The brahmans are not spoken of with any respect or veneration, as the grants simply say, I give to such and such a brahman. Very considerable doubt exists with respect to the accuracy of the date of the inscription. The character corresponds to that of the eighth century. When Huian-thsang was at Balabhi in the seventh century, there were 100 Buddhist monasteries, and 600 Buddhist priests; and the king, although a Kshatriya, was a Buddhist. See Balabhipura. Kalian. Saurashtra.

BALABHI PURA seems to have been the ancient kingdom of Balhara, ruled by Ballabhi princes. Their chief town, Ballabhipura according to Tod was destroyed by an irruption of the Parthians, Getes, Huns or Cathi, or a mixture of these tribes, and he gives the date as A. D. 524, but Thomas gives A. D. 745, the Chinese traveller Huian-thsang visited it in the seventh century. Its ruins exist, about 20 miles west of Bhownugur in Kattiwar, near the modern town of Wallay, and the extent seems to have been from the Aravala mountains in the north to the Tapti. On its destruction Anhulwara became the seat of government, its princes bearing the name of Bala Rai and this endured until the 14th century.—(*Elliot's History of India*, *p.* 356.) Colonel Tod says (*Tod's Rajasthan*, *Vol I. p.* 102) that at all events, the prince of Deo laid the foundation of Anhulwarra Puttun in S. 802 (A. D. 746), which henceforth became the capital city of this portion of India, in lieu of *Balabhipoora*, which gave the title of *Balica-rae* to its princes, the Balhara of the earlier Arabian travellers, and, following them, the geographers of Europe.

Chittore is the capital of the kingdom of Oodypore. But its dynasty claims to be the descendants of Lob, the eldest son of Rama of the Solar dynasty. They say that they were first ruling at Balabhipore, a city in the Gulf of Cambay, but their capital was laid waste by the son of Nowsharwan of Persia A. D. 524. The Rajput queen escaped the general destruction and gave birth to a son who was named Goho, from whom the rajahs of Oodeypore are descended. Goho established the kingdom of Edur, and eight princes succeeded him on the throne.

BALACHAN. OR BALACHANG. MALAY.

Gna-pi	BURM.	Bagou	PHIL.
Trasi	JAPAN.		

A condiment in general use in Burmah, and both the Malay and Philippine Archipelago. It is prepared in various ways, but ordinarily from prawns, sardines, (Engraulis meletta,) and other small fish, pounded and pickled. It is one of the largest articles of native consumption throughout both the Malay and Philippine Archipelago, Asiatic Islands, by the Burmese, the Siamese, and Cochin Chinese. It is, indeed, essentially, the article known to the Greeks and Romans under the name of Garum, the produce of an Engraulis, a mediterranean fish. A mild description of Balachang is made in Bombay, and sold as an item in Indian oilmen's stores. 13,500 tons valued at £90,000 sterling, were exported from Burmah from 1st November 1854 to 1st November 1855. It is a kind of caviare, in general its aroma is too strong for European taste, but some of the best, from Tavoy and Mergui, which we got when there is of a reddish colour and is very similar to the anchovy paste of the London oilmen. That most in use is made of a species of very small shrimp, which, in the fine season, is found in enormous numbers on the borders of the sea: it is salted and pounded in a mortar, and being made up into little parcels is sent into the interior, where it is highly esteemed. The inferior kind is made of all kinds of little fish, shrimps, &c., in the same way, but does not bear so high a price. In another mode, the ingredients are placed in a pit to undergo fermentation, and afterwards dried, pounded and preserved with spices. With the Malays, Siamese, Burmese and Cochin Chinese, Balachan has become a necessary of life, as it serves to season the daily food of these nations. In Sumatra the red Balachang is the best and it is made of the spawn of shrimps, or of the shrimps themselves, which they take about the mouths of rivers. They are, after boiling, exposed to the sun to dry, then pounded in a mortar, with salt, moistened with a little water and formed into cakes, which is all the process. The black sort, used by the lower class, is made of small fish, prepared in the same manner. On some parts of the east coast of the island, they salt the roes of a large fish of the shad kind, and preserve them perfectly dry, and well flavoured. These are called trobo.—*Ainslie's Mat. Med. p.* 144. *Faulkner's Com. Dict: Yules' Embassy. Crawfurd's Dict: p.* 27. *Marsden's Hist. of Sumatra, p.* 63—4.

BALAD. AR. A district, a town. Balad-ul Jahaf, a district in Yemen; Ibn-ul-bald, a citizen.—See Khadim. Saba.

BALADARPADA. See Inscriptions.

BALA-DITYA-CALU. A Telugu astronomer who wrote in the 4558th year of the Cali-yug.

BALAEN, a large division of the Jats.

BALÆNA, a genus of whales, species of which occur both in the northern and the southern seas. The whale of the Greenland fisheries belongs to this genus.

BALÆNA ANTARTICA, the antartic, smooth-backed-whale, is not known in the central parts of the Pacific. But in spring it resorts to the bays of Chili, South Africa, the Brazils, Australia, New Zealand and Van Dieman's Land.

BALÆNIDÆ, a family of mammalia, of the order Cetaceæ, the whale tribe. In the Balænidæ family, there are, in India, four genera and 7 species, viz. one Balenoptera, four Balæna, 1 Physeter and one Phocæna. See Mammalia.

BALAGHAT, a geographical term to designate the table land in the south of Peninsular India. It forms the collectorate of Salem, literally above the ghat.

BALAGHU, a town in Long. 69° 52' E. and L. 34° 49' N.

BALA GHUND Pusht. Ægle marmelos.

BALAGÑINI. See Kyan.

BALA-GOPALA, SANS. From bala, a child, go, a cow, and pala, a feeder, a name of the infant Krishna. See Bala; Krishna; Rudra.

BALAGUNDA, in Long. 77° 50' E. and Lat. 10° 10' N.

BALAHARA. See Kabul.

BALAHEREE, in Long. 76° 52' E. and Lat. 27° 7' N.

BALAIS FR. Brooms.

BALAJI, a brahman chief of the Mahratta cabinet, after the accession of Sahoo, secured for himself as peshwa the entire authority and power of the state. On his demise in 1721, his son, the first Baji Rao, succeeded him. Baji Rao, was ambitious. He exacted the chouth, enforcing his exactions by predatory excursions. In 1731 Baji Rao compelled the Azof Jahi dynasty to permit him to plunder the northern parts of the Moghul territory. He crossed the Nerbudda in 1732, plundered Malwa, obtained a third of the Jhansi territory; in 1736 obtained the cession of Malwa; in 1737, he exacted from Azof Jah an assignment of all the countries south of the Chumbul, the surrendêr of Benares, Gya, Mattra and Allahabad. Baji Rao, for 20 years, headed the Mahratta confederacy, and elevated it to a high pitch of glory. He died 1740 on the banks of the Nerbudda, and was succeeded by his son Balaji Baji Rao. Baji Rao, the second son of Ragboba succeeded to the peshwa or chiefship on 24th October 1745, his cousin, tired with the state of affairs, had thrown himself from a terrace of his palace, and was killed. Nana Farnavis, however, put him aside and placed Chinnaji, Baji Rao's younger brother, on the throne, but Baji Rao again got the ascendancy, and commanded the Mahratta armies. In March 1751 he opposed Ghazi-ud-din Khan, but made peace for money. In October along with Ragoji Bhonslah, he invaded the territories of the Golcondah rulers, but made peace with Salabut Jang at Beder. See Baji Rao; Peshwa; Mahratta Governments.

BALAK. Two hills, six hundred paces asunder, in the district of Balad-ul-Jahaf in Yemen. This district is the land of Sheba being so called to the present time, Ard-us Saba, and Balkees, the queen of Sheba, built a masonry dyke or dam between the two Balak hills. It is famed in Arabian story as the Sail-ul-Arun or Sail-ul-mareb.—See Balkees. Saba.

BALA KHANA Pers. Upper story, whence comes balcony in English.—*Rich's Koordistan. Vol, I, p*, 205.

BALAL, in Karnatica, an honorific appellation.

BALAM. Hind. Cymbopogon aromaticus.

BALAMBANGAN or BALAMBANG Island, called Berobangan by the Malays, nearly 15 miles long, lies in the Balabac Strait, at the north-east side of Borneo. It was once a possession of England, and from the extreme richness of that portion of the island it might have proved a settlement of great value, but it was relinquished to Holland in 1827. It has two excellent harbours. The principal station on the peninsular tongue off the southern harbour was determined to be in Lat. 7° 12' 51 N. Long. 116° 49' 8 E.—*Horsburgh.* See Kyan.

BALAM PULI. Maleal. Tamarindus Indica.—*Linn.*

BALAND, a town in Long. 82° 10' E and Lat. 22° 19' N.

BALAND. Hind. The name of a rajah of the Khurwar tribe.

BALAND, a tribe formerly dominant in Ajoree Burhur and the southern parts of Mirzapur. They were expelled by the Chundel rajputs and now occupy Munwas a principality in subordination to the raja of Rewa.—*Elliot.*

BALANITES ÆGYPTIACA, Delli: a small thorny tree common about Delhi and up to the Jumna. Its nut is about the size of an egg, and when scooped out is filled with gunpowder as a fire work. It yelds an oil.

BALANISTUM. Hind. Flowers of Punica granatum.

BALANOPHOREÆ. This order of plants contains several parasites such as the Rafflesia, and the Cytinus hypocistus, or Cisti trees of Europe, which yields the hypocistus juice. This owes all its properties to the presence of an abundance of gallic acid.—*O'Shaughnessy, p.* 569.

BALANOPHORA is a curious leafless parasite growing abundantly on maple in the Zemu valley in Sikkim and also in the N. W. Himmalaya. This species produces the great knots on the maple roots, from which the Tibetans form their drinking cups mentioned by MM. Huc and Gabet. Dr. Hooker found a small store of these knots, cleaned, and cut ready for the turner, and hidden behind a stone by some poor Tibetan, who had never returned to the spot; they had evidently been there a very long time. The Lepcha drink out of these little [illegible] cups, which are very pretty, often poli [illegible] mounted with silver. Some are supposed antidotes against poison and hence fetch an enormous price; these are of a peculiar wood, rarer and paler-coloured. Dr. Hooker has paid a guinea for one such, hardly different from the common sort, which cost but 4*d*. or 6*d*. MM. Huc and Gabet graphically allude to this circumstance, when wishing to purchase cups at Lhassa, where their price is higher, as they are all imported from the Himalaya. The knots from which they are formed, are produced on the roots of oaks, maples, and other mountain forest trees, by the above described parasitical plant, known to botanists as *Balanophora*—*Hooker Him. Jour. Vol. I., p.* 132.

BALANOPHORA GIGANTICA is a favourite astringent remedy in Burmah.—*O'Shaughnessy, p.* 569.

BALANOPHORA INDICA. *Wall. Cat.* 7224. This is found in the forests of the Central Province of Ceylon, at an elevation of 3,000 to 5,000 feet.—*Thw. En. pl. Zeyl. p.* 293.

BALANOPTERA, a genus of the wh family, Balænidæ, of the order of Mammal Cetaceæ. See Mammalia.

BALANUS, the barnacle genus, one of the Cirrhipedia of the Articulata. Some of those found on the old timbers in India are very large.

BALAPORE, several towns in India, one is in Long. 80° 56' E. & Lat. 25° 18' N., the other in Long. 80° 59' E. & Lat. 27° 20' N., a third is 20 miles S. W. of Akolah.

BALA RAI. See Bahara ; Balabhipur Saurashtra.

BALARAMA, elder brother of Krishna. His history is greatly mixed up with mythical-legends, but he seems to have married Revati.

BALA RAMA, the eighth avatar, or incarnation of Vishnu : the word Bălă in Sanscrit meaning strength. See Avatar ; Jaganath, Krishna ; Nath Rama ; Sri Sampradaya ; Saraswati ; Inscriptions.

BALAS, called also Palash and Balsaces, the 18th Sassanian king of A. D. 484.

BALARATEE. Sans. From bălă, strength and aratee, an enemy.

BALASORE, a town and bay and river in Orissa, in the N. E. of the Peninsula of India, the entrance being in L. 21° 28' N. L. 87° 4 E. The East India Company formed a factory at Balasore.—*Horsburgh.*

BALAS RUBY; Badakh-shan, has been known since the days of Marco Polo, as the country producing the real balas ruby, as well as the lajivard or lapis lazuli, from which is made the beautiful blue pigment called ultramarine.—*Paper's East India Cabul and Affghanistan, p.* 186. See Badakhshan.

BALAST. Rus. Ballast.

BALASA PANDU. Tel. Webera tetrandra.

BALAZAR, an intoxicating electuary prepared from the Malacca bean, the Anacardium, hence the name Al-Baladuri of Ahmad.

BALBAJAMUS. Imperata cylindrica. *Beauv.*

BALBAND, the Mahratta alphabetical character.

BALBAPILLI, L. 13° 47' N., L. 79° 26' S. in the Karnatik, a small village 18 miles S. of Kodur. It is from 630 to 679 feet above the sea.

BALBEC OR BAALBEC. The Ba-alith of Scripture and Heliopolis or Temple of the Sun of the Greeks is now a ruined town. It is built on the lower slopes of the Anti Libanus, 43 miles N. W. of Damascus in Lat. 34° 1 30' N., and L. 36° 11' E. The date of its origin is unknown, but Antoninus Pius built one great temple. It was sacked in A. D. 748 by the mahomedans and finally pillaged in A. D. 1400 by Timur; now contains about a hundred Arab families, cultivators and herdsmen who reside in a quarter surrounded by a modern wall. The great temple of the sun and its buildings are at the western end, outside the modern walls. There were rows of pillars in the Corinthian order of architecture, almost all of which have now fallen, as also, have the roofs of great courts, one of them 144 feet square, and vaulted passages. On the east is a court 230 feet by 118 feet, which had arches on its western and northern sides. See Baalbec.

BALBEJ OR BALTEJ. The tariff valuation of this in Bombay is Rs. 4 per cwt.

BALBI, Gaspar, a merchant dealer in precious stones who travelled to India between 1579 to 1588.

BALCH'HARU. See Jatamansi.

BALCHIR. Hind. Nardostachys Jatamansi.

BALCHUR. Hind. Beng. Jatamansi valerian. Found near standing water at Ajmere, the roots are small and knotty, and fine, like hair, hence the name : have a sweet scent : are tasteless : used to heat, strengthen and excite the system. One tola is the dose. Are very much used also in hair mesalihs ; price two seers for one rupee. Also the name of a grass, the roots of which are like fine hair, sweet-scented, and much used in cleaning the hair. This latter grass is the Andropogon schœnanthus.—*Gen. Med. Top, p.* 128. See Nardostachys ; Spikenard.

BALCONDA, in Long 78° 28' E. and Lat 18° 56' N.

BALDEO. See Krishna ; [illegible] ; Greece ; Sati.

BALDEVA, son of a prince of Mathura and nephew of Koonti, the mother of the five Pandu brothers. Baldeva was cousin of Krishna and fled with Yoodishtra from the battle field of the Mahabarata on the Jumna, into Saurashtra. After Krishna's death, Baldeva Yoodishtra went northwards, and it is supposed penetrated into Greece. Baldeva has been deified as the god of strength and is supposed to be the Hercules of the east and west. He is still worshipped as in the days of Alexander, his shrine at Buldeo, in Vrij, his club, a ploughshare, and a lion's skin his covering.—*Tod's Rajasthan.* See Bala Bhadra, Krishna, [illegible] Polyandry, Pandu.

BALD-UL-AJAM. See Ajam. Balad.

BALEARICA. See Crane.

BALEH-BALEH. Jav. A couch.

BALE of cotton weighs differently in various countries.

In America lbs.	440		In China lbs.	240	
„ Brazil	do	180	„ Bengal	do	300
„ Egypt	do	500	„ Madras	do	300
„ Turkey	do	350	„ Bombay	do	394

BALEIA-ITHI-KANI. Maleal. Zapania nodiflora—*Linn.*

BALEA. A genus of molluscs. See Mollusca.

BALEAN. See Kaya Balian.

BALEL, of Kashmir, Coriaria Nepalensis. See Tadrelu.

BALELA. Hind. Terminalia bellerica.

BALELA SUJAH, small black myrobalan, fruit of the Terminalia citrina.

BALENOPTERA. A whale or rorqual was stranded about 1836 upon Juggoo or Amherst

Island, S. of Ramu island. Each of the rami of its lower jaw measured 21 feet in length, minus an inch or two.—*Beng. As. Soc. Jour. No.* 4, *p.* 414. See Balæna.

BALEOKOURAS. See Kalian.

BALESAR. A sub-division of the Gujar tribe.

BALESHWAR, 19° 26′; 74° 10′, in the Dekhan, 10 miles S. of Sangamner, at the pagoda on the hill, it is 3,827 feet above Colaba Observatory.

BALESSAN. EGYPT. Opobalsam.

BALESWARA, a name of Siva. See Bal. Yavana.

BALFOUR, **EDWARD**, a Madras medical officer, furnished several articles to current literature. Editor of a Cyclopædia of India and of Eastern and Southern Asia, wrote on the influence of trees on the climate of a country: the Statistics of Cholera: the localities exempt from Cholera: the commercial products of the Madras Presidency: the Timber trees, Timber and fancy woods of Eastern and Southern Asia: On Cholera at Thayetmyoo in Madras *Quarterly Journal of Medical Science, Vol. VII. p.* 308. On vegetables for Europeans in Burmah. Ib. viii. p, 216. On typhoid remittent fever at Bangalore. Ib. IX. 285. On the health of Troops at Secunderabad. Ib. X. 261. On the Cantonment of Trimulgherry: In 1851 he instituted and till 1859 conducted the Government Central Museum, Madras, and in 1865 he formed the Mysore Museum at Bangalore. The Madras mahomedan Library owes its origin to him, and the introduction of English into the Madrassa-i-Azam. He published the Guldastah i-Suhn, or selections from the Persian and Hindustanipoets; published in diglot Hindustani, Tamil and Telugoo several editions a Statistical Map of the World. Translated and published Conquest's Midwifery and Tate's Astronomy. He was the Political Agent at the Court of the Nabob of the Carnatic, Persian and Hindustani Translator to Government, Commissioner for Investigating the Debts of the Nabob of the Carnatic, and Secretary to the Committees for the Great Exhibition of 1851, for the Paris Exhibition of 1855, and for the Madras Exhibitions of 1855 and 1857.

BALFOUR, Dr. Francis, Bengal Service, wrote on the Arabic poets—*As. Res., Vol. ii.* 805. On tides of the barometer, 1794.—Ibid, Vol. iv. 195. On the effects of Sol-lunar influence on fevers.—Ibid, Vol. viii. 1. On the Persian and Arabic Grammar.—Ibid, 889, and published the Insha-i-Harkern.—*Dr. Buist's Catalogue.*

BALFOUR, Major General George, C. B., an officer of the Madras, and afterwards of the Royal Artillery. He served with the Malacca Field Force in 1832-33; as Brigade Major in the campaign against Kurnool in 1839 and was present at the taking of Zorapore on the 18th October 1839; served as Staff Officer of the Madras Forces in the war against China, in 1840-1-2, and was present at the capture of Chusan on the 5th July 1840; Canton 25th May 1841; Amoy 26th August 1841; Chusan 1st October 1841; Chinghae, 10th October 1841; Ningpo, 13th October 1841; Ningpo 10th March 1842; Tsekee, 15th March 1842; Segaon, 15th March 1842; Chapoo, 18th May 1842 Woosung, 16th June 1842; Shanghai 19th June 1842; Chin-keang-koo, 21st July 1842; Nankin, August 1842; Yang-tse-kiang river September 1842; and received the Chinese medal. He was consul at Shanghai for many years, was employed as a Commissioner on the Madras Public Works Establishments, but his last labours in India from 1859, to 1862 were as Chief of the Military Finance Department of India. Towards the beginning of 1859 the last embers of the mutiny were just being trodden out; peace had been restored, but with peace had not come prosperity, for the British Empire in India had been saved from the perils of revolt and rebellion, to be compelled to struggle a second time for life against the dangers of bankruptcy, as the sepoys' revolt had burthened India with a debt, scarcely less to be dreaded than the dangers it had escaped. The large powers which, during the emergency had of necessity been entrusted to departments, and to Divisional and Station Officers, were still being exercised. Extra establishments, no longer necessary were being kept up; contracts were being renewed at war prices; and from the nature of the circumstances, the army was the chief source of expense. At this juncture Colonel Jameson, of the Bombay Army, Colonel Burn of the Bengal Army and Colonel Balfour, C. B. of the Madras Artillery were formed into a Commission on the military establishments of the country. They first examined into those of Bombay then visited Madras and finally reached Calcutta in the beginning of 1860, from which, before many months were over, Colonels Jameson and Burn left in ill health leaving Colonel Balfour to the entire work. A Military Finance Department for final control and audit was then formed, of which he was appointed chief, and from that date the whole of his efforts were directed to bringing the army military establishments down to the peace scale. The numerical strength of the army sanctioned on the restoration of peace after the revolt, was for Bengal 1,13,095; for Madras, 55,125; for Bombay, 39,270, or total of 2,07,490; of whom 71,121 were Europeans and 1,36,369 Natives. Much of the decrease which he effected in the charges, was obtained by necessary reductions; In the account establishments, alone, of the Bengal Commissariat and Pay Departments, the annual saving effected by beneficial changes amounted respectively to £7,000 and £5,000, total £12,000. Prior to the revolt of 1857, the military charges of India were £11,500,000. The European army had been lower than in any year since 1816; but, by the beginning of 1859, this charge had risen to £21,000,000 when the Military Finance Commission was established. The military estimates for 1860-61, including the carriage department were reduced to a trifle over £16,000,000, and the Indian Revenue was £39,000,000. But in the following year Mr. Laing, the Financial Member of the Supreme Council, intimated that the Military Finance Department had revised the estimates with great care, and they were stated at £12,850,000 or £2,479,000 lower than in 1860-61. And Mr. Laing further added that £12,199,242 was the estimated cost of the military establishments as fixed permanently for India, only that, in the year 1861-2, reduction of items costing £600,760, could not be completed. The 1861-62 estimate, therefore, was to that amount higher than the estimated permanent expenditure, so that the actual diminution from 1860-61 to 1861-62, in the cost of the army, was £3,220,000. It was further expected that the annual military charges would be brought down to twelve millions in India and two millions in Britain. Mr. Laing when submitting his budget estimates and explaining the changes in operation, stated that the future history of India would not be complete, without mentioning the successful labours of Colonel Balfour, and the most recent writer, the Hon'ble Mr. Thurlow, who, as Private Secretary to Lord Elgin, had rare opportunities of ascertaining and judging of events, at pp. 29 and 30 remarks that when the Military Finance Department was established after the revolt of 1857, in order to ensure economy in military expenditure, General, then Colonel, Balfour was selected for the sole controul of this department, under the personal authority of Lord Canning. He was, adds Mr. Thurlow, a man of obstinate ability, and was armed to the teeth with power and promise of support. He conducted the work of pruning with a knowledge of detail only exceeded by his zeal in execution, and Lord Elgin wrote on Colonel Balfour's return to Britain, that a man who, right or wrong, had saved his country several millions well [illegible] some reward. From the embarrassed [illegible] of the finances, the condition of India, at [illegible]; was critical: and when the task was completed; the Government of India bore ample testimony to the important services which resulted from his labours The Commission first assembled on the 18th July 1859, and early in 1860, Colonel Balfour was left alone, but so early as 1861, Sir Charles Wood showed that the reductions ordered by the Government of India, were expected to amount in the year 1860-61, to £2,500,000 which, with those of the previous year would make an estimated saving in military expenditure alone of £6,000,000, and he added that if the reductions for 1861-62 were equal to those of 1860-61 and the produce of new taxes came up to the estimate, the expenditure and income of 1861-62 would be balanced—When the accounts were made, the deficit of 1861-62 was only £50,678. To admit of an examination of the results of Colonel Balfour's labours the following tabular statements are given showing the increase and decrease of the expenditure during his Chief-ship of the Military Finance Department,

Years ending April 30	In India. Revenue.	In India. Expenditure.	In India. Deficiency.	Home charges.	Net deficiency.
	£	£.	…	£.	£.
1857-1858	31,706,776	35,078,528	3,371,752	6,162,043	9,533,795
1858-1859	36,060,788	43,590,794	7,530,006	7,466,136	14,996,142
1859-1860	39,705,822	44,622,269	4,916,447	7,239,451	12,155,898
1860-1861	42,903,231	41,529,973	…	5,394,646	4,021,385
1861-1862	43,829,472	37,215,756		6,634,344	50,628
					Surplus.
1862-1863	45,143,752	36,860,806		5,515,601	S. 936,925
1863-1864	41,613,032	38,087,772		5,446,913	S. 78,347
1864-1865	15,652,897	38,246,926		7,599,491	D. 193,610
1865-1866	48,935,220	40,615,189		,519,540	S. 2,800,491
1866-1867	46,752,800	41,803,400	…	5,022,200	
1867-1868	48,429,641	49,437,339	1,007,695		

Military Charges.

	1858-1859	15,570,310
	1859-1860	21 081,339
	1860-1861	20,909,556
	1861 1862	13,681,900
	1862-1863	12,764,335
	1863 1864	12,697,069
Calculated	1864-1865	13,327,260
	- -	13,909,412
	1866-1867	13,181,210

Martin's Statesman's Year Book 1864, 5, 6, 7, 8 and 9.

It will be observed that the military expenditure in the year 1858-59 was 15½ millions Sterling It rose to 21 millions in 1859-60. But from that year Colonel Balfour's labours began to be felt.—the military charges were reduced to £20,909,566 in 1860-61—to £13,681,900, in 1861-62, and to £12,697,069 in 1863-64. Since his return to Britain, he was, in 1866, employed on the Recruiting Commission in England. His voluminous and minute evidence before Lord Strathnairn's Committee led to his nomination in 1867 as Assistant to the Controller in-Chief at the War Office, to assist Sir Henry Storks in the re-organization of the War Office Departments, where he was remarkable for energy in meeting difficulties and indomitable perseverance.—*Martin's Statesman's Year Book 1864 to 1869.* *Thurlow's Company and the Crown, pages 29 and 30 West's Sir Charles Wood's Administration, London 1867. Home News, 19th Feby.* 1869, *p*, 33. *Madras Army*

List. Minutes of Lord Canning, Sir Bartl Frere, 11th March 1862, *of the Hon'ble S Laing and Sir Cecil Beadon, 7th April* 1862 *of Sir R. Napier, 9th April* 1862 *and Earl of Elgin and Kincardine 10th April* 1862.

BALGHAR. HIND. Russian leather.

BALHARA, According to Elliot, (*Elliot's Hist. of India*) an ancient kingdom mentioned by the merchant Sulaiman. The Balhara seem to represent the Ballabhi sovereigns of Ballabhipura who were succeeded by the Bala princes of Anhalwarra Pattan. Their territories included the country of Lata, or Larike, on the gulf of Cambay. According to Colonel Tod (*Tod's Travels, p.* 147-48.) Balhara was a title assumed by the successive sovereigns of Saurashtra. He says the earliest of the tribes which conquered a settlement in the peninsula of Saurashtra was the Balla, by some authorities stated to be a branch of the great Induvansa, and hence termed Balica-putra, and said to have been originally fromBalica-des, or Balkh, the Bactria of the Greeks. The chief of Dhank is a *Balla.* The Balla pays adoration almost exclusively to the sun and it is only in Saurashtra that temples to this orb abound ; so that religion, tradition as regards their descent, and personal appearance, all indicate an Indo-Scythic origin for this race, and in order to conceal their barbarian (*mhletcha*) extraction, the fable of their birth from Rama may have been devised. The city of Balabhi, written Wulleh in the maps, and now an inconsiderable village, was said to be twelve coss, or fifteen miles in circumference ; there is a Sun-temple at Baroda, dedicated to Surya Narayana and in Col. Tod's time, was the object of worship of the prime minister of the Guicowar, who was of the Purvoe caste, descended, from the ancient Guebre. There is also, a Sun-temple at Benares.—See Balabhi, Bednore, Inscriptions, Kalian Mewar.

BALHARY, a town in Long. 91° 49' E. and L. 23° 26' N.

BALI, in all peninsular India and in Ceylon, in the religious rites of the people, means a sacrifice, and their sacrifices are performed to local deities, to earth and air deities, to evil spirits, to the manes of deceased ancestors and to the hindu deities Siva, Vishnu, their consorts and incarnations. Bali is the word used in Ceylon, to express the worship of the heavenly bodies. The victim sacrificed is generally a cock, and Baliya are clay images, supposed to represent the controlling planet of the individual, and are destroyed at the conclusion of Bali ceremonies. In India, Bali, Bali Akhi, Bali-Dan, and Rakta-Bali S. are sacrifices of flowers, animals and other articles offered to an idol. Also, food offered to created beings, in small quantities thrown up into the air. In Canara, a woman by eating of Bali-akhi food, assumes the profession of a prostitute. The gifts to Vishnu are rice, flowers, curds, fruits, but to Siva and Durga are goats, sheep and buffaloes.—*Wilson.* See Sacrifices, Basava, Deva, Dasa, Morli, Jogin.

BALI. SANS. From Bala SANS. strength.

BALI, an island in the Eastern Archipelago. According to Mr. Earl, Bali Island, continues to indicate its Indian origin, and, with a small portion of Java, the Battas in Sumatra, the Philippine Islanders, the Dyaks of Borneo and the rude tribes of the interior of the Malayan Peninsula, exhibit hindu elements, and their religion may be styled a degraded hinduism. The Balinese entertain great aversion to a maritime life, and are more rarely to be met with at the European ports than the natives of the other islands to the eastward. They are fairer in complexion, stouter in frame, and more energetic in their dispositions than the Javanese, and in appearance and dress bear a great resemblance to the natives of Siam, from whom it is probable that they are descended. The entire population of Bali, amounting to about one million, profess the hindu religion, and the burning of widows amongst them is carried to an extent unknown even in continental India. The slaves of a great man are also consumed upon his funeral pile, and when the immense annual loss of life produced by these frightful practices is considered, it is surprising that the sland possesses so large a population. The widows and some slaves of Rajahs burn with their husband's corpse, but other widows burn or are dispatched with a kris. Captain Keppell mentions that Bali is the only island n the whole Archipelago where the two great forms in the Indian religions—the rahminical and the buddhist exist together undisturbed. The Balinese are an independent, nd comparatively civilized race, and very ealous of the encroachments of their powerful eighbours : the consequence is that Bali has been the scene of recent wars ; in the first the Balinese had some advantage. It has inland akes, or reservoirs of water, situated several thousand feet above the level of the sea. These akes all contain excellent fresh water, and are said to have tides whose rise and fall correspond with that of the sea. This is curious if true. Its surface is highly cultivated and is divided nto small patches for irrigation. Its population is said to be 700,000 or 480 to a square mile. Bali, Borneo, Java, Timor, the Philippines, the Moluccas and New Guinea possess almost similar climates, but there are great differences in their animal productions. In Bali are the barbet, fruit thrush and wood-pecker. In Lombok, the cockatoo, honey-sucker, and brush turkey. In Java and Borneo, are many kinds of monkeys, wild cats, deer, civets and many varieties of squirrels. In the Celebes and Moluccas the prehensile tailed cuscus is the only terrestrial animal seen except pigs and deer. In the western Archipelago are the wood-pecker, barbet, trogon, fruit thrush and leaf thrush, but to the eastward these are unknown and the lori and honey-sucker are the most common. But the natural productions of Borneo, Java and Sumatra, have a considerable resemblance. Sumatra has the Indian elephant, the tapir and rhinoceros; Borneo has the same elephant, and tapir; one of the Javan rhinoceros is different, but another occurs in Asia and the smaller mammals are generally the same in the three Islands. The fauna of Borneo and Celebes differ extremely, and this difference continues to the south, the line of separation passing between Bali and Lombok, though these two islands are only fifteen miles apart.—*Earl: Keppel's Ind. Arch., Vol. ii. pp.* 143-386-389. See India, Inscriptions, Siam, Sapi.

BALIBANG, in Long. 83° 17' E., and L. 27° 47' N.

BALI LABOGEE. See Lombok.

Balibhi. See Balabhi. Inscriptions. Junagurh.

BALICA-RAE, a branch of the lunar race. Colonel Tod claims to have discovered the sites of several ancient capital cities in the north of India; of Soorpoor, on the Jumna, the capital of the Yadu; of Alore, on the Indus, the capital of the Soda; of Mundodri, capital of the Purihara; of Chandravati, at the foot of the Aravulli mountains; and Balabhipoora, in Guzerat, capital of the Balica-rae the Balhara of Arab travellers. He imagines that the Balla rajpoot of Saurashtra may have given the name to Balabhipoora, as descendants of *Balica*, from Sehl of Arore. The blessing of the bard to them is yet, *Tatta Moottan-ka Rao*, 'Lord of Tatta and Mooltan, the seats of the Balica-putra: and he deems it not improbable that a branch of these, under the Indian Hercules, Bala Ram, who left India after the Great War, may have founded Balich, or Balkh, emphatically called the 'Mother of Cities.' The Jessulmer annals assert that the Yadu and Balica branches of the Indu race ruled Khorassan after the Great War, the Indo-Scythic races of Grecian authors.—*Tod's Rajasthan, Vol. I, p.* 42.

BALI-PRATIPADA, a hindu festival in commemoration of king Bali being sent to Patal, held about the last days of October. It seems to relate to some great war against the ancient races of India.

BALI-KOMMA. Tel. Opilia amentacea, *R. ii.* 87.

BALISTES, the File fish of the South Seas.

BALIYUS, a common term in the Turkish and Persian dominions, for a consular functionary. It is not an oriental word; and it is supposed that it is originally Venetian, possibly from the Greek basileus.

BALJA. Tel. A large tribe of Sudras, scattered through Telingana. A few of them are foot soldiers, but the majority are occupied in agricultural labour: a Balja man is Balja-vadu, plural Balja wanlu.

BALJAWAR. Lieutenant Wood states that at Baljawar, one day's journey north of the Oxus, is a lead mine, so rich, that the people who work at it for two months in the year are said to be able to live on the produce the remaining ten months, and that in the immediate vicinity of this is a large hill, called the Koh-i-meeriah, from which is extracted a coal of a good quality, much resembling the Bovey coal of England, and used as firing by the inhabitants of the neighbourhood. A specimen of the coal, with a few details respecting the formation in which it occurs, were transmitted to Captain Burnes. Silk is a commodity at present produced in abundance, and which could be cultivated, if desirable, to an almost indefinite extent. The vale of the Oxus seems peculiarly adapted to its produce, and the best specimens in this market uniformly come from Koubadian and Huzrat Imam, on its north and south bank. The silk of Bokhara is spoken of as being still better.—*Papers. East India, Cabul and Affghanistan, p.* 186.

BALKASH, a lake of Central India. See Visvamitra.

BALKEES, the Queen of Sheba. See Saba.

BALKEES, who succeeded her father Hodhad, in Yemen, was properly named Balkama or Yalkama. Her existence has given rise to numerous fables, and amongst others that she was the Queen of Sheba who married Solomon. This Balkees lived about the commencement of the Christian era, and she repaired or consolidated the dam of Mareb.—*Playfair.* See Balak. Samarcand.

BALKH is in Lat. 36° 48' N. is the ancient Bactria and is about 200 miles to the N. W. of Cabul. The Province of Balkh, was formerly included in Khorassan. It is bounded on the N. E. by the Oxus, E. by Koondooz, W. by Khorassan and S. W. by the mountains of Hazara and the independent state of Mymuna. To the S. E. the country is cold and mountainous; but the N. W. parts of it are flat, sandy, and exceedingly hot in the summer. It is tolerably well-peopled by Usbeck, Afghan, and Tanjet or Tajik, who partly dwell in villages, and partly roam with their flocks in search of pasturage. The Usbeck are simple, honest, and humane; but the Tanjet are a corrupt and dissolute race of men, addicted to vices. Balkh, is regarded by the Persians as the ancient source of religion and polite education. Balkh is now in the dominions of the king of Bokhara. Its ruins extend for a circuit of 20 miles around. By Asiatics, Balkh is named Amu-l-Bălăd, the mother of cities. It is said to have been built by Kaiamurz of Persia. It was conquered by Alexander and included in Bactria. In 1830, its population was only about 2,000. Balkh stands on a plain about six miles from the hills. Its climate is very insalubrious. It is well irrigated by means of aqueducts from a river. It is built on a gentle slope which sinks towards the Oxus about 1,800 feet above the sea. Mr. Moorcroft is interred outside its walls, but he died at Andkhui. It has repeatedly sent out conquerors, and been conquered. Arsaces I is described by some as a native of Sogd; by others as of Bactria, but by Moses of Chorene, as of Balkh, and Moses adds that the dynasty was called Balkhavensis or Pahlavian. He used Greek only on his coins, and in his public letters and correspondence only, with the head of the sovereign on one side. Only one coin has a lingual inscription. The last of the dynasty, Arsaces Artabanus, became involved in a war with Rome, but was ultimately slain at Balkh, by one of his Parthian officers, Ardeshir Babekan, or Artaxerxes.—*Kinneir's Geographical Memoir, p.* 187. *Chat-field's Hindustan, p.* 31; *Kinneir's Geographical Memoir, p.* 187. See Greeks of Asia; Kabul, pp. 435-437; Persian kings; Arsacidæ; Cush, India, p. 309; Kabul, pp. 437,438,440; Koh, Mongol, Persian kings, Visvamitra, Uzbek. Kelat, p. 495.

BALKHAVENSES OR PAHLAVIAN. See Kabul.

BALKO-BANSH. BENG. Dendrocalamus balcooa.

BALLA, a Scythic race formerly ruling in Saurashtra. All the Rajput genealogists, ancient and modern, insert the Balla tribe amongst the Rajculas. The byrd, or 'blessing' of the bard is "Tatta Mooltan ca rao," indicative of their original abodes on the Indus. They lay claim, however, to descent from the Sooryavansi, and maintain that their great ancestor, Balla or Bappa, was the offspring of Sava, the eldest son of Ram; that their first settlement in Saurashtra was at the ancient Dhank, in more remote periods called Mongy Puttun; and that, in conquering the country adjacent, they termed it Baleakheter (their capital Balabhipoora), and assumed the title of Balla-rae. Here they claim identity with the Gehlote race of Mewar: nor is it impossible that they may be a branch of this family, which long held power in Saurashtra. Before the Gehlotes adopted the worship of Mahadeo, which period is indicated in their annals, the chief object of their adoration was the sun, giving them that Scythic resemblance to which the Balla have every appearance of claim. The Balla on the continent of Saurashtra, on the contrary, assert their origin to be Induvansa, and that they are the Balica-pootra who were the ancient lords of Arore on the Indus. It would be presumptious to decide between these claims; but Colonel Tod ventures to surmise, that they might be the offspring of Sehl, one of the prince of the Bharata who founded Arore. The Cattis claim descent from the Ballas an additional proof of northern origin, and strengthening their right to the epithet of the bards, "Lords of Mooltan and Tatta." The Ballas were of sufficient consequence in the thirteenth century to make incursions on Mewar, and the first exploit of the celebrated Rana Hamir was his killing the Balla chieftain of Choteela. The present chief of Dhank is a Balla, and the tribe yet preserves importance in the peninsula.—*Tod's Rajasthan, II. p.* 112. See Balhara.

BALLA, several places in India, of this name, respectively, in Long. 72° 28' E. and L. 25° 48' N.; in Long. 89° 43' E. and Lat. 26° 48' N.; in Long. 89° 10' E. and Lat. 26° 20' N., and a pass in Long. 89° 20' E. and Lat. 26° 51' N.

BALLA BAGH. See Jelalabad.

BALLABHA. See Balabha. Balhara. Inscriptions, p. 391.

BALLABRAI DROOG, in Long. 75° 29' E. and Lat. 13° 8' N.

BALLADS, those in the third book of the Rig Veda, are all attributed to Visvamitra or his successors.—*Bunsen.*

BALLAI OR BALLATI, HIND. The shepherd of the village community of India, who drives the village-flock to the common pasturage; and, besides his *seerano* has some trifling reward from every individual. It is his especial duty to prevent cattle-trespasses.—*Tod's Rajasthan, Vol. II. p.* 596. *Bara Ballaiti.*

BALLAJI, an incarnation of Vishnu with shrines at Punderpoor and Tripaty. The brahmans of Poona gave Major Moor the following particulars of the Avatara of Vishnu, which they call Ballaji. "In Sanskrit this Avatara is named Venkateish; in the Carnatic dialect, Terpati; in the Telinga country and language, Venkatramna Govinda; in Gujerat, and to the westward, Talkhur, or Thakhur, as well as Ballaji: the latter name obtaining in the neighbourhood of Poona, and generally through the Mahratta country. This incarnation took place at Tripaty, in the Carnatic, where, in honour of Ballaji, is a splendid temple, very rich, and much respected. Formerly, it was under control of the British who were said to derive from it and its dependencies an annual revenue of one lac and twenty-five thousand (1,25,000) Rs., about twelve thousand pounds sterling. It is related, that all acts of this temple, to which an extensive district is attached, are carried on in the name of Venkatreddy-dessye, another appellation for this Avatara. Brahmans and other hindus in the Carnatic, are sometimes sworn in the name of Venkatesh. The temple is built of stone, covered with plates of gilt copper, and is held in high estimation; said, indeed, not to be of mortal manufacture. Pilgrimages are made to Tripati, however, from all parts of India, especially from Gujerat, the trading inhabitants of which province, of the tribes of Bania and Battia, and others, are in the habit of presenting five or ten per cent. of their annual profits to this temple, whose deity appears to be the tutelary patron of traffic: rich gifts and votive offerings are likewise received from other quarters. In this avatara, or, as being of inferior importance, more strictly, perhaps, called avantara, (see Avatar) Vishnu, in his form of Ballaji, was attended by his Sacti, Lakshmi, and by another wife, Satyavama, and they are generally seen with him, as well in his avatara of Krishna, with whom Satyavama appears to have been a favourite, we find her with Lakshmi, in immediate attendance on her divine spouse in his paradise of Vaikant'ha, as well as participating with her favoured associate in promoting the tranquillity of the Preserver, while reposing on Sesha, in Chirasamudra, or the sea of milk.—*Moore's Hindu Pantheon*, p. 415. See Tripati.

BALLAKHOOR, a river near Purneah.

BALLAM or **VALLAM**, the great canoe of Ceylon, usually made from the Angelly, Artocarpus integrifolia or Ahir-suta. See Boat.

BALLAST. Eng. Dut. Ger. Swed.

Thim-bo	Burm.	Savorra	It.
Woon-gan	,,	Tulak-bara	Malay.
Baglast	Dan.	Lastro	Port.
Lest	Fr.	Balast	Rus.
Niram	Hind.	Lastro	Sp.
Nilam			

Heavy substances, iron, stones or heavy cargo placed in ships, holds to trim and steady the ship.

BALL COAL. The coal of Burdwan, which occurs in the form of rounded masses, was so termed by Mr. Piddington.

BALLI, a Tamul Raja of Mahabalipur in the Carnatic.

BALLIAH, three towns in India, viz., in Long. 84° 8' E. and Lat. 25° 45' N., a second Ballia in L. 86° 19' E. and L. 21° 41' N. a third in Long. 88° 0' and L. 22° 30' N.

BALLIAPATAM RIVER, on the Malabar Coast, 8 miles from Mount Dilli, is only navigable by boats.

BALLIAPUTTAM, or **BALORT**, in Long. 75° 24' E. and Lat. 11° 57' N.

BALLIE, a river near Billaspoor in the Umballa range.

BALLOON VINE. Eng. Syn. of Cardiospermum halicacabum.

BALLOOT. Hind. Pers. Galls. Gallnuts.

BALLORA, the name given by the people to the caves known to the British as Ellora. It is also called Yerula.

BALLOTA NIGRA W. Black Horehound is the Balloté of Dios-corides and the Ballota of Pliny B. Hispanica, Linn. Has been introduced into India.—*Voigt*, 461.

BALLS AND BATS. These materials for the cricketers are imported wholly from England, and in the four years, 1852 to 1856, Madras received to the value of Rs. 13,938.

BALLUSU-KURA. Tel. Canthium parviflorum.

BALM, a name applied to several vegetable products. Melissa officinalis of the S. of Europe is the Arabian or common balm, Calamintha nepetha is field balm; and C. officinalis is the mountain Balm. All these are natives of Great Britain, and only one M. officinalis is known in India. The resin called Balm of Gilead, noted in Scripture, is obtained from the Balsamodendron Gileadenese, which is a synonym of B. Opobalsamum and this resinous product is also known as Balm of Mecca. *pers. East* land the plant known as Balm of Gile[illegible] Abies Balsamea.—*Hogs. Veg.* [illegible] p. 576. See Evergreens, Abies Balsame[illegible] Melissa Officinalis, Balsamodendron.

BALM. Melissa officinalis, *Var.*

Baklat ul Faristum	Arab.	Badranj buyeh.	Pers.
Mekkah Sabsah	Duk.	Parsi kunjam	
Arabian balm	Eng.	,, koray	Tam.
Tzeri	Heb.		

The balm is alluded to in Gen. xxxvii, 25 xliii, 11; Jer. viii, 22; xlvi, 11; and li, 8.; and in Ezekiel xxvii, 17. It is a pot herb, the young tops and leaves are used in cookery, and, when dry, as tea; raised from seed cuttings, &c. Like all pot herbs it should be cut, to dry, when in flower, and dried in the shade.—*Jaffrey. Ainslie.*

BALM OF GILEAD. See Gums and Resins.

BALNA. Mahr. A woman's name, meaning little one.

BAL-NATH, the deity worshipped by the Saura races in Guzerat identical with the Syrian Bal. The Bul-dan, or sacrifice of the bull to Bal-nath, is on record, though now discontinued amongst the hindus. See Baal; Bal.

BALO. Jav. Lac.

BALOCH. See Baluch.

BALOLO, a name of Skardo. See Skardo.

BALOO. Sans. Sandy. Baloo-desa would be the Persian Regist'han, or desert, very applicable to Arabia Deserta.

BALOOK BALOOK in Long. 121° 50' E one of the westerly of the Philippine Islands, is a considerable island, with sloping land at its northern part.

BALOR HILLS. Fossils are found in these hills. See Balti. Skardo.

BALOTTA. See Kol.

BAL-RAKSHA. HIND. Gnaphalium.

BALOUJE. See Kelat.

BALSAM, a flowering plant, of the genus Impatiens, 76 species of which are known to occur in India and China. Towards the close of the rains, the whole of the Western Ghauts of India, the Syhadri range, are covered with the balsam, the valves of the ripe fruit opening at the slightest touch and expelling their seed, from which peculiarity, the term Impatiens has been given to the genus. It is a pretty sight to see the hills for miles clothed with flowering balsams. Balsams, on the Khasia Hills, are next in relative abundance (about twenty-five), to the orchids, both tropical and temperate kinds, of great beauty and variety in colour, form and size of blossom. In India, Balsams require to be sown thinly in a box or seed pan; after the plants are 2 or 3 inches high they should be transplanted out singly in well manured soil, if to be grown in pots, they should be put in small sized ones at first and re-potted into larger, when requisite, which will be, when the small pots are filled with roots. The soil best adapted for culture is, 2 parts strong loam approaching in appearance to brick earth, and 2 parts well decayed manure, with a little lime, which will aid in preventing mildew, so destructive to the Balsam: the pots should be well drained and the plants must never be neglected in watering; seeds may be sown every month.—*Hook. Him. Jour.* 11. 281. *Riddell's Gardening. Voigt.* 189-190. See Impatiens.

BALSAM. ENG. GER.

Balsem...	...DUT.	Balsamo...	...IT. SP
Baume...	...FR.	Balsamum...	...LAT.

This term like the English balm, is given to the products of several vegetables, not one of which grow in South Eastern Asia, although several of them are imported into India for medicinal purposes, particularly, Balsams of Copaiba, Peru, and Elemi. Several balsamic substances are obtained in India, and Western Africa, such as Storax and Liquidamber from the genus Liquidamber, Frankincense, olibanum and Bdellium are from species of Boswellia. Myrrh and Balm of Mecca are from species of Balsamodendron. The word Balsam, according to Calmet, is supposed to be derived from Baal-shemen, Royal oil. Brazilian Elemi, called also, Accouchi Balsam; is a resin, it is obtained from the Icica heterophylla, Balsam apple is the fruit of the Momordica of Syria and is applied to wounds. Canada Balsam is from the Abies Balsamea balm of Gilead fir. Carpathian Balsam from two species of pine. Copalm Balsam is from the Liquidambar styraciflua. Garden Balsam is the flowering plant of the genus Impatiens. Hungary Balsam is from the Pinus mugho. Balsam of Copaiba is from several species of Copaifera of the West Indies and tropical America. Balsam of Peru is supposed to be got from the Myrospermum Peruiferum of Central America, and the White Balsam of commerce is made from it. But the term White Balsam or Myrrh Seed or quinquino is also obtained from the M. Pubescens.—*Voigt.* 189, 190, 301. *McCulloch's Dictionary. Faulkner. Hog. Veg. King.* 207, 253. See Liquidamber altingia.

BALSAMARIA INOPHYLLUM. LOUR. Syn. of Calophyllum inophyllum.

BALSAMIER DEKLA MEQUE. FR. Opobalsam.

BALSAMO. IT. SP. Balsam.

BALSAMODENDRON, a genus of plants of the natural order Burseraceae of Kth., three species of which, B. Berryanum; B. Roxburghi and B. Agallochum, occur in India. Royle, in his Himalayan Botany mentions that the Balsamodendron (*Amyris*) Gileadense or Terebintheae, or Balsam of Gilead-tree, known in the East by the name of Balessan, has long been accounted one of the riches of Arabia, whence, or from Abyssinia, its native country, according to Bruce, it was at an early period taken into Syria. It has also been introduced into the Botanic Garden at Calcutta as well as into the Peninsula of India. B. Opobalsamum, to which M. Kunth more particularly refers the Balessan of Bruce, and the figure of Prosper Alpinus is perhaps only a variety of the former, affording a similar product. B. Amyris, Forsk. Kataf and Kafal, are also nearly allied if not identical species; both are natives of Arabia, and both give out a most fragrant balsamic odour. The wood of B. kafal is an article of considerable commerce, according to Forskal, and is that probably which is sold in Indian bazaars as the aod-i-balessan. Forskal also mentions that he had heard of two other trees, which are like these; one the shujrut-ul-murr, or myrrh-tree, and the other called khudjush.

Though there does not appear any reason for supposing that myrrh is produced in any part of India, yet there is a substance having the closest resemblance to it which is imported into and known in Europe as Indian myrrh. This is also said very closely to resemble, if indeed it all differs from Bdellium; it is probable, therefore, that it is what in India is known by the name of googul (mooql of the Arabians), as it forms the Bdellium of commerce, and resembles an inferior kind of myrrh, as indeed Bdellium is frequently described to be. That it is also the Bdellium of the ancients would appear from the Persian authors giving budeyoon and madikoon as the Greek name of mooql.—Dr. Royle was satisfied that this must be the Amyris commiphora of Dr. Roxburgh. (Fl. Ind. 2. p. 244) of which he gives googula as the native name. There is, however, a substance famed in ancient and used in modern times, produced also by this group, and known as olibanum or Thus looban and koondur of the natives of India. Under the latter name, it is described by Avicenna, evidently referring to the λιβανος of Dioscorides, who mentions both an Arabian and an Indian kind. The latter Mr. Colebrooke has proved to be the produce of Boswellia serrata, Roxb., (B. thurifera, Colebr.) Salai or saleh of the hindoos, common in Central India and Bundlecund, especially about the Bisrumgunge ghaut. It is probably also produced by B. glabra, which has the same native name, and though extending to a more northern latitude, is distributed over many of the same localities. It is common in the low hills above Mohun Chowkee. To this kind according to Dr. Ainslie, the term googul is applied by the Telugu people. The resin of both species is employed as incense in India Central India alone furnishes the greatest portion of the Indian olibanum of commerce; as it is chiefly exported from Bombay. From the affinity in vegetable products between parts of Arabia, Persia, and India, it is not improbable but the genus Boswellia may extend into those countries and afford that which is known as Arabian Olibanum. Canarium Benghalense is another plant of this tribe, which according to Dr. Roxburgh, exudes an excellent clear amber—coloured resin, not unlike copal. In America, as in India, several valuable resins, as Elemi, Carana, Chibow, and two or three kinds of Tacamahaca are afforded by plants of this tribe. —*Royle's Ill. Him. Bot. p.* 177. *Voigt. p.* 149.

BALSAMODENDRON AFRICANUM. See Myrrh.

BALSAMODENDRON AGALLOCHA. *W. & A.*

Balsamodendron Roxburghii.—*Arn.*
Amyris Agallocha.—*Roxb.*
„ Commiphora.—*Roxb. ii.* 244.
Commiphora Madagascarensis—*Jack.*

Googala ...... SANS. HIND.

This small tree grows to the East and N. E. of Bengal in Sylhet, Assam and the Garrow Hills. Dr. Royle supposes this to produce the gum bdellium of commerce and perhaps of Dioscorides, but Bdellium is got also from B. Makal and B. Africanum. The whole plant, while growing is considerably odoriferous, particularly when any part is broken or bruised and diffuses a grateful fragrance like that of the finest myrrh, to a considerable distance around. —*Voigt.* 149, 150. *Roxb. ii. p.* 244-5. *Fl. Andh.*

BALSAMODENDRON BERRYANUM *Arn.*

Protium Gileadense, *W. and A.*
Amyris Gileadensis, *Willde. Roxb.*

Akuila-semen-roumi ...	ARB.	Balesan...... ...	EGYPT.
Roughau-balsan.	HIND. PER.	Balsam of Mecca.	ENG.
Balm of Gilead. ...	ENG.		

A large shrub or small tree, a native of Arabia, Ethiopia, and the East Indies, introduced into the Calcutta Garden in 1798. M. Fee ascribes to this tree three distinct products; Balsam of Mecca, a wood called Xylobalsamum, and fruits termed Carpo-balsamum. Tradition is rich in anecdotes relative to the origin of this balsam; the mahomedans affirm that it sprung from the blood of the slain in Mahomed's conflict with the tribe of Harb, and that the prophet used the balsam for the resuscitation of the dead. (*Fee.*) It is much used in medicine by the Hakims as a stimulant, tonic, and somewhat astringent remedy, and as an external application to indolent sores. It is also employed as a perfume and cosmetic. The Opobalsamum and Carpobalsamum require no particular notice. But they may be briefly described by mentioning that the best Opobalsamum was obtained from the greenish liquor found in the kernel of the fruit; the Capobalsamum made by expression from the fruit when at maturity; and the Scylobalsamum from a decoction of or by expression from the young twigs. A mixture of this balsam is made by rubbing together 8 ounces of acacia on white muslin and 2 drachms of Mecca balsam. It is much prized by the mahomedan physicians as a tonic stimulant, in doses of half to one ounce three times daily —*Beng. Phar. p.* 375. *O'Shaughnessy, page* 285.

BALSAMODENDRON COMMIPHORA. *W. and A.*, Syn. of Commiphora Madagascarensis. LIND. FL. MED.

BALSAMODENDRON GILEADENSE. See Gums.

BALSAMODENDRON MYRRHA. See Gums.

BALSAMODENDRON KATOF is mentioned by Forskal and the Balessan of Bruce is supposed to be the Opobalsamum.

BALSAMODENDRON MAKUL, according to Hog, p. 251 grows abundantly in Sind and India. It is a small stunted tree, from 4 to 6 feet high, into which incisions are made by a knife and the resin is allowed to drop on the ground.

BALSAMODENDRON MYRRHA. *Nees-ab Esen.*

Bola; Beola...	SANS.	Valatipolam ...	TAM.
Bol ...	„	Morr ...	ARAB.
Heerabol...	HIND „	Kerobeta, the plant,	Abyssinia.

Hoboli, the gum resin.

A native of Yemen, is a small tree with a whitish grey bark with rough abortive branches, terminating in spines. It yields the myrrh of commerce, the juice exudes spontaneously and hardens on the bark.

BALSAMODENDRON ROXBURGHIANUM.—*Wall.*

Protium Roxburghianum.—*W. and A.*
Amyris acuminata.—*Roxb.*

Mukul	... ARAB. PERS.	Raughan-i-turb	... PERS.
Aflatun	... ARAB. PERS.	Badliun	... SYRIAC.
Gugal	... HIND. PERS.	Kokul	...TAM.
Muli-ka-tel ?	HIND.		

A small tree, a native of the Moluccas. Its bark and all the tender parts of the plants on being bruised or wounded, discharge a small quantity of pale whey coloured liquid which possesses a fragrance, something like that of an orange leaf.—*Roxb. ii.* 266. *Voigt.* 150.

BALSAMODENDRON ZEYLANICUM. KUNTH. Syn. of Canarium commune. See Colophonia.—*Linn.*

BALSAMO DE TOLU. Sp. Tolu Balsam'

BALSAMO DE QUINQUINA. SP. Balsam of Peru.

BALSAM OF COPAIVA. See Dipterocarpus lævis.

BALSAM OF PERU.

Baume-de-Peru	... FR.	Balsamum peruvianum	... LAT.
Peru vianischer balsam	... GER.	Balsamo de quinquino	SP.

A resinous fluid, imported into India as a surgical application.

BALSAM OF TOLU.

Baumo de tolu	... FR.	Balsamo-de-tolu	... SP.
Tolutanischer Balsam	... GER.		

BALSAM TREE.

Abu-sham	... ARAB.	Balm...	...ENG.
Baal-shemen	... HEB.	Balsam. .	...ENG.

BALSAMUM. LAT. Balsam.

BALSAMUM PERUVIANUM. LAT. Balsam of Peru.

BALSEM. DUT. Balsam.

BAL SANTOSH, *Lit.*, child satisfying beggars who ask alms by calling these words. —*Wilson.*

BAL TAR. SANS. Borassus flabelliformis.

BALTI, a district of Central Asia in Long. 75 L. N. 35. Its chief town of Skardo is 7255 feet above the sea; Khapalu 8,285 feet above the sea. Balti, or Balty Yul is called Palolo or Balor by the Dards, and Nang Kod by the Tibetans. It is preserved in Ptolemy in Byltæ. The country is frequently called Skardo or Iskardo from the name of its well known fort and capital. Balti proper is a small table land, and with that of Deotsu, is about 60 miles long and 36 broad,—the mean height of its villages above the sea is about 7,000 feet. The Balti, are the people of Little Thibet, the Bylta of Ptolemy, though Tibetan in language and appearance, are all mahommedans, and differ from the more eastern Tibetans of Le, who call themselves Bhotia, or inhabitants of Bhot, by being taller and less stoutly made. Their language differs considerably from that of Le, but only as one dialect differs from another.—*Dr. Thomson's Travels in Western Himalaya and Tibet, p.* 247. *Latham's Ethnology. A. Cunningham.* See Byltæ; Kailas; Gangri Range; Kara-koram; Ladak, Tibet.

BALTIC. See India.

BALTI MOUNTAINS, a name of the Bulut Tag.

BALTIS, in Byblius called Beuth, or Behuth *i. e.* void of genesis, is identical which space, means the mother's womb, the primeval mother. The fundamental idea is that of the mother of life or source of life, which is the meaning of Havvah (Eve) of Genesis.

BALTI-YUL. See Balti.

BALU. HIND. A bear, BALU-Soor, the Indian badger, a species of Meles.

BALUCHISTAN comprises the extensive regions between the confines of modern Persia and the valley of the Indus. To the north, Seistan and Afghânistân, to the south, the ocean marks its boundaries. The first, or western section, comprises the sub-divisions of Nushkí, Khárân, Mushkí, Panjghúr, Keej, Kobuah and Jow. The second or maritime section, includes the provinces of Las, Hormára and Pessani. The third, or central section, is formed of the great provinces of Saháwán and Jhalawân, to which are added the districts dependent on the capital, Kalât, and which are intermediately situated between the two. The fourth, or eastern section, includes the provinces of Kach Gandâvá, Harand, and Dajil, the last two bordering on the river Indus. The Baluchistan territory from its position has been frequently traversed and Pottinger, Postans, Ferrier, Burton, Masson and Mohun Lal have minutely described it. But Dr. Cook (*in Trans. Bomb. Med. and Phys. Society,*) is the latest writer on this territory and tells us that the territories of the Khan of Kelat, comprised under the term "Baluchistan," are extensive and varied in character to no ordinary degree. They consist of lofty, rugged table land and level ground, and their climates exhibit the severest heat and the most intense cold. Viewing them geographically, they fall into the natural division of mountain and plain and may be considered under the following heads :—

1st.—The great central mountain range or table land running north and south which comprises the provinces of Sarawan, Jhalawan, and Lus.

2nd.—The mountain district extending eastward, inhabited by the Murree and Boogtee, situated to the south of Sind and Kutchee.

3rd.—The province of the plains, that is, the district of Kutch Gundava.

4th.—The province of Mekran, diversified by mountain and desert which stretches westward along the sea coast.

5th.—The great desert of Seistan to the north of the last named districts. The first of these great divisions, or rather the portion of this comprised under the name of the province of Saharawan may be thus described :

The mountainous table-land of Beluchistan extends from Cape Monze, on the south to the Afghan mountains north of Quetta, or from 25° to 30° 40' N. latitude, and is consequently about 340 miles in length.

In breadth it extends from the level plains of Kutchee eastward, to Nooshky on the borders of the Seistan desert, extending thus about 150 miles. But its breadth is by no means uniform: widest about the centre it gradually narrows southward, until, at Cape Monze, it is only a few miles broad. The height also varies in the same proportion; The greatest altitude is attained at Kelat about 7,000 feet, where the climate is European ; southward it rapidly decreases, until in the province of Lus, the elevation is but a trifling degree greater than that of Sind. It decreases also northward, the height of Quetta being about 5,900 feet.

This elevated district is composed of a succession of mountain ranges, which rising from the plains of Kutchee and valley of the Indus, tower one above the other in successive steps, until having gained their maximum, they subside in lesser and lesser ranges westward.

Their general direction is from N. N. E. to S. S W., and this uniformity of strike is wonderfully preserved throughout.

The mass is broken through at two points, viz : by the Bolan pass at its northern extremity, and by the Moola pass near Gundava. Here the ranges are twisted out of their original direction, and run in a N. N. W. manner. Through these two great channels the principal draining of the country is effected through the Bolan and Moola rivers.

Lying in the bosom of the mountains are numerous valleys, having naturally a like direction to the ranges between which they lie and varying in height according to their position ; so that almost any desired temperature and climate may be obtained from the sub-tropical one of Sind to the temperate one of Kelat. The district is naturally moderately well watered by rivulets and springs and rivers artificially so by wells and karezes, but there are, as might be inferred, no rivers of any magnitude.

The height ranges are clothed with trees (Junipers), which yield excellent firewood and durable timber for building.

The Valley of Quetta, or Shawl, is situated in 67 ° E. long, and 30 ° to 30 ° 20 N. lat. It is about 15 or 20 miles in length, and from 4 to 6 in breadth. It is bounded to the westward by the Chah'l Tan range, having a strike of S. S. W. by N. N. E.

The valley of Kanhee, is situated to the west of, and runs parallel to, that of Quetta, but extends further south. Its length is about 30 miles, and breadth 5 or 6. It is bounded on the east by the great Chah'lTan range, which separates it from the Valley of Quetta, and on the west by a parallel range of much less height, which, towards the north, separates it from the valley of Pishing.

The Valley of Moostung, is the principal and most extensive valley of the tract under consideration, and is situated to the south of the valleys of Quetta and Kanhee. It extends from about 29 ° 30' to near 30 ° N. lat., and its eastern boundary is nearly defined by the 67 ° of E. long. It is therefore about 40 miles in length, and varies in breadth from 5 to 8 miles, spreading out towards its upper end, and being gradually constricted towards its lower or southern extremity. It is bounded by parallel ranges, running N. N. E. by S. S. W. of medium height, probably from 500 to 800 feet. The range to the eastward is pierced by a pass leading to the Dasht-i-be-Daulat.

The Dasht-i-be-Daulat is an elevated valley or plain, situated to the N. E. of Moostung, at the head of the Bolan pass. Its breadth is from 15 to 20 miles. It has no towns or villages, but is occasionally dotted with the tomans of the Kurd tribe. Some portions of it are cultivated in the spring and summer months ; but during the winter it is a bleak, howling wilderness, destitute of trees, or any shelter ; the snow lies deep on it and cold winds whistle over its frozen surface. It is subject to the depredations of the Kaka tribe of Affghans, and caravans are frequently plundered by them. In the summer it is clothed with the fragrant Terk plant, and its surface diversified by fields of waving grain. It has no streams, but one or two wells have been dug and water obtained with some difficulty ; the cultivators are dependent on rain and heavy dews.

The Valley of Mungochar, is situated to the southward of that Moostung, more circular in form, and of much less extent ; destitute of trees, save a few stunted mulberries.

The Valley of Giranee, is situated south of Mungochar and is distant about 8 miles from Kalat.

The Valley of Ziaret, is situated to the westward of, and runs parallel with, the preceding, is of considerable extent, well watered, and cultivated.

Valley of Chappar, lies westward of Ziaret and extends from the vicinity of Kelat to that of Mungochar. It is therefore, of considerable size; it contains the village of Chappar and other small hamlets.

The Valley of Kelat, the most southern division of the province of Saharawan, and whose chief town is the capital of Beluchistan. The capital, Kelat, is situated about its centre, in Latitude 29 ° N. and long 66 ° 44 ° E.

Dr. Cook supposes 1st, that the original inhabitants of the country were hindoos, who fled from the conquering mussulmans who invaded Sind, Lus, and Mekran, A. H. 93; 2nd, that the Brahooee were Tartar mountaineers, who gained a footing in the country, and ultimately supplanted the former, becoming the ruling race; 3rd, that the Belooch came from the westward, but whether they were Seljuke Tartars, or Arabs from Aleppo, is a matter of doubt. Doctor Latham however classes the Belooch nation with the Persian, but considers them as a modified form. He says, "E and S. E. of the proper Persians of Kirman, come the Belooch of Beloochistan. If Rasks great theory be the correct one, which makes all the fragments of natives speaking a Tamulian dialect parts of one great continuous whole, which spread in the earlier ages over India and Europe, underlying the more recent system of Celtic, Gothic, Slavonic, and classical nations of Europe and the Indo-Germanic of India, as the primary strata in geology underlie the secondary and tertiary, but cropping out, or being exposed here and there, are the fragments of nations—of Laps, Finns and Basques in Europe, and of the Cutchwaree, Cohatee, Tudo, Ghond, Lar, and other mountaineers of India; if, adds he, I say, this theory be the correct one, then the Brahooee, being of the great Tamulian family, would be the aboriginal inhabitants of the country. Thus the Koord who inhabit the Dasht-i-be-Daulat, doubtless came from Kurdistan, probably amongst the followers of some mahomedan invader of India, and, perhaps, laden with spoil, preferring, on their return, to settle where they now are, rather than continue their march to their own country, made choice of the Dasht-i be-Daulat. Again many of the Jhalawan tribes are undoubtedly of Rajpoot origin; and until lately, the practice of infanticide prevailed amongst them.

There are two languages spoken in Baluchistan, the Baluchiki a hindi tongue of the Arian or Sanskrit stock in which the Persian, Sindi, Punjabi, and Sanskrit words recur and the Brahui, which belongs to the Scythic or Turanian or Tamulian stock. Near Bagwana is a cave in the rock filled with the dried mummy like bodies of infants, some of which have a comparatively recent appearance. The Sacæ, who formed part of Alexander's army, and whose country is stated by Wilson to have been that lying between the Paropamisan mountains and sea of Aral, still exist as a tribe of the Brahooees of Jhalawan. It is not improbable that they accompanied Alexander as far as the south of Sind, and returning with Craterus up the Moolla Pass, settled in their present position. The Beloochee also have by no means a pure and unbroken descent from any one source. Adopting Pottinger's theory, that the main body were Seljuk Tartars driven out of Persia, as he describes, yet undoubtedly many are of Arabic descent. Neither does he think with him that the Beloochees have no resemblance in any way to the Arabs. On the contrary, in many cases the outline of their physiognomy is very similar to that of the Arabs of Egypt and Syria; and if such a Belooch was dressed in the Arab dress, it would be exceedingly difficult to detect his nationality. Others are Sindians who fled to the hills on the invasion of their country by the mahomedans. The original hindoo inhabitants of the Murree and Boogtee hills were driven out by their present occupants, but the natives of Barkhan (the Khetranees) inhabiting the more mountainous district to the northward, were able to hold their own. The whole are nominally subject to the Khan of Kelat as chief of all, but his power appears to vary with his popularity. The tribes reside in tomans, or collections of tents, especially the Brahooee mountaineers. These tents are made of goat's hair black or striped; the furniture is very simple—a few metal cooking-pots, a stone hand-mill, some rough carpets with a rug, a distaff for spinning wool, and a hookah, are all that are usually found in a Brahooee tent. That of the chief may, perhaps, be better furnished, and he is richer than his neighbours in flocks and herds. The dress of the lower orders is made up of a long tunic, trousers loose at the feet, and a black or brown great-coat, or cloak, usually of felt, kummerbund and sandals. They wear a small cap, either fitting tight to the outline of the head or dome shaped, with a tassel on the top. Those of the higher classes are elaborately ornamented with gold thread. A few wear turbans. Instead of the Cholo, Belochi women generally wear the Gaghgho, a long shift resembling English night shirts, but opening behind between the shoulders, and with half arms. It is generally made of red or white stuff, and reaches almost down to the ancles. Among the lowest orders of the people, no trousers or drawers are worn under it. Beloochistan is rich in mineral productions, copper, lead, iron, antimony, sulphur, and alum, abound in various parts; while common salt is too plentiful to be advantageous to vegetation. On the high road from Kelat to Kutch Gundava is a range of hills, from which red salt is extracted. Sulphur and alum are to be had at the same place. Ferrier saw quantities of white and grey marble in the mountains to the westward of Nooshky, but it does not seem to be at all prized by the Belooches. The best timber the Belooches have is of the Upoors a species of the Zizyphus jujuba and tamarind trees, both of which are remarkably hard and durable. The Babool, Farnesian mimosa ; Lye or tamarisk ; Neem or melia azadirachta ; Peepul or ficus religiosa ; Sissoo or dalbergia sissoo (Roxburgh) : Chinar, platanus orientalis. The Bráhúí, unlike all other mahomedan people, have no syeds, pírs, mullas, or fáquìrs, or any persons pretending to inspiration or sanctity amongst them, and are compelled, while holding the craft in due reverence, to seek them amongst strangers.—*Richard F. Burton's Sindh, p.* 417. *British World in the East. Ritchie, Vol. ii. p.* 3. *Ferrier's Journal, p.* 520. *Pottinger's Travels, Beloochistan & Sinde, p.* 327. *Masson Narrative, p.* 83. *Dr. Cook.* See Jell, Kadjak. Kelat, 490-494. India 355. Kappar, Kabul 434 ; Kandahar, Kah, Karez, Kattiyawar, Kambarari, Kalora, Khaka, Nervni. Rind ; Meksi, Kerman.

BALUNG-GACH. BENG. Sweet basil ; Ocymum basilicum.

BALUNGOO.—Seeds of Dracocephalum Royleanuam : black, ⅛ of an inch long, pointed, mucilaginous and slightly aromatic.—*Royle.*

BALUSU KURA. TEL. Canthium parviflorum, *Lam-kùra* signifies "vegetable." In a verse of the Bhàrata where Krishna having been fed by a hunter or savage, his attendant asks : Is the *Balusa kùra* which you received from Pánchálikudu equal to *salyódanam* (fine rice) *apúpa* (cakes) ; *saka* (vegetables,) *supam* (pulse) ? It is a common proverb also. Whilst life remains, I can subsist on the leaves (*kùra*) of the *Balusu* :—implying submission to any necessity however grievous.

BABIT. HIND. Quercus incana.

BALUTA ; BALOTE, BALUTE or BARA BALUTE, so named either from being twelve in number or from the amount set apart for them being divided into twelve parts : the village servants in India who with the inferior servants Alute and Nárákárú vary in number in different parts of India, from 6 to 27, and have different names. In most cases the offices are paid by recognised fees and perquisites, by allotments of corn at harvest time, or by portions of land held rent free or at a low quit rent. In most cases the offices are hereditary, and are capable of being mortgaged or sold. They are a municipality and could be employed to the benefit of the country.—*Wilson.*

BA-LU-WA. BURM. Abelmoschus moschatus.

BAM. HIND. A fathom.

BAM, a river near Ramghur in Sindhiahs territory.

BAM, according to Wilson, an exclamation of salutation interchanged by Saiva mendicants carrying the water of the Ganges. Perhaps a misprint or clerical error for Ram Ram Mahadeo ?

BAM. ARAB. Melia sempervirens.

BAMA. HIND. Red flowered variety of Coronilla graudiflora.—*Linn.*

BAMAH. HEB. A high place, worship in high places. Habamah, Highland.

BAMANGHOTTY. See Kol.

BAMANPALLI, in Long. 77° 51′ E. & Lat. 17° 7′ N.

BAMAW. A tree of Akyab, but not very plentiful. Used by natives for bows, &c. This seems identical with Bamau.—*Cal. Cat. Ex.* 1862.

BAMARI. HIND. Eclypta erecta.

BAMAU. BURM. A close-grained wood, of Pegu ?—possibly a substitute for box-wood, prized by Karens for bows. A cubic foot weighs lbs. 52. In a full grown tree on good soil the average length of the trunk to the first branch is 30 feet, and average girth measured at 6 feet from the ground, is 6 feet.—*Dr. Brandis, Cal. Ex. Cat.*

BAMBAGIA ALSO COTONE. IT. Cotton.

BAMBALI NARINGI. MALEAL. Syn. of Citrus decumana.

BAMBALAS. TAM. Syn. of Citrus decumana—*Linn.*

BAMBAN GAUR. A class of the Rajpoots.—*Wilson's Glossary.*

BAMBANIA H. a sub-division khachhi tribe—a class of cultivators.—*Glossary.*

BAMBAS. See Jelum or Hydaspes.

BAMBERAGAM in Long. 81° 17′ E. & L. 6° 44′ N.

BAMBOLEE, in L. 76° 49′ E. & L. 27 30′ N.

BAMBUSA, THE BAMBOO.

Bansh	BENG.	Nirgali Bans	HIND.
Wa	BURM.	Bar	
Wa-bo	,,	Garu ,,	,,
Pe-lau	,,	Bambu	IT.
Penang-wa	,,	Preng	JAV.
Wa-gna-khyat	,,	Bambu	MALAY.
Bamboo	ENG.	Mambu	
Bambou	FR.	Buluh	
Bambcches.		Kul-mulla	MALEAL.
Indi anischer rohr.	GER.	Mungal	TAM.
Bans	HIND.	Bongu veduru	TEL.
Babma	,,	Kichakai	,,
Nal Bans	HIND.	Penti veduru	,,
Maggar	,,	Potu ,,	,,

Of the bamboo, the most gigantic of the grasses, there are may species, which are applied to so many useful purposes, that it would be difficult to point out an object in which strength and elasticity are requisite, and for which lightness is no objection, to which the stems are not adapted in the countries where they grow,—

hollow cases, bows, arrows, quivers, lance shafts, masts of vessels, bed posts, walking sticks, the poles of palanquins, the floors and supporters of rustic bridges, scaling ladders, durable water pipes, rafts for floating heavy timber, frameworks of houses, floorings of houses, scaffolding, planking, uprights in houses, roofing, bamboo ware, fishing rods, walking sticks, handles of parasols, tent poles, books, musical instruments, paper, pencils, rulers, cups, baskets, buckets, cages, crab-nets, fish poles, pipe sticks, sumpitan or blowing tube, chairs, seats, screens, couches, cots and tables, and, parts of it are used as pickles or candied. Mr. Morrison writing of the use of the bamboo and the bamboo ware, of China, says the shoots are boiled, pickled and comfited, the roots are carved into fantastic images, or cut into lantern handles and canes, the tapering culms are used for all purposes that poles can be applied to in carrying, supporting, propelling and measuring ; for the props of houses and the ribs of sails ; the shafts of spears, the wattles of abattis, and the handles and ribs of umbrellas and fans ; the leaves are sewed into rain-cloaks, and thatches ; the epidermis, cut into splinths of various sizes, is woven into baskets of every form and fancy, plaited into awnings, and twisted into cables. It furnishes the bed for sleeping, the chopsticks for eating, the pipe for smoking, and the broom for sweeping ; the matress to lie upon, the chair to sit upon, the [illegible] to eat on : the food to eat and the fuel to [illegible] with, are also derived from it :—the [illegible] govern with, and the book to study [illegible]pering plectrum for the lyre, and the [illegible]rument of the judge ; the skewer to [illegible], and the hat to screen the head ; [illegible]per to write on, the pencil to write with, and the cup to put the pencil in ; the rule to measure lengths, the cup to gage quantities, and the bucket to draw water ; the bird-cage, the crab-net, the fishpole, and the sumpitan, &c. &c., are one and all furnished by this plant, whose beauty when growing is commensurate to its usefulness when cut down. Bamboo ware as chairs, screens, couches, &c., is largely exported from China, but no account of the amount or direction has ever been kept. Of bamboos on the Khassia Hills there are fifteen, and of other grasses 150, which is an immense proportion, considering that the Indian flora (including those of Ceylon, Kashmir, and all the Himalaya), hardly contains 400. Uspar, Uspet, Uspit, Uskong, Uktang, Usto, Silee, Namlang, Tirra, and Battooba, are some of the names given to bamboos on the Khassia Hills. Writing regarding the bamboos of the Tenasserim Provinces, the *Bambusa spinosa, (thorny bamboo,) Bambusa gigantea, (gigantic bamboo,) Bambusa nana (Penang, or China bamboo)*, Mr. Mason remarks, that bamboo is there used for all purposes to which timber is usually applied. Most of the native houses in the provinces are built principally of bamboos tied together with rattans. Cots, seats, and tables are often formed of the same material. The Karens have names for seventeen species or varieties, one of the strongest of which is covered with large thorns, and makes an impenetrable fence ; but the China bamboo, which has been introduced from Penang, makes the closest and prettiest hedge, and when cut annually, looks like an English quick-set hedge. The gigantic bamboo, the largest bamboo in the world, is indigenous, but in the southern provinces is seen only in cultivation. He mentions that a fungus, like a mushroom, grows at the root of the bamboo in these Provinces, hence called the bamboo-fungus, and is regarded by the natives as quite a specific for worms. It has also been introduced into European practice and is believed by some physicians as superior to any anthelmintic in the Materia Medica. Mr. Mason also adds, that the young shoots of some species of bamboo are sold in the market for a vegetable. They are also used by Europeans for a pickle and a preserve, and in times of scarcity the seeds of the bamboo have often been used by the Karens as a substitute for rice. The roots says The Revd. Mr. Williams are carved into fantastic images of men, birds, monkeys, or monstrous perversions of animated nature, cut into lantern handles and canes, or turned into oval sticks for worshippers to divine whether the gods will hear or refuse their petitions. The tapering culms are used for all purposes that poles can be applied to carrying, supporting, propelling, and measuring, by the porter, the carpenter and the boatman ; for the joists of houses and the ribs of sails, the shafts of spears and the wattles of hurdles ; the tubes of aqueducts, and the handles and the ribs of umbrellas and fans.

The leaves are sewed upon cords to make rain cloaks, swept into heaps to form manure, and matted into thatches to cover houses. Cut into splinths and silvers of various sizes, the wood is worked into baskets and trays of every form and fancy, twisted into cables, plaited into awnings and woven into mats for scenery of the theatre, the roofs of boats, and the casing of goods. The shavings even are picked into oakum and mixed with those of rattan to be stuffed into mattresses. The bamboo furnishes the bed for sleeping and the couch for reclining, the chopsticks for eating, the pipe for smoking and the flute for entertaining, a curtain to hang before the door and a broom to sweep around it, together with screens, stools, stands, and sofas for various uses of convenience and luxury in the house. The mattress to lie upon, the chair to sit upon, the table to dine from, food to eat, and fuel to cook it with, are alike derived from it, the ferule to govern the scholar, and the book he studies both originate here. The tapering barrels of the "song" or organ and the dreaded instrument of the lictor—one to make harmony and the other to strike dread, the skewer to pin the hair and the hat to screen the head, the paper to write on, the pencil handle to write with and the cup to hold the pencil, the rule to measure lengths, the cup to gauge quantities and the bucket to draw water, the bellows to blow the fire, and the bottle to retain the match, the bird-cage and crab-net, the fish-pole and sumpitan, the water wheel and aqueduct, wheelbarrow and cart, &c., &c, are one and all furnished or completed by this magnificent grass, whose graceful beauty when growing is comparable to its varied usefulness when cut down. There are many kinds of bamboo in Borneo, but that most valued is the large kind, called by the natives boolu ayer,' or the water bamboo; it grows to a very large size, attaining the height of sixty feet, and appears to thrive best on the sides of mountains, in very rich soil. The small kinds are used as cooking pots by the natives when in the jungle, and by those whose poverty prevents them purchasing the pots of earth or brass called 'princk,' which the Malays bring them for *sale*. The rice called 'pulut,' is always cooked by the Malays and Dyaks in a green bamboo, this mode of preparing it being most esteemed amongst all their tribes. For the purposes of cooking, the bamboo is cut into lengths of about two to three feet; these being filled with the rice or meat cut into small pieces, and having a sufficiency of water, are placed over the fire in such a position that the point of the bamboo does not come in contact with it, but rests upon the ground beyond it, the fire being placed under the green and harder part of the cane, which resists the effects of the heat and flame until the provisions are sufficiently prepared; a bundle of leaves placed in the mouth of the cane answers the purposes of the lid of an ordinary cooking pot. When travelling in the Himalayas. Dr. Hooker observed a manufactory for making paper out of the bamboo. Large water-tanks were constructed in the fields for the purpose of steeping the bamboo stems. They appeared to be steeped for a length of time in some solution of lime. They were then taken out and beaten upon stones until they became quite soft, or till all the flinty matter which abounds in their stems was removed. Amongst the other uses to which the bamboo is put, it is sometimes formed into a wind instrument. On nearing one of these says a writer, our ears were saluted by the most melodious sounds, some soft and liquid like flute notes, and others deep and full like the tones of an organ. These sounds were sometimes low, interrupted or even single, and presently they would swell into a grand burst of mingled melody. I can hardly express the feelings of astonishment with which I paused to listen and look for the source of music so wild and ravishing in such a spot. It seemed to proceed from a clump of trees at a little distance, but I could see neither musician nor instrument, and the sounds varied so much in their strength that their origin seemed now at one place and now at another, as if they sometimes came from mid air and sometimes swelled up from the mass of dark foliage, or hovered, faint and fitful, around it. On drawing nearer to the clump my companions pointed out a slender bamboo which rose above the branches, and whence they said the musical tones issued. I was more bewildered than before, but they proceeded to explain that the bamboo was perforated, and that the breeze called forth all the sounds. Every one knows of the multiplied uses of the bamboo, how, entire or split as the purpose requires, it forms posts, masts, yards, ladders, chairs, stools, screens, floors, roof bridges, &c.; how, when smaller, it is an ela material out of which a great variety of ba and receptacles are formed for containing s and how its joints make neat and conv bottles for holding and carrying liquids, c fine, are fashioned into flutes. But he the crowning triumph of Malayan art, a most wonderful of all the applications o bamboo, for what could be more bold and i nious than the idea of converting an entire boo, rough from the jungle and thirty or feet in length, into a musical instrumen simply cutting a few holes in it. I had a portunity afterwards of getting possession one of these bula ribat, or bula perinda (storm or plaintive bambu.) As we proceeded, and when the notes had died away in the distance, our ears were suddenly penetrated by a crash of grand thrilling tones which seemed to grow out of the air around instead of pursuing us. A brisk breeze which soon followed and imparted animation to the dark and heavy leaves of the gomuti palms explained the mystery, while it prolonged the powerful swell. As we went on our way the sounds decreased in strength and gradually became faint, but it was not till we had left the bamboo of the wind far behind us, and long hidden by intervening trees and cottages, that we ceased to hear it. Marsden in his Dictionary, states buluh porindu to be "a species of bamboo supposed to yield a melodious and plaintive sound; a sort of Æolian pipe formed by cutting a slit in a bamboo fixed perpendicularly and exposed to the action of the wind," and as an example, gives the quotation, Terlalu amat mardu bunyinia seperti buluh perrindu rasania, which he translates "most melodious was the sound, affecting the sense like supernatural music." It would appear from this that the plaintive bamboo is made in Sumatra. All those seen in Rambau and Naning had a slit in each joint above a certain height, so that one bamboo possessed 14 to 20 notes, each of which varied in itself according to the strength of the breeze. The joints decrease in their bore from the bottom to the top and the slits also differ in their size and shape. Bamboos are never imported into England as merchandise, but are taken there largely as dunnage, and are bought up for similar purposes. A Fungus, like a mushroom, grows at the root of the bamboo and it is regarded by the natives as quite a specific for worms. It has also been introduced into European practice, and is regarded by some physicians as superior to any anthelmintic in the Materia Medica.

The Bamboo flowers once in 30 to 60 years, and dies. Large flowering in the Soopah forests took place in the spring of 1864, during which about 50,000 people assembled from neighbouring districts to collect the seeds, which they use as rice—fever is said to prevail where tracts of bamboos are seeding, Capt. Sleeman, tells us that all the large bamboos, whose clusters and avenues formed the principal feature in the beauty of Dehra Doon ever since the valley became known to us, or for the last quarter of a century, ran to seed and died on one season as well those transplanted from the original stock the previous season as those transplanted twenty years ago. Bamboos do not increase in diameter after they come above ground ; they shoot out as thick as they are to be, and increase only in length after they come up. The people of the hill and jungly tracts of Central India calculate ages and events by the seedings of the hill bamboos ; a man who has seen two *Kutungs*, or two seedings of the bamboo, is considered an old man—perhaps sixty years of age. The best places for bamboos are near water, wells, tanks, or streams. The stems run up to almost their entire length before they throw out any of their branches,—an interesting provision of nature ; for if the lateral shoots were developed before, they could not possibly rise through the thick network of branches above, and attain that form of grace and beauty which nothing in nature can surpass.

Bamboos are very costly near towns. They are taken to Britain chiefly as dunnage in the holds of vessels, and used principally for making umbrella sticks, light garden seats, and handloom weavers' reeds, &c.

There are many species of Bamboo : and, in the Khassia Hills alone, there are fifteen.

1. Bambusa agrestis, *Poir*. On mountainous and dry desert places in all China, Cochin-China and the Malay islands. Joints crooked, often a foot thick, a foot and a half long and nearly solid.

2. Bambusa amahussana, grows in Amboyna and Manipa, has short joints and a thick wood.

3. Bambusa apus, *Schultes*. A gigantic species growing on Mount Salak in Java, stems 60 or 70 feet high, and as thick as a man's thigh.

4. Bambusa aristata, *Loddiges*, Slender stems.

5. Bambusa arundinacea.—*Wilde ; Roxb.*
Arundo bambos.—*Linn.*
Nastus arundinaceus.—*Sm.*
Bambos arundinacea.—*Zet.*
Stems grow in clusters of 10 to 100, and are straight for 18 or 20 feet.

6. Bambusa aspera, *Schultes*. Found at the foot of mountains in Amboyna with stems 60 to 70 feet high, and as thick as a man's thigh.

7. Bambusa balcooa.—*Roxb.*
Dendrocalamus balcooa.—*Voigt.*
The Balcooa bans and Dhooli balcooa of Bengal is of gigantic size and reckoned there the best for building purposes. Before using it, it is steeped in water for a considerable time.

8. Bambusa bitung, *Schultes*. Found in Java.

9. Bambusa Blumeana, *Schultes*. A native of Java, with stems as thick as a child's arm.

10. Bambusa maxima, *Poir*. Found wild in Cambodia, Bally, Java, and various islands of the Archipelago. It grows 60 to 70 feet high, and as thick as a man's body. Its wood is however very thin.

11. Bambusa mitis, *Poir*. Cultivated in Cochin-China, wild in Amboyna. Its stems are thin but sometimes as thick as a man's leg, and 30 feet long, and are said to be very strong.

12. Bambusa multiplex, *Lour*. (Qu. B. Nana ?) Stems 12 feet long, and an inch thick, cultivated for hedges in the north of Cochin-China.

13. Bambusa nana, *Roxb*. A native of China, makes beautiful close hedges and fences.

14. Bambusa nigra, *Loddiges* ; of the neighbourhood of Canton, where its stems, not more than a man's height, are cut for walking sticks and handles of ladies' parasols.

15. Bambusa prava, forms large woods in Amboyna, which come down to the coast : its leaves are 18 inches long and 3 or 4 inches broad.

16. Bambusa picta, common in Ceram, Kelanga, Celebes and other islands of the Archipelago. Its joints are 4 feet long and 2 inches thick, and are used for light walking sticks.

17. Bambusa spinosa, *Roxb*. The *Behor bans*, spined. Common about Calcutta and in

the south of India. It has a small cavity and is therefore strong. Its stems are from 80 to 50 feet long.

18. Bambusa spina.

Canta Banso, URIA.

Extreme height 80 feet. Circumference 1½ feet. Two species of Bamboo which abound in Ganjam and Gumsur.

19. Bambusa stricta.—*Roxb.*

Dendrocalamus strictus. *Voigt.*	Nastus strictus.—*Sm.* Bar, Hind.

Somewhat spiny. Its great strength, solidity and straightness render it fit for many purposes. Lance-shafts are made of it.

20. Bambusa tabacaria, *Poir.* Grows wild in Amboyna, Manipa and Java, its stems with nearly solid joints, 3 or 4 feet long, but not thicker than the little finger, when polished, make the finest pipe sticks. The outside is so hard that it emits sparks of fire when struck with the hatchet.

21. Bambusa tulda.—*Roxb.*

Dendrocalamus tulda.—*Voigt.*

The Tulda or Pika bans of Bengal and India is common all over Bengal, and grows rapidly to 70 feet long and 12 inches in circumference, rising to their full height in 30 days. Improves in strength by steeping in water. The *Jowa bans* with long joints is one variety, and the *Basini bans* used to make baskets, is another.

22. Bambusa vulgaris, *Wendl.* Its stems are from 20 to 30 feet long, and as thick as a child's arm.

In one of his reports, Dr. Cleghorn mentions that immense quantities of fine bamboos are floated down the various rivers of the Western Coast of India. They are one of the riches of those Provinces. They are ordinarily 60 feet long and five inches in diameter near the root, these are readily purchased standing at 5 Rupees per 1000, and small ones at 3½ Rupees per 1000. Millions are annually cut in the forests and taken away by water in rafts or by land in carts. From their great buoyancy, they are much used for floating the heavier woods as (Mutte) Terminalia tomentosa and (Biti) Dalbergia arborea, and piles of them are lashed to the sides of the pattimars going to Bombay. The larger ones are selected as outriggers for ferry boats, or studding-sail-booms for small craft. He tells us that in addition to the vast export by sea, it is estimated that two lacs are taken from the Soopah talook eastward. The Malabar bamboo is much smaller than that of Pegu (Bambusa gigantea) which is 8 inches in diameter. At another place he says that immersing in water or better still, in a solution of sulphate of iron or lime water, is attended with good results, as it extracts the sweet sap which would otherwise induce decay. But, when it is intended to split the bamboos for reapers, this should be done before steeping them in the metallic bath. The merchants on the western coast of India prefer the water-seasoned bamboos which have been months in the water attached to the rafts, that are floated down the Nelambur and Sedasheghur rivers to the sea. The bamboos, there, are often eighteen yards long, and are brought down in immense floats tied together in bundles of fifty by the root ends which are turned towards the forepart of the float.—*Transactions of the Agricultural and Horticultural Society of India, Vol. III*; *Roxb. Fl. Ind., Eng. Cyc.*; *Dr. Mason's Tenasserim*; *Dr. Cleghorn's Reports*; *Dr. Hooker's Him. Jour. Poole's Statistics of Commerce, p.* 18; *Hooker, Him. Journ. pages* 311, 281 *Vol. II*; *Hon'ble M. Morrison's Chinese Products*; *Marsden's Sumatra.* See Bambusa, Mow-Chok. Himalaya, Japan.

BAMBOO CAPS the official summer caps of the Chinese mandarins are made from the rind of a crooked bamboo.

BAMBOO FUNGUS. This fungus is found at the roots of bamboos in Burmah. It is a favourite vermifuge with the Burmese, and has been used with much success by European medical officers in their practice. Dose, a piece about the size of a large cherry pounded and administered in any convenient vehicle.—*Cal. Cat. ix.* 1862.

BAMBOO HARMONICON. See Musical instruments of the Burmese.

BAMBOO SUGAR. ENG. Syn. of Tabasheer.

BAMBORI, a river in Gwalior.

BAMBOU. FR. Bamboo.

BAMBU. IT. Bamboo.

BAMBUSA Arundinacea.—*Roxb. C. P.*

Bambos arundinacea.—*Zet.*

Arundo bambus.—*Linn.*

Nastus arundinaceus.

Wa ...	... BURM.	Kull Mullah	...MALEAL.
Bans ...	... BENG.	Nai-hindi ...	PERS.
Mandgai...	... DEKH.	Moonghil...	SANSC, TAM.
Bamboo ...	... ENG.	Mangil ...	... TAM.
Common bamboo...	„	Mankil ...	... „
„ „ cane	„	Malkas ...	... TEL.
Bans ...	... HIND.	Vedru ...	... „

Stems grow in clusters of 10 to 100, and are straight for 18 or 20 feet, grows in moist places.

BAMBUSA ASPERA, Schultes. Found at the foot of mountains in Amboyna with stems 60 to 70 feet high, and as thick as a man's thigh.—*Roxb. ii.* 191. *Voigt.* 719.

BAMBUSA BACCIFERA. KUNTH. Beesha Rheedii, Kunth.

Beesha ...	... TAM.	Pagutullu,	CHITTAGONG.

Is a native of the Chittagong mountains. It bears a berry one seeded and yields tabasheer.—*Roxb. ii.* 197.

BAMBUSA BALCOOA.—*Roxb.*

Dendrocalamus balcooa.—*Voigt.*

The Balcooa bans and Dhooli balcooa of Bengal is of gigantic size and reckoned there the best for building purposes. Before using it, it is steeped in water for a considerable time. —*Roxb. ii.* 196.

BAMBUSA GIGANTICA of Burmah, Wabo BURM. has been known to grow 18 inches in twenty-four hours and attains its full height in a month.

BAMBUSA NANA.—*Roxb.*

Pelau...	... BURM.	Keufa ...	... CHIN.
Pe-Nangwa	... „		

A native of China, makes most beautiful close hedges and fences.—*Roxb. ii.* 199.

BAMBUSA SPINOSA.

SYN.

Arundo arbor.—*Linn.*
A bambos.—*Linn*
Arundarboy spinosa.—*Rumph*

Behur Bans ...	BENG.	Wagua Khyat	... BURM

This beautiful, middling sized and very elegant species of bamboo grows from thirty to fifty feet high, in the vicinity of Calcutta. Its stems almost solid, have strong sharp spines and grow so close together as to form an almost impenetrable thicket. This bamboo has a smaller cavity in its centre than others of the genus, and a staff of it is put into the hand of a young brahman when being invested with the sacerdotal thread.—*Roxb. ii.* 198, 199.

BAMBUSA STRICTA.—*Roxb.*

Dendrocalamus strictus. *Voigt.*	Nastus strictus.—*Sm.* Sadanapa Vedaru, Tel.

Somewhat spiny. Its great strength, solidity and straightness render it fit for many purposes. Lance-shafts and bear spear-shafts are made of it.—*Roxb.* ii. 193.

BAMBUSA TULDA.—*Roxb.*

Dendrocalamus tulda.—*Voigt.*

Tulda Bans.	Beng.	Vansa Sans.
Pica	„ „	

Common all over Bengal, and grows rapidly to 70 feet long and 12 inches in circumference, rising to its full height in 30 days. Improves in strength by steeping in water. The Jowa bans with long joints is one variety, and the Basini bans used to make baskets, is another. The Bambusa Tulda in Bengal, attains its full height of 70 feet in a single month, that is at the average, an inch in an hour.—*Roxb. ii.* 193-6.

BAMBUS-BOOK of the Chinese, contains the record of the Imperial dynasties, from B. C. 1991, to A. D. 1264. The chronological connexion of its dynasties is as under:

I. dynasty Hia, the first emperor, Yu, beginning B. C. 1991, reigned 432 years.
II. dynasty Shang, began B. C. 1559, lasted 509 years
III. dynasty Tshen, began B. C. 1050, lasted 269 years, the emperor Yen Yang, began to reign B. C. 781. Confucius lived under his dynasty and he recorded the observations of the solar eclipses, from B. C. 481 upwards to 720.
IV. dynasty Tsin, began B. C. 255, and lasted 49 years.
V. dynasty Han, began B. C. 206, and lasted to A. D. 264, a total of 469 years.

BAMGHUR, in Long 76° 14' E. and Lat. 26° 38' N.

BAMIA, AR? the little edible fish known as the Bombay Duck.

BAMIAN, a pass in Afghanistan, 8496 feet above the level of the sea. It is the great commercial route from Kabool to Turkestan, the several passes to the eastward are less frequented on account of their difficulty and their elevation. It is in Lat 34° 50' Long. 67° 48,' is about 1 m. wide, and is bounded by nearly perpendicular steeps. The pass leads over a succession of ridges from 8,000 to 15,000 ft. It is the only known route over the Hindoo-Koosh for artillery or wheeled carriages.

BAMIAN TOWN, in the Bamian pass has been conjectured to be the site of Alexandria ad Caucasum, but it lies north of the Hindu-Koosh and Alexander is supposed by some to have moved to the south of that hill; there are still in existence three large idols, with the niches in which many other smaller ones had once stood, and every idol had its suit of caves, amongst which some had domes or vaulted roofs, being, as Masson supposed, temples.—*Masson's Journeys, Vol. II. p.* 383.) Vigne remarks that if the traditions of the Persians may be credited, we should look to Bamian as the residence of King Lohrasp, the patron of Zerdusht and the Magian religion, but, as these traditions have been handed down to us only through the romance of Firdousi, it is not possible to say what credence they deserve. That a city was here situated in ancient times, the position of Bamian, on the high road from India to Bactria,—lying as a valley at right angles to the path, and between the two passes of Kalu and Ak-robat,—renders extremely probably; but this probability is not confirmed by any facts derived from the accounts of the expedition of Alexander, who, there is every reason to believe, must have followed this route on his march to Bactria. He is said to have crossed the mountains from Alexandria ad Caucasum to Adrasa, in *fifteen days*. He must, therefore, have reached the table-land of Balkh in that time; and there is no notice of his having passed any city on his march. Bamian, then, was either not in existence, or it was founded by Alexander. The pretensions of Begram, however, to be Alexandria ad Caucasum, are much more tenable than those of Bamian; and we must conclude, therefore, that it was not the site of a city until subsequently to the Macedonian invasion. Although at this period there may have been no extensive city on the site of Bamian, yet it appears that the mountains were not destitute of population, and it seems likely, that, at least in winter time, the mountaineers sheltered themselves in excavation in the rocks, which will account for the multitude of caves found in this vicinity, and in other parts on the same line. Thus the Macedonians found, somewhere in the Parapamisan range, a cave, to which they attached the fiction of Prometheus, and asserted that it was in this spot that he was chained. This is proof, therefore, of such excavations being in existence, and of the purposes to which they were applied. Even at a later period, we have the evidence of Chinese writers, who, speaking of the people of Fan-yan-na,—*i. e.*, Bamian—remark, that in the winter season the inhabitants take refuge in caverns cut out of the rocks (vide Melanges Asiatiques de Remusat). They are, in fact, too numerous and too extensive to be regarded as, exclusively, either catacombs, or monastic cells, although they may have been occasionally so employed. The sculptures at Bamian are "manifestly Buddhist."—*Vigne's Personal Narrative, p. p* 185 *to* 187.

Burnes tells us of the celebrated colossal idols and innumerable excavations called "*Sumach*," to be seen in all parts of the valley for about eight miles and which still form the residences of the greater part of the population. A detached hill in the middle of the valley is quite honeycombed by them and is called the city of Gulgula. Caves are in greater number on the north side of the valley where the idols occur, on all sides of which are excavations. Bamian is subject to Kabul, its name is said to be derived from Bam. Pers. balcony,—(*Burnes.*)

This town has usually attached to it the designation of Bhut, or Idol-Bamian, from the two remarkable statues above noticed, and which are carved on the face of the rock, opposite to the hill on which stood the city. One is larger than, the other is called Sang-sal or Rang-sal, and is said to represent a male; the smaller, called Shah-muma, is considered to be a female; but the general appearance and costume of both are essentially the same, and indicate no difference of sex. On either side of the figures are numerous caves excavated in the rock, usually with vaulted roofs, which were sometimes carved flowith wers. Both figures have been mutilated, by order, it is said, of Aurungzeb. The faces and forearms of both were knocked off, and a thigh of the larger was broken. They are both clad in long loose robes, descending below the knee. The height of the smaller figure was one hundred and seventeen feet; that of the larger could not be measured, but it must have been about one-third more. Paintings of this kind had descended to within thirty feet of the ground, but the plaster had, for the most part, peeled off. An embellishment of the ground,—a white ball with a pyramid rising from it, a common ornament of sculpture in Tibet—Moorcroft found frequent here. Four figures under the spring of the arch of the alcove were of very beautiful delineation, and painted with much delicacy of colouring; below them was the head of a male figure, which resembled in expression the divinity called, by the Tibetans, Chamba. The origin and use of these excavations are matters of speculation. According to an account given to Moorcroft by an old and intelligent native of Bamian, dead bodies have been occasionally found in subterranean chambers in considerable numbers, and which have fallen to dust upon being exposed to the air. It is not impossible, therefore, that part of these excavations may have served as catacombs; but Moorcroft had no doubt that they were also, as indeed they still are to a certain extent, habitations of the living. His conviction, from the character of the buildings, of the caves, paintings, and sculptures, was that Bamian, whatever its ancient appellation, was the residence of a great Lama, bearing the same relation to the Lamaism of the west, as Lhassa does now to that of the east. The name of the smaller idol, Shah-muma, is evidently only a corruption of Shak-muni; but this is evidence of minor importance. From a somewhat intimate acquaintance, however, with the structures used as monasteries in Ladakh and Chanthan, he felt empowered to say that those excavations which were connected by means of galleries and staircases constituted the accommodations of the higher orders of the Lama clergy, and that the insulated cells and caves were the dwelling-places of the lower classes of the monastic society, as gelums, and anis, monks and nuns, and as serais or hostels for visitors. The laity inhabited the adjoining city. At a comparatively modern period the destruction of Gulgula is attributed to Changez Khan, who, from some cause not now remembered, being highly exasperated with the people, came upon them suddenly, put them without mercy to the sword and overturned and demolished the place. It was said that at a day's journey from Bamian, to the south west, were the remains of an extensive fortress, called Bandeh Berber, erected near a large lake. The political vicissitudes of Bamian must have been the same as those of Bactria and Kabul. We find there successive vestiges of Greek, Scythian and Sassanian rule, and of the buddhist and mithraic forms of worship. In the early ages of the christian era, or perhaps for a century or two before, buddhism prevailed at this place. Such of the caves as are appropriated to buddhist mendicants were embellished and the statues of Sakya muni (Buddha) were hewn out of the rock. At a subsequent period, the emblems of the fire worship and its altars, succeeded, until these were in turn displaced by the Arab and the Koran. Bamian is rich in minerals. Gold is found at Fuladst, also lapis lazuli, and in the hills of Irtalif north of Kabul. There are 10 or 12 lead mines in a defile in the neighbourhood, also ores of copper, tin and antimony. It is said, also, to have sulphureous springs.—*Moorcroft's Travels, Vol. II. p.* from 387 to 393. *Vigne, p.* 393. *Vigne's Personal Narrative, pp.* 185-6-7,193-397. *Masson's Journeys, Vol. ii. pp.* 283,295. *Tod's Rajasthan, Vol. i. p.* 22. See Affghan. Arashtra. Inscriptions, Jews. Kabul. Kafer, Kohistan. Kush.

BAMINY KOONDA, a river in Rungpoor.

BAMINGOLA, in L. 88° 3′ E. and L. 25°, 10′ N.

BAMINY, in L. 90° 8′ E. and L. 22° 21′ N.

BAMMO, in L. 97° 30′ E. and L. 24° 4′ N. Bamo, properly Mang-mo, is a frontier town, lying between Yunnan and Burmah, in the Shan territory. It has the Pu-long tribes on the Ka-Khyen around it. From Bamo, to the Burmese frontier is 46 miles: Bamo to Momin, is 90 miles, in Shan and Chinese territory now governed by the Pan-Thay. It has been proposed to open a route by Bamo, from Burmah, but it would enter China in the sterile province of Yunnan. Captain Sladen of the Madras Army was the leader in the prosecution of this attempt to open communication. See Ka-Khyen.

BAMORE and SENDULA are two nuddies of Gwalior. The Bamore river runs near Akbarpoor.

BAMUN-HATI. Beng. Clerodendron siphonanthus.

BAN. Hind. Wild, uncultivated, forest. Sandarban: Tar-Ban. or Sandar forest, or Palmyrah forest.

BAN. Burm. The purest refined silver of the Burmese.

BAN, also Bang. Hind. Quercus incana.

BAN. H., a rocket.

BAN. H., cotton.

BAN. Arab. Moringa pterygosperma.

BAN. Arab? Per. Bed-i-mushk.

BANAK, a river of Burmah, its valley is occupied by the Red Karen. See India, p. 345.

BAN-AKROT. Hind. Pavia indica, Indian horse chesnut.

BANAFSHA. Hind. Viola serpens. Also, the dried plant of the Viola odorata. The infusion is a good nauseant and diaphoretic.—*Beng. Phar, page* 305.

BANANA, a West Indian and Tropical American term of the plantain tribe Musaceæ to which, in India, the term plantain alone is given, and of which there are few species, but many varieties, their fruits are largely eaten and the fibres of the stem of one species are much used. It is the Musa textilis, of the Philippine Islands, which furnishes the important article of commerce known as Manilla Hemp. In the valleys of the south of the Peninsula of India and of the Dindigul mountains, M. superba is found. The common edible varieties of M. paradisaica, or musa sapientum, flourish even in the poorest soils and also near brackish water. The natives of Bengal generally prefer the larger and coarser fruited kinds, called banana, to the smaller and more delicately tasted fruit, known as the plantain, which is alone esteemed by Europeans. The edible varieties extend through the Indian Archipelago, northwards as far as Japan, while in China are found M. coccinea and M. Cavendishii. Again M. glauca is indigenous along the Malayan peninsula. Dr. Helfer mentions that 20 varieties are found in the Tenasserim Provinces, and M. ornata grows in Chittagong. The Malays reckon forty varieties of the cultivated banana, and the Philippine islanders carry them to fifty-seven, both people having a distinctive epithet for each variety. The qualities are as various as those of apples and pears in Europe, the ordinary sorts being a very indifferent fruit. Major Munro has seen the wild plantain at 7,000 feet above the sea, in the Khondah slopes of the Neilgherries. That cultivated in Nepal has been called M. Nepalensis, and a similar species may be seen growing below the Mussoorie range, as well as near Nabu. The fruit however in all these situations consists of little else than the hard dry seeds. A similar variety of M. sapientum, having seeds surrounded with a gummy substance, instead of a pulp-like fruit, was found by Dr. Finlayson, on Palo Ubi, near the southern extremity of Cambodia. In Batavia, also, there is stated to be a variety full of seeds, which is called Pisang batu or Pisang bidju—that is, seed plaintain. In Khasia the name of the wild plantain is Kairem; and the cultivated Kakesh.—*Hooker's Him. Jour. Vol. II. p.* 268; *Royle's Fibrous Plant, Crawfurd's Dic. p.* 31. See Manilla Hemp, Musa.

Plaintain fibre.

BANAR, a river running near the towns of Banar and Nonda in Nusseerabad and passing Jumalpoor cantonment.

BANAS and Koteree or Kotesiree, are rivers near Sanganeer in Oodeypur. The Banas river runs through Jeypore.

BANAULA. Hind. Gossypium herbaceum cotton seed.

BANAWARAM, in Long. 76° 13' N., another in Long. 77° 34' E. and Lat. 13° 7' N

BAN-BILLI. Hind., a wild cat.

BAN-BOAY. Burm. In Amherst, a strong and useful wood, a kind of Acacia employed for house posts.—*Captain Dance.*

BANBOK. See Laos.

BANCA ISLAND lies, in its northern point, in Lat. 1° 52' N., Long. 125° 24' E. It is hilly and of middling height. It has a chain of hills, generally called St. Paul's mountains, contiguous to its south end, 930 feet high, but Parmasang and Manopen hills, on the west side of the island, are respectively 1350 and 1617 feet in height. The straits of Banca are bounded on the east by this island, and on the west side by the coast of Sumatra. The straits extend from Lucepara island about 129 miles, with an undulating course to the N. W. The tides are irregular, and greatly influenced by the winds. The form of Banka is irregularly oblong. Its general direction is from north-west to south-east, nearly parallel to the southern extremity of Sumatra; the passage which separates these two islands known as the Straits of Banka, is one of the most frequented in the Indian seas. It is rather more than a hundred miles long, and in the narrowest part the Banca and Sumatra shores approach within seven miles of each other. Banca has a very picturesque appearance, the hills near the shore being covered with trees and herbage, while, in the interior, a mountain of considerable elevation, Gunung Maraj, raises its head above the neighbouring eminences. The term Banka has also been applied to different territories near the southern extremity of the island of Sumatra. Banka Plembang was the ancient denomination of the present kingdom of Plembang on the Eastern Coasts, extending in the west to Bankaulu, contracted into Bankulu. The situation of Bunko-Muso is undetermined, and this name is at present almost exclusively applied to the island of Banka. A tradition has been preserved that Banka was formerly under the dominion of Java, and the places are still pointed out where the sovereign resided. The Javanese occupied considerable tracts along the western coast, and the principal establishments were at Kuttewar-ingin, and near the discharge of the rivers of Menda, Selan and Banko-kutto. Banca is inhabited by four distinct races of people. The Orang-Gunung or hill-people, the aborigines of the country, are established in the interior, where they lead a wild kind of life, but are submissive to the regulations established by the government. The sea coasts are occupied by Malays who have emigrated from Sumatra: they are extremely indolent, all the labour, either in cultivating pepper or working the mines, being performed by the Chinese consisting of between fifteen and twenty thousand souls. The Orang-Laut or sea-people, who are similar in their habits to the Badju found upon the coasts of Borneo and Celebes, though belonging to it, can scarcely be said to inhabit the island, for they live entirely in their little prahus, and wander about the coasts. They subsist principally by fishing, and it is said that they are always ready to give information to the piratical rovers. The discovery of tin attracted numerous foreigners, chiefly Chinese, who with the working of the mines introduced the first attempts at agriculture and commerce; various settlements were formed, and a commencement was made in clearing the ancient forests, which had till then not been disturbed, for the purpose of forming permanent places of residence. The principles of civilization were offered to the rude inhabitants. During many years of this period, this small island has yielded an annual revenuein tin, which for a district of the same extent, equals the metallic wealth obtained annually from the mines of Mexico, according to an average calculation of the produce of the whole kingdom: Circumstances have contributed to reduce its produce in later periods. Anten is a district in the island containing the richest of the tin mines. — *Earl's Archipelago. Horsburgh. White's Voyage, p.* 223. See Pulotoojoo.

BANCA DEVA, also called Banga, a deity of the Gonds. See Banga.

BANCAPOR, a fort near Savanore.

BAN-CHAR. Hind. Quercus semecarpifolia, Alpine oak.

BANCHA-RAMA. Sans. from bancha, desire, and Rama.

BANCHDOW, in Long. 88° 58' E. and Lat. 26° 3' N.

BAN CHOWR. Tel. A wild yak.

BANCOONGONG or **BACOONGON BAY**, in Sumatra opposite the river and village of same name, in Lat. 2° 52' N. and Long. 97° 38' E., where ships find shelter.—*Horsburgh.*

BANCOOT RIVER in Lat. 17° 57' N. and 1½ miles E. of Bombay Castle, has 10 feet on the bar at low water. The town of Bancoot, on the northern part of the Angria country, surrendered to Commodore James, on the 8th April 1756 and was called Fort Victoria.-*Horsburgh.*

BANCURAH 101 miles fro[illegible]alcutta is in a fertile district with much [illegible] and iron ore: Coal is worked at Raniganj.

BAND. Pers. Hind. a band, a tie, a dam, a dyke, a causeway, a bank, a bundle of papers: Băndah, a slave: a servant, Bandi, a slave girl, Băndiwan, a prisoner; Band-o-bast settlement. Bănd is also an embankment a cross a valley, or across a dip of the ground to form a tank. The whole of the Carnatic is covered with such tanks, some of them very small, sufficient only for a small field, others of considerable dimensions, one near Cumbum is 8 miles in circumference and one near Hyderabad is about 7 miles in circumference. These words are all from the Hindi word bandhna to tie or bind.

BAND. Ger. Ribbon.

BANDA. Bali. Areca catechu.

BANDA. An ascetic or byragi, who opposed the doctrines of the Sikh guru-Govind. See Akali.

BANDA, a district in India forming an irregular triangle bounded on the north and north-east by the river Jumna, which separates it from the Fattehpur and Allahabad districts; on the west principally by the river Ken (Caine). Part of the Banda and Pylani divisions, moreover, extend beyond that river and are bounded by the Hamirpur district, and the Cherkhari and Jaloun states; the south-west and south are bounded by the river Ken and partly by the second range of low hills, forming the flank of the table-land of Bundelkand. But the intermediate boundary is very irregular, owing to the intermixture of villages belonging to Adjyegarh and Punna among the independent states, but principally arising from the exchange of many villages in pergunnahs Kunhas and Bhitri for the pergunnah of Kalinjar taken from the Chaubehs; this leaves a long slip of independent territory between the pergannahs of Budousa and Tirohan. The actual area amounts to 18,42,480 acres or 2,174-8 statute and geographical miles distributed as follows:— Barren, 3,49,214 acres. Culturable, 4,60,887 acres. Cultivated, 9,63,126 acres. As a civil station it was greatly disliked by the Bengal civilians.—*Mr. Edgeworth in Beng. As. Soc. Journ. No. II. of* 1850.

BANDAIR HILLS are separated from the Panna range by the valley of Lohargaon, rising from a platform from 10 to 20 miles wide. Average elevation, 1,700; but amounting on some of its indulations, to 2,000 feet. The hills are generally of sandstone, intermixed with ferruginous gravel. The basin of Lohargaon is of lias limestone. The outer limit of this hilly tract is marked by abrupt isolated hills.

BANDA ISLANDS, a group, ten in number, lying near each other. Of these, the crescent shaped island of Lontar is the largest. The area of the whole group is only 176 geographical square miles, but in five of them, all the nutmegs consumed in the world are grown, and for the last 20 years, they have annually yielded lbs. 580,000 of nutmeg and lbs. 137,000 of mace, Dutch weight. The Dutch cultivate the tree. The islands are high, liable to sudden gusts of wind. There is an anchorage in Lat. 4° 31' S. and Long. 130° 0' E. at the foot of Goonong Api. Amongst the Molucca islands, Banda is the chief nutmeg group. The nutmeg with the equally prized mace, the excellent maritime position, the superb roadstead, and the fertile soil of Banda, render it conspicuous among the Spice Islands: but, unlike Amboyna it is unhealthy, and exposed to constant danger from the Gunong Api volcano, which has many times burst in magnificent eruption, devastating the neighbouring region, and blasting it with a shower of scorching ashes. The three islands, Banda Neira, Nuthoir, and Gunong Api, form a roadstead sheltered from every wind, but the Fire Mountain is the curse of the group, not only when in eruption, but on account of the insalubrity it spreads around. The base of the volcano, called by the French the Grenade of Banda, occupies the whole surface of the islet, to which it gives a name. Its height is about 2,000 feet, covered with magnificent vegetation, commencing at the line where the waves cease to beat, and continuing upwards to the point where the lava ceases to flow, being cooled by the air. But the nutmeg is not cultivated or Gunong Api and the isle is inhabited only by a few emigrants from Timor.—(*Temminck, Possessions Neerlandaises* III. 290) *John's Indian Archipelago. Vol. I. p.* 134, 135. *Bickmore's Travels. Horsburgh.* (*Valmont de Bomare, Histoire Naturelle, IV.* 177, 181.) *Hogendrop Coup d'Œil sur Java.* See India, p. 357; Java.

BANDAH. Two towns, one in, L 74° 50' E. and L. 23° 2' N. the other in Long 80° 19' E. and Lat. 25° 30' N.

BANDALA, in the Philippine Islands, a fibre extracted from the harder and stronger outer layers of the Musa textilis employed as cordage.—*Royle.*

BANDANA. Tag. A term applied to a calico print; also to a kind of silk or cotton handkerchief with bright figures, &c. upon a red or dark ground.—*Faulkner.*

BANDA NEERA. an island of Java.

BANDA NEVALI, Adiantum lunulatum, N. L. Burm.

BANDAR. Arab. Hind. Pers: A harbour, a port; in Arabic and Persian, a prefix, as Bandar—Abbas; in Hindustani a suffix. as

Machli-bandar, Lakpat-bandar: It is from this, doubtless, that comes the harbour Bandar boat of British sailors. The harbour master or governor of a place is the Shah-bandar, or king of the harbour.

BANDAR ABBAS, formerly called Gambaroom or Gamberoon, is a sea port town in the province of Kirman. It is the ancient Harmozia. It is situated in a barren country, in a bay of the Gulf of Ormuz. It is subject to the Imam of Muskat, and fortified with double walls. It did not long benefit by the fall of Hormuz; but appears to have been nearly ruined during the reign of Nadir Shah whose tyranny extended its baneful influence even to this extremity of the Persian empire; so that in 1750 Mr. Plaisted found there nine houses out of ten deserted.—*Ousley's Travels Vol. I p.* 165. "*A Jourual from Calcutta to Aleppo, &c.*" *p.* 11. *Lond.* 1758. *Kinneir's Geographical Memoir, p.* 201.

BANDARA CHETTU. Tel. Hymenodyction excelsum.—*Wall.*

BANDAR MANCHE. A small ship. See Boat.

BANDARRIE, the aborigines of Bombay, who climb the palmyra and cocoanut trees for palm wine. From habit, these men attain extraordinary dexterity in ascending the loftiest trees with little other assistance than may be afforded by the natural rings or sheaths of their slender stems. The costume of the Bandarrie is a close crimson cap, bound round the head with a small handkerchief, the depending corner protecting its neck from the influence of the sun. A stiff leather kilt descends to the knee, fastened round the waist with a thong, which secure the necessary implements of his calling, and supports a strong hook, on which the Bundarrie swings a chattie, previous to commencing his ascent.—*Postans' Western India, Vol. I. p.* 89.

BANDARU. Tel. Dodonæa Buchanniana *D. C.*—D. angustifolia and dioica, *R. ii.* 256.

BANDARU. Hind. Gardenia tetrasperma. See Putkanda.

BANDELKHAND STATES, 32 in number. See Bundelkund.

BANDEE, a river of Ajmir and Jeypore.

BANDENG. Malay. A palatable fish, much resembling the salmon in taste. They are reared in fish ponds and the young are sold at 18 Rupees per redan of 5,500 small fish.

BANDER in Long. 79° 57′ E. and Lat. 25° 58′ N.

BANDHAGURH. See Senapanthi.

BANDHAL GOTI, a Chauhan Rajput tribe in Bundelkund and Benoudia, *Wilson's Glossary*.

BANDHARA, a hereditary elective officer of Johore.

BANDHRIK. Hind. Pentapetes Phænicea.

BANDHUJIVAKAMU—S. also Bandhujivamu—S. also Bandhukamu—S. Pentapetes phænicea, *L.* also Ixora bandhuca.—*R. i.* 376.

BANDERWA. See India p. 327.

BANDICOOT, in Australia the Perameles nasuta, of St. Hilaire, a marsupial animal. In India, the name given to the Mus giganteus: It is the English corruption of the Telugu words Pandi-Koka, pig rat and weighs 3 lbs. Its bones are fragile and it is very easily killed.

Its nests, when rifled, are frequently found to contain considerable quantities of rice, stored up against the dry season.—*Tennent's Sketches of the Natural History of Ceylon, p.* 45.

BANDJEGAUM, in Long. 77° 10′ E. and Lat. 19° 48′ N.

BAND-I-AMIR. Pers. See Bendemeer.

BAND-I-KIR, a town in Iran.

BANDI, A Court Minstrel. See India.

BAND PAT. Hind. Clitorea ternatea.

BANDRPUR LOLAB. A pass leading from Tibet to Kashmir.

BANDUNGA, a river near Bhogpur in Seharunpoor.

BANE. Flea-bane, Insect-bane, Musquito-bane, Bug-bane-bane, Rat-bane, &c. There are few residents in India who have not suffered from the attacks of insects, and from the[illegible] predations; and it may be useful to be a[illegible] that many substances are known to posse[illegible] properties, the influences of which are avoided by noxious creatures and annoying vermin. It is supposed that some species of *Ants* will drive out the termites or white ants, but this point is not yet fully ascertained. The whole family of "Apocynaceæ," termed "dogbane," are truly so. One of them, the Nerium piscidium, common in the Khassia or Sylhet mountains, and the bark of which contains much useful fibre, proves deadly to fishes.—*Dogs* refuse to sleep on rugs beneath which mint has been placed, and this simple plant thus affords a good means of ensuring cleanliness. *Deer* refuse to approach crops, in which the safflower, Carthamus tinctorius, has been intermixed. White mustard, sown round vegetables, as the cabbage, prevents the inroads of *caterpillars*. *Snakes* are said to avoid the fennel plant as well as all places strewed with fennel seed (Nigella sativa) (Syn. Siah Daneh, *Pers*; Magerela, *Bengal*; Kala jira, *Hind*:) The rasped wood of the oleander is employed as ratsbane. To destroy flies in European countries, a decoction of quassia, placed in a plate, is frequently had recourse to. In Southern India, plants of the "Ghi-gowar" or "Kulbunda," the Aloe perfoliata, are suspended with their roots upwards, with a longitudinal incision in each leaf, to permit the aroma of the juice to become apparent, and disperse musquitoes from the room. Flies, fleas and musquitoes, avoid rooms in which branches of pennyroyal have been suspended. Fortune mentions that the Chinese expel musquitoes from their rooms and boats, by the smoke of pastilles. In India they are smoked out by burning chips of wood. A species of ant, *Formica smaragdina*, well known in Malabar and the wooded parts of India, is employed in the North West Provinces to destroy the nests of wasps that have established themselves in a house. In this case they are said to destroy all the wasps, but become so infuriated that their own indiscriminate attacks are nearly as bad as those of their foes. Honigberger states that a twig of the walnut tree, Juglans regia, is kept in a room, as a means of dispelling flies. The same author mentions that bitter almonds are poisonous to wild beasts; and when writing on the Conyza anthelmintica (Vernonica anthelmintica, Serratula anthelmintica) he adds that when fleabane is roasted, flies take to flight, and when sprinkled on the floor, fleas disappear. Dr. Hooker mentions that Clerodendron leaves bruised are used to kill vermin, flyblows, &c. in cattle. The Inula pulicaria, or *Fleabane*, a common road side plant in Britain, strewed or burned in any place destroys *gnats* and *fleas*: and the same properties are attributed to the common Ox-eye daisy of England, *Chrysanthemum leucanthemum*. A powder, the *Poudre mismaque*, is sold in Paris, in boxes at from two to twenty francs, warranted effectual for destroying immediately, bugs, fleas, ants, lice, black beetles, caterpillars and all insects, "Camomille rouge" the beautiful red Pyrethrum (P. carneum, formerly Chrysanthemum coccineum), in England a pretty garden, ornamental flower, is a dread enemy to the Caucasian, Persian, Koordish and Russian flees. It is prepared from the flower heads of the plant which, when dried and crushed, form the famous Persian flea powder. When used by being sprinkled in beds, &c. It kills all disagreeable and hurtful insects, and a small quantity of the spirit distilled from it, destroys insects in green houses, or can be applied to vegetable life in the open air against green fly, house fly, &c. without injuring the plants. A half tea-spoonful of the powder sprinkled between the sheets will effectually dispel all fleas, bugs and lice, gnats and musquitoes, and it is said also to destroy maggots which breed in wounds, a property which the valuable *Decamulle* gum of India, the gum of the Gardenia lucida, and chloroform, also possess. More than twenty villages in the district of Alexandropol are occupied in the cultivation of the red chamomile, and thirty-five tons of this flea powder are manufactured annually for Russian use, in Trans-Caucasia alone, being equal to about 40,000 kilos of powder from 60 millions of pounds weight of fresh flowers. The red Pyrethrum is now largely cultivated in various circles and governments of Southern Russia. The flower heads lose vastly in weight by drying, and to get one pound of dried flowers, 1,000 lbs. of the fresh are required. It begins to flower in June and lasts more than a month. The flowers are plucked in dry weather, and a good collector will pluck 30 to 80 lbs. daily. They should be dried in the shade and care taken to stir them frequently. The Pyrethrum powder, seems the same as the well known Pireoti of Koordistan, is largely imported into Turkey and was lately greatly used in the barracks and hospitals of Turkey and the Crimea, by the British and French officers: it accomplishes very effectually the destruction of fleas, &c. Mr. H. H. Calvert, at first, considered the plant might be a Pulicaria, a Matricaria or Anthemis; but, that the Pireoti is the powder of the half ripe flower heads of Pyrethrum carneum, there now seems no doubt. The Pyrethrum carneum, does not grow in India, but its introduction merits favorable consideration. The property it possesses, of dispersing the vermin which infest beds and bed-rooms, probably depends on the pungent oil it contains; but until its introduction into India, attention might be directed to other species of Pyrethrum and to the allied genus of chrysanthemum, or Christmas flower, as likely to contain an oil with properties similar to the fleabane. Mr. Mason mentions two species of Pyrethrum, P. indicum, and P. sinense, as growing in the Tenasserim Provinces. The odour of the common fever few, of Britain, P. parthenium, is peculiarly disagreeable to bees, and these insects may be easily kept at a distance by a person carrying a handful of the flower heads: perhaps, also, the "*akarakarum*" of India, the Pyrethrum officinale or common pellitory, may have equal power. Allusion has been made to the well known Chrysanthemum, or Christmas flower, as likely to possess an oil of similar character, and perhaps possessing similar properties to that of Pyrethrum. One species, the C. Indicum, the common Gool Dawadee, and of which there are several varieties, grows all over India, and is at any rate worth a trial, as indeed is every other unexpensive suggestion [illegible]hich holds out a promise of increa[illegible] comforts of the sleeping room. It is [illegible]abit of the natives of India, to suspend in their houses a few branches of the milk hedge (Euphorbia tirucalli), to destroy fleas. They likewise make pastilles containing sulphate of copper, "Neela toota," *Hind.* which when burned destroy bugs, musquitoes and fleas, using three or four in a day. The sherifah or custard apple seed, disperses vermin. Flies are reported never to settle on the tree or its fruit, though ants will attack both. Bugs have a great antipathy to the leaves of the custard apple, and instantly quit a bed in which they are placed, and Dr. Irvine mentions that *Babai*, the roots of Ocimum pilosum have the same effect. The leaves of the American species of the sweet flag are said to be noxious to insects and to be never eaten by cattle. Sweet-flag, Eng.; Vaesamboo, Tam.; Vudya, Tel.; Vyamboo or Vashamboo, Mal.; Shwet-Buch, Beng.; Buch, Duk. The Gum Anime, is a protection against the attacks of insects; and colocynth is useful for protecting shawls and feathers against their inroads. Camphor-wood is valuable for the construction of chests and almirahs, as its powerful odour protects the contents from the ravages of white ants and other insects. Leaves of Margosa trees, Melia and Azaderachta, dried and kept in books, are much used by the people of India to preserve them from the attacks of insects. To prevent injury to furs, feathers, books, papers and clothes that are lodged in trunks, book cases, &c; it is useful to place along with them small packets of camphor; or little cups of camphor dissolved in alcohol; packets of the seeds of the small fennel flower, Nigella sativa, the "*kala jira*" of the bazaars: pieces of the roots of the Aconitum ferox, the dreadful "*bish*;" "*Ati Singeea bish*," or bishnak of the bazaars, may also be used, but its highly poisonous effects on animal life, require its use to be had recourse to with the greatest precautions. Insects are very destructive to books in India and the pastes or gums employed in the bindings, form special objects for the attacks of certain tribes: it may be useful to be known, therefore, that insects refuse to attack the gum of the cashewnut fruit, and that it or a little sulphate of copper or blue vitriol mixed with the rice or flour paste, used for joining papers, very effectually keeps these destructive pests at a distance. The leaves of the Justicia gandarussa, Lin.; Caar noochi, Tamil; Nalla Wawalee, Tel; Neela Nirghoondee, Sans., dried and powdered, are used as a preservative to keep insects from books. Various substances are employed by the Chinese to drive away musquitoes. "Our boatmen, says Fortune, who heard us talking about the musquito asked Sing-Hoo why he did not go and buy some musquito tobacco, which they said might be h[illegible] in the village, and which would drive all the [illegible]uitoes out of the boat. I immediately desp[illegible]ed him to procure some of this invaluable substance. In a few minutes he returned with four long sticks in his hand, not unlike those commonly used for burning incense in the temples, only somewhat longer and coarser in appearance. He informed me they cost only two cash each—certainly cheap enough if they answered the purpose. This which we had just purchased was made with the sawings of resinous woods—I believe procured from juniper trees—and mixed with some combustible matter to make it burn. A piece of split bamboo, three or four feet in length, is then covered all over with this substance. When finished it is as thick as a rattan or a small cane. The upper end of the bamboo has a slit in it for hooking on to any nail in the wall, or to the roof of a boat. When once lighted, it goes on burning upwards until within six inches of the hook, beyond which there is no combustible matter, and it then dies out. A somewhat fragrant smell is given out during combustion, which, at a distance, is not disagreeable. Sometimes the sawdust is put up in coils of paper, and is then burned on the floors of the houses. Various species of wormwood are likewise employed for the same purpose. The stems and leaves of these plants are twisted and dried, and probably dipped in some preparation to make them burn. The musquito has a mortal aversion to all these substances and wherever they are burning, there the little tormentors will not come. I procured the sticks in question, and burnt them daily, after this; and although the insects were often swarming when I entered the boat or an inn, the moment *their* "tobacco" was lighted they quickly disappeared, and left me to sit at my ease, or to enjoy a refreshing sleep. Whoever discovered this precious tobacco was a benefactor to his country and should have been honored with the blue button and peacock's feather at the least. But I suppose, like all other Chinese discoveries, it is so old that the name of its original discoverer cannot now be traced. Amongst the insects which infest books in India are two genera, which are usually regarded as accomplices in the work of destruction, but which on the contrary pursue and greedily feed on the larvæ of the death watch and the numerous acari which are believed to be the chief depredators that prey upon books. One of these maligned genera, is a tiny tailless scorpion (Chelifer) of which three species have been noticed in Ceylon, the Ch. librorum *Temp.* Ch. oblongum *Temp.* and Ch. acaroides *Hermman*, the last of which it is believed had been introduced from Europe in Dutch and Portuguese books. The other genus is the Lepisma, and the tiny silvery creatures of which it consists are called by Europeans the fish insect. This genus comprises several species of which however only two have been described one of which, of larger size, is remarkable for the whiteness of the pearly scales, from which its name is derived. These contrasted with the dark hue of the other parts and its tripartite tail, attract the eye as the insect darts rapidly along. Like the chelifer, it shuns the light, hiding in chinks till sunset, but is actively engaged during the night, feasting on the acari and soft bodied insects which assail books and papers. An almond tree twig kept in a room, is said to dispel flies. The bruised seeds of the custard apple are said to dispel bugs.—*Tennant's Ceylon. O'Shaughnessy. Hooker Him. Journ. Honigberger.*

BANEBERRY. Actæa spicata.

BANEPA, a district of Nepal.

BANG. Beng. Duk. Hind. Pers. Cannabis sativa.

BANGA. The river Thog of Bengal, a kind of porpoise.—*Wilson.*

BANGA, a prince or ruler mentioned in an inscription at Khajrao, 18 miles from Chitterpore, in Bundelkhand.

BANGA, in Long. 92° 27′ E. and Lat. 24° 50′ N.

BANGA. Hind. Raw Cotton.

BANGALI ELACHI. Beng. Amomum subulatum.

BANGALORE, in L. 12° 57′ 6; L. 77° 33′ 50, a large military station and town in Mysore. At the flagstaff, the mean height of the cantonment above the sea is 2,949 feet according to Ad. Schl. and 2,874 according to Babington. The climate is almost European, but at the more exposed parts is unfavorable to young children. The fruits of Europe all grow well, as also the vegetables, and many European officers are settling there. Bangalore Pettah or civil town was taken by storm by the British, on the 21st March 1791 a battle was fought on the 6th December 1791. See Silk. Tea.

BANGALOW, from banglah, Hind. A single storied house.

BANGAN, a group of islands in the Eastern Archipelago, occupied by the Manguianes, a mild and ill-used people. See Manguianes.

BANGANAPILLY, a town in the Ceded Districts, capital of a small chieftainship held by a mahomedan family of Syeds. See Baunganapilly

BAN GANGA or WYN GOWGA, a river of Seonee and in the Bhurtpore territory.

BAN-GANGA, a tank at Walkeshwar near Bombay, said to have been produced by Krishna firing an arrow at a spot, to obtain pure water.

BANGAR. Hind. of Cis-Sutlej, high land requiring irrigation by wells. See Banjar.

BANGARO MAE, a wood of the Kei islands, well adapted for masts.

BANGAR YATCHAM, a polygar chief, 60 miles N. W. of Madras.

BANGASH, the country of a people, claiming Afghan descent.

BANGDAMY, in Long. 88° 38′ E. and Lat. 24° 30′ N.

BANGHI, in Long. 83° 26′ E. and Lat. 24° 40′ N.

BANGHI. Tam. A heavy mail post.

BANG-KALLEE, a river of Chittagong.

BANGKWANG a province of Banca. See Tin.

BANGLES. Anglo-Indian.

Bangreean	... Hind.	Gazloo	... Tel.
Wallaeel	... Tam.	Kadiam	... Sansc.

Glass, gold and silver bracelets, worn by women, throughout the East. The Chinese make them of a clouded or plain vitreous substance to imitate jade stone or chalcedony. They are packed in boxes containing a thousand pairs, each box estimated to weigh a pecul. Bangles are imported into and also exported from Madras. In four years, the imports were to the value of Rs. 1,147, chiefly from Bombay. The exports were in number 19,53,000, of the value of Rs. 3,078 and to Bombay and Sinde. See Armlets, Bracelets.

BANGOL-ZYE, a Baluch tribe, occupying exclusively Isprinji, but reside also at Shall and Mustang, and in winter repair to Talli near Lehri. See Kelat, p. 492.

BANGORA, a town in Long. 75° 35′ E. and Lat. 27° 40′ N.

BANGRA. Beng. Wedelia calendulacea.

BANGRA. A cloth made from the gigantic stinging nettle of the Nipal and Sikkim hills. The preparation of the fibres is the same as the "Pooah," but the Bangra is harder and stiffer than pooah, and not adapted to making ropes or nets.—*Royle.*

BANGRI BASHA, one of the Hindi dialects. See India. (*Qu.* Rangri Bhasha)

BANGRIAN. Hind. Bangles,

BANGSIRNG. Malay. Tupaia Javanica.

BANGTULA, in Long. 83° 48′ E. and Lat. 28° 20′ N.

BANGU, a river thug in Bengal.

BANGUEY, an island 18 to 21 miles long in Lat. 7° 19′ N. Long. 117° 6′ E. in the Straits of Balabac.—*Horsburgh.*

BANGAL ZYE. Beluch occupants of Isprinji. See Kelat, p. 492.

BANI. Hind. of Kotgarh, Quercus annulata.

BANI, also Kupu, a yellow earth.

BANI, L. 32° 56′ N. Lat. 71° 23′ E. in the Panjab, E. of Kalabagh the Tower station is 1,692 feet above the sea.—*Walker.*

BANIA. Hind. Also pronounced Vania as the b and v are frequently substituted for each other in many dialects of India; this sect, for instance, being called Bania, or Wania, but known to the British as Banians, or Banyans. They are a hindu people of the Vaisya or Chetrya castes following retail trade, but the Marwarri Rajput also adopts the title. Of all hindu sects the Bania abstains the most rigidly from eating flesh: hence probably is derived the term Banyan day on board ship;

the ration of that day, which when on full allowance occurs once a week, including no meat.—*Hindu Infanticide, p.* 174. See Balaji. Tripati. Jam.

BANIAN TREE, Ficus Indica. See Banyan tree.

BANIHAL, a pass leading from Tibet to Kashmir.

BANISODA, in Long. 80° 30′ E. and Lat. 24° 50′ N.

BANIWAL. Hind. A sub-division of the Bahangi sect.

BANJ. Hind. Barren, properly, Banjh Hind, barren as a woman.

BANJ. Arab. Henbane. But the term is, as a prefix, applied to various potent drugs as Banj-i-rumi, Conium maculatum; Banj-i-dashti Datura.

BANJAR. Hind. Waste land generally; Land out of cultivation.

BANJAR, a river in Borneo occupied by the Kyan race, its banks and vicinity are said to yield gold and diamonds. See Kyan, p. 567.

BANJARA. Hind. A numerous race, mostly migratory and many of them predatory, met with from Kashmir to Cape Comorin, but all acknowledging a common origin. Those in the South of India are often styled Lambari, but their own name amongst themselves is Gohur, and wherever met with, those of Southern India claim to be of Rajput origin, and assume the titles of Rahtor, Chauhan, Powar and Tuwar. There they have been largely employed as grain dealers, searching through the hamlets, and conveying the grains on bullocks to the marts, returning when the sea coast is near with salt. They have also latterly been great cotton carriers. Their camp is called a Tanda, and it is a grand site, to meet the magnificent bullocks of a large Tanda numbering up to some thousand. They have small hair cloth tents, made of cumblies. They are not of any sect of hindus and seem to worship the leading bullock of the Tanda, a magnificent creature which moves steadily along, with tinkling bells to guide the ear. They are expert lasso throwers. The increase of roads and railways is depriving them of avocation, and they are now given to dacoity and many of them are met with in jails. Professor Wilson, writing of those in northern India, says that they are of hindu and mahomedan religions but acknowledge a common origin and live especially along the foot of the mountains from Hardwar to Gorakpur and form various sub-divisions. The most migratory are the Bahurupa Banjara of whom there are five branches, with four of the Rajput names. The fifth is the Ba, or Ban and is descended from a Gaur Brahman. Each of these is infinitely subdivided some of these Banjara have the privileges of *Charan* and *Bhat*, their persons being sacred and accepted in guarantee of engagements, the origin of these people is very obscure.—*Wilson's Glossary. Baron Hugel's Travels in Kashmir and the Punjab, p.* 81.

BANJAR, Ooti, and Pasir, three rivers of Borneo occupied by Kyans.—See Kyans, p. 567.

BANJER. Jav. an inundation.

BANJARMASSIN, a province of Borneo, in the Eastern Archipelago.

BANJHKORA, a tract of country near the Yuzufzai possession, along with Buner, Bajawar Astor and Swat.—See India, p. 336.

BANJI. Hind. Quercus incana, heavy oak.

BANJIGA. Can. A lingaet shop-keeper. See Linga-Balja vadu.

BANKA. Sans. Telugu, any viscous plant, and applied to several species of different genera. Banka-baddu, Vitis Linnæi Wall. B. Chettu, Zyzyphus, sp. B. Nakkera Cordia, myxa, L. and B. pavili, species of Portulaca. Fl. Andh.

BANK. Under the different governments of ancient nations there were doubtless treasuries, where the revenues of the country were received and disbursed. The ancient Hebrews paid taxes, and so did all nations for the support of the authorities, who were placed over them as their rulers. Such collections were then stored, whether in kind or in currency, and distributed according to the wishes of those who were exercising authority, within their territories, by officers who may be styled either treasurers or paymasters. But banks and banking as now do not seem to have existed in ancient times. The Latin words *Argentarii Mensarii* and *Nummularii* have been twisted into an analogical interpretation, of which they are not strictly susceptible. These words are derived respectively, from *argentum*, which means silver, the second is derived from mensa a table, and nummus was a piece of Roman money. Upon this fabric according to some banking is made to date long anterior to the Christian era. But Bank is a borrowed word, as found in every language of modern Europe. Its primary signification is a heap, or an extended ridge, as the bank of a river or a mound of earth, and the application of the word followed, from the fact, that there were heaps of silver usually kept in banks. In French it is Bangue. In German, Banken. In Swedish, Banck. In Danish, Banke. In Italian, Banco. In Spanish and Portuguese, Banca and banco. In Saxon, Banc. In Armenian, Banoq. The word in all these languages, shows that it is the same all over Europe. Another derivation however is from banca, a bench, the bench on which money dealers sit, and from it is the

English bankrupt; as, on any case of insolvency, the insolvents' bench was broken; there was a metallic currency, to some extent in use, among the Grecians, Romans and Assyrians. But when we seek to discover an Institution similar to that, of the modern Bank, we utterly fail in the effort. That there were treasurers and money changers in existence, we have ample proof on the pages of sacred writ and doubtless they engaged to an extent in money dealings, but a money changer and a banker are entirely different persons. To change money and sit at a table all day, requires neither skill nor talent and but very little effort. But to do the work of a Banker, demands a thorough acquaintance with the laws of trade, a knowledge of the exact valuation of various coins and currencies, in circulation throughout the world, and a very keen insight into human nature. A good banker necessarily needs to be an adept in several things. He requires not only all the knowledge, usually possessed by skilful and successful mercantile men, but he must also possess some kinds of information, which are special to his profession. Banking as understood by the moderns, took its origin during the existence of the Florentine re-public in the middle ages, and from that period, Banks have been steadily springing up, in every country and kingdom in Europe. Mr. Cooke says, the Bank of Venice is the most ancient. It commenced business in 1157. The Bank of England was first chartered in the reign of William and Mary in 1693. The first Banks in India were started respectively at Calcutta, 1770; at Madras the Carnatic Bank in 1791, and at Bombay only as late as 1840. The present Bank of Bengal was opened for business on the 1st May 1806. It is, therefore, the oldest and most successful, of all the Banks that have ever existed in India. The Government of India being the owners, of a large number of its shares, it has always received the vigilant supervision of various officers of Government. Since it commenced operations it has cleared and paid as dividends, the amount of its own present capital, to its shareholders. Its business has been wholly directed to swell the receipts of its proprietors. Taking year by year from its establishment, its average rate of dividends has been about twelve per cent. per annum. One year it paid as high as twenty, another year they fell to two and a half, when heavy frauds had taken place. There are now something like a dozen Banks, in various parts of India in Madras, Bombay, Calcutta, Rangoon, Singapore, Hong Kong and many towns in the Indian provinces, and great houses of hindus of the Vais and Bhattya castes, are also doing a large banking business. Good trustworthy Banks are of immense benefit to the people of a country. They are like reservoirs, collecting the accumulated capital of communities and distributing it for beneficial purposes. The timorous and inactive capitalist, is able to furnish means, for the prosecution of various enterprises, undertaken by men of vigour, of courage and untiring industry. Banks are usually classified under three heads, as 1st, Banks of deposit, 2d Banks of discount, 3d, Banks of circulation, and there is supposed to be, a difference between a public and a private bank. This difference however exists more in theory than in reality. Those in which the Indian Government are interested are called public, while those not so conducted are said to be private, and depend on the honor, reputation and good name, of men in high position in private or public life.—*Rangoon Times Newspaper.*

BANKAHU. Hind. of Hazara, &c., Vitex negundo.

BANKAL, a weight in the Straits of Malacca, at Singapore, 835 or 836 grains, at Penang somewhat less.—*Simmonds.*

BANKA PALEMBANG. See Banca Islands, Tin.

BANKAT, also KATKALEJI. Hind. Guilandina bonduc.

BANKAU. Hind. of Hazara, Quercus annulata.

BANKEE, in L. 85° 31' E. and L. 22° 55' N.

BAN-KHA. Burm. In Amherst, a peculiar kind of wood, color grey, used for house posts, and other common purposes.—*Captain Dance.*

BANKHOR, also BANAKHOR. Hind. Pavia indica, the Indian horse chesnut.

BANKIMU. Hind. of Sutlej valley, Corylus lacera, the hazel.

BANKOKUTTO, a tin mine in Banca. See Tin.

BANKS. In the oceans on the south of Asia are several extensive banks full of pearl to sailors, but from which fishermen draw large quantities of fish, &c. one of them is termed the Asiatic, the other the Australian Bank. Up to a very recent period the submerged banks which extend from Asia and Australia furnished several articles of commerce Agar Agar, a marine lichen extensively used in China, trepang or sea slug, and mother-o'pearl shell. The Australian bank is the most productive, probably from its not having yet been so extensively worked as the Asiatic bank. The depth of water on these banks averages about 30 fathoms, deepening rapidly as the edge is approached, and shoaling gradually towards the land. And, where the earth has not risen above the water's surface great submarine banks are to be traced from one island to another.

the ration of that daed the Great Asiatic Bank.
ance occurs once
Hindu Infant SPECIOSA. Kœn. Co-si-chang,
pati. Jam.
BANI s speciosus. See Costus.
SERRA, in Long 88° 30′ E. and
tree. 22° 22′ N.

BAN KUCH. Hind. Viburnum cotinifolium.

BAN-MEHAL. Hind. the crab apple of the Western Himalaya, Pyrus baccata.

BAN MUNG. Hind. The dry sheath of the flower stalk of "moong" grass, used for string, &c.

"BAN MUNJ," leaves from the flower stalks of Saccharum munja.

BANKOK is about 27 miles up the Menam river of Siam. It is built upon an island, in Lat 13° 58′ N. and Long. 100° 34′ E. on both branches of the river, generally with 7 fathoms water, close to each side. From March to June, the river is crowded with not less than 100 junks of all sorts and descriptions, trading in the produce of the country, salt, cotton, sugar, pepper, teak and rosewood.—*Horsburgh.* See Karen, Kambogia, Ko, Siam.

BANNA. Hind. Viburnum fœtens.

BANNA. Hind. Vitex negundo.

BANNERS.

Alam	Ar.	Jhenda	Hind.
Bhaota	Hind.		

Banners are in use for the military and for designating the religious ceremonials of all the races and nations and religions of Asia. They are of various shapes and sizes, and of various colours, and the phrases so familiar to Europe as to lowering the colours and keeping them up, are in use in Asia. In India, the invocation Angriz kabhaota kaim, may the British flag stand fast, is common. The Eusufzai Affghan, in a late war, advanced against the British, with "scarlet" banners. But scarlet is a forbidden colour to mahomedans, it is unlawful for them to use it on banners or standards; and it is not known how these bigoted mahomedans so far transgressed the "traditions of the elders" in this matter.

BANNU. A district in Afghanistan west of Derah-i-Ismail Khan, whose inhabitants are called Banuche. It is called by them Bunnu Tank. Bannu is in the possession of a Dogra Rajput family to whom, since the conquest of the Panjab, the British gave Kashmir. It has a large extent of fertile soil, and an abundant supply of water, its capability of yielding a variety of produce is very great. The people are not, however, enterprizing agriculturists, and besides wheat, rice, mung, and a little sugar-cane, zir-chob, or turmeric, is the only exotic plant, which has been introduced. There is much pasture-land in Bannu on which without inconvenience to their own cattle, the natives can allow their neighbours, the Waziri, to graze their flocks and horses. Though on the same plain as Marwat, the Bannu people have a difference in costume, and are smaller in statue than the Marwat, people. The Marwati is generally clad in coarse white linen, in much the same manner as the Patans on the banks of the Indus. The people of Bannu wear dark clothing, and are fond of lunghis, with ornamental borders. Both in dress and appearance they assimilate with the mountain tribes. They are very brave, and remarkable for entertaining an *esprit de pays.* They are eloquent in eulogiums upon their country and the exclamation, "My own dear Bannu!" is frequently uttered by them. Three or four centuries ago the high road, followed from Kabul to India, led through Bannu as we find in the history of Taimur's Expedition.—*Masson's Journeys, Vol. I. pp.* 96, 98. See Waziri

BANPHAL. Hind. Corchorus olitorius, C. depressus, C. accutangula, and other species.

BANPHAL. Hind. in Jhang, a kind of morel.

BAN RAIHAN. Hind. Melissa or Nepeta.

BANS. Beng. Hind. Species of Bambusa. The large hollow bamboo, Bambusa arundinacea, any bamboo.

BANSA. Hind. Properly Vansa, a tribe or race of the hindu people. See Ahir, Ceylon.

BANSARI, a weed in the Doab.

BAN—SINJLI also Sinjli. Hind. of Kaghan, Cratœgus oxyacantha.

BANSA. Hind. (Vasa), Adhatoda vasica.

BANSHINI-BANSH. Beng. Dendrocalamus tulda.

BAN-SHOOLPHA. Beng. Fumana parviflora, small flowered fumitory.

BANSHOONI. Beng. Ixora bandbuca.

BANSH-PAT-LAL-NUTI. Beng. Amarantus atropurpureus.

BANSH-PAT-NUTI. Beng. Amarantus lanceolatus.

BANSK. Beng. Tabasheer.

BANS KI CHANWAL. Hind. Seed of Bambusa arundinacea.

BANS KI KAONLI SAG. Dukh. Young shoots of Bambusa arundinacea.

BANSKOTTA. The Miri tribe dwell to the north of Banskotta and Lukimpur. See India, p. 338.

BANSLOCHUN. Beng. Hind. Sans. Tabasheer.

BANSPATA. Beng. Amarantus atropurpureus.

BANSWARRA, was originally part of Mewar, but became independent of it prior to the establishment of the supremacy of the British Government, who recognized it as a separate power. In 1812 the chief of Banswarra offered to become tributary to the British Government on condition of the expulsion of the Mahrattas; but no definite relations were formed with him till September 1818, when a Treaty, (No. LV.) was concluded, by which, in consideration of the protection of the British Government the Rawul agreed to act in subordinate co-operation and settle his affairs in accordance with the advice of the British Government, to abstain from disputes and political correspondence with other chiefs, to pay a tribute equal to three-eights of his revenues, and to furnish troops when required.—*Treaties, Engagements and Sunnuds, Vol. IV. p.* 177.

BANTAM, a province of Java. The first voyage made by the Dutch was in 1595, in which year their first fleet, under the command of Houtman (who had been previously employed by the Portuguese in the East India service), sailed direct to *Bantam.* At this period the Portuguese were at war with the king of *Bantam,* to whom Houtman offered assistance, in return for which he obtained permission to build a factory at Bantam.—*Raffle's History of Java,* Vol. I. p. 22. See Java.

BAN-TANDULI. Hind. Amarantus polygonoides.

BAN-TENDU. Hind. Diospyros cordifolia, wild ebony.

BANUR-KULAY. Beng. Cantharospermum pauciflorum.

BANUR-LATHEE. Beng. Cathartocarpus fistula.

BANUR-PALA. Beng. Aglaia polystachya.

BANUT, a river of Johore. See Jakun.

BANTI CHETTU. Tagetes patula, L.—R. iii. 434.

BAN USTAKI. Hind. Aloe perfoliata.

BANYAN TREE is the Ficus Indica, the Bar-ka jhar of Southern India the Arbor de Rais of the Portuguese. It throws down aerial roots, which support the larger branches and these again throw down other roots, till, as Milton wrote (Par. Lost. ix) the tree becomes

> "Such as at this day, to Indians known,
> In Malabar or Deccan, spreads her arms,
> Branching so broad and long, that in the ground,
> The bended twigs take root, and daughters grow
> About the mother-tree, a pillared shade,
> High over-arched and echoing walks between.
> There oft the Indian herdsman, shunning heat,
> Shelters in cool, and tends his pasturing herds,
> At loop-holes cut through strictest shade."

Several of these trees, have attracted attention from their dimensions. Four miles distant from Fort Saint David was one under the shade of which Mr. Ives quotes Mr. Didge as computing that ten thousand men might stand without incommoding themselves. Dr. Frayer, saw one of those admirable trees near Surat, in the year 1673. In the Botanical Gardens at Calcutta, a great Banyan tree, has been long the pride and ornament of the garden, Dr. Falconer satisfactorily ascertained it to be only seventy-five years old. People were alive a few years ago who remembered well its site being occupied, in 1782, by a Date-palm out of whose crown the Banyan sprouted, and beneath which a Fakir sat. This tree has for the last 34 years not increased in size, having been lopped under some misapprehension, and when paced by Dr. Balfour in 1863 its dimensions were identical with those of 1834, viz. 100 yards in diameter, and 360 in circumference. The banyan hardly ever vegetates on the ground; but its figs are eaten by birds, and the seeds deposited in the crowns of palms, where they grow, sending down roots that embrace and eventually kill the palm, which decays away. Had the Calcutta tree been growing in 1849 over the great palm-stove at Kew, only thirty feet of each end of that vast structure would have been uncovered. When the banyan tree embraces a date or palmyra or cocoanut tree, and the latter are seen growing out of it, this is called a marriage of the trees. These are encouraged and many are to be seen near the Kistnah river. As the Banyan tree gets old, it breaks up into separate masses, the original trunk decaying, and the props becoming separate trunks of the different portions. Lady Faulkland tells us of the Western Coast, that about eight miles from Waee is a banyan tree, covering a space of ground of 3½ acres and four acres. The shade was so complete, she could sit in the middle of the day without any covering on her head and separate picnic parties might take place under it, and not interfere with each other. There were countless avenues, or rather aisles, like those of a church, the pale-grey stems being the columns, which, as the sun fell on them, glittered in parts like silver; and here and there were little recesses like chapels, where the roots from the boughs formed themselves into delicate clustering pillars, up and down which little squirrels were chasing each other; while large monkeys were jumping from bough to bough, the boughs cracking and creeking, as they leaped.—*Hooker Him. Jour. Vol. II. p.* 246; *Ouseley's Travels, Vol. I. p.* 80; *Tennant's Hindustan, Vol. ii. p.* 31; *Postan's Western India, Vol. i. p.* 182; *Lady Faulkland's Chow-chow.* See Ficus Indica.

BAOBAB. Eng. Adansonia digitata, one near Gumer in Fasshol was seen 95 feet in circumference. Its inner bark stripped off, beaten and dried in the sun can be made into paper.

BAO CHAN. Duk. Psoralea corylifolia. —*Linn.*

BAOLI. Hind. A well: corruption of Baori.

BAORA, a predatory vagrant tribe on the Bhutti territory and western parts of Delhi.

They resemble the Kanjar and Gundheela. See Bhowra.

BAORI. H. ALSO BAOLI. H. a well.

BAP. HIND. father. BAP-RE, the British say Bobbery, an exclamation of pained surprise.

BAPAI PANDU. TEL. Carica papaya.

BAPANABURI. TEL. Ehretia buxifolia.—*R.* i. 598.

BAPCHI. Seed of a small bush found near Ajmeer; very mucilaginous, cooling and demulcent: taken in sherbet.—*Gen. Med. Top. of Ajmere, page* 128.

BAPHIA NITIDA. See Camwood.

BAPOW, in Long. 66° 50' E. and Lat. 28° 35' N.

BAPOTA. HIND. Ancestral inheritance, in Mewar, corresponding to the Watan of western India. The Jat of Mewar to any attempt to arrest from him his Bapota, would answer in the very words of Ahab king of Israel "the Lord forbid me that I should give the inheritance of my fathers" into thee. The ryot (cultivator) is the proprietor of the soil in Mewar. He compares his right therein to the a'khye d'hooba, which no vicissitudes can destroy. He calls the land his bapota, or patrimonial inheritance. He has Menu in support of his claim, in the text, "cultivated land is the property of him who cut away the wood, or who cleared and tilled it:" an ordinance binding on the whole hindu race, and which no international wars, or conquest, could overturn.—*Tod's Rajasthan, Vol. i. p.* 494.

BAPPA. Of the twenty-four Gehlote tribes several issued from the founder, Bappa. Shortly after the conquest of Cheetore, Bappa proceeded to Saurashtra and married the daughter of Esupgole, prince of the island of Bunderdhiva. With his bride he conveyed to Cheetore the statue of Vyan-mata, the tutelary goddess of her race, who still divides with Eklinga the devotion of the Gehlote princes. The temple in which he enshrined this islandic goddess yet stands on the summit of Cheetore, with many other monuments assigned by tradition to Bappa. Bappa is not a proper name, it signifies merely 'a child.' He is frequently styled Syeel, and in inscriptions Syeel Adhes, 'the mountain lord.' The Mori prince, from whom Bappa took Cheetore, was of the Tak or Takshac race, of whom *Nágnéchá* or *Nágání Mata* was the mother, represented as half woman and half serpent. the sister of the mother of the Scythic race, according to their legends. Bappa, the founder of the Gehlotes, retired into Scythia and left his heirs to rule in India. Keneksen, was the founder of the Balabhi empire, and Sumitra was the last of Rama's line. Many rites of the Rana of Mewar's house are decidedly Scythic. According to Sir H. Elliott when Mahomed bin Kasim the general of Walid overran Guzerat about A. D. 718, and advanced to Chittore, Bappa met and entirely defeated him. After this he was raised to the throne of Chittore, where his descendants still reign. After a long and prosperous reign, Bappa abdicated and departed to Khorassan. In the reign of Khoman his great grandson Mahmun, Governor of Khorassan invaded Chittore but was defeated and expelled by Khuman after 24 engagements.—*Elliot Hist. of India. Tod's Rajasthan, Vol. i. p.* 594. See Saurashtra.

BAPTISTA TINCTORIA. See Dyes.

BAPTISM is at present, a christian rite of initiation. It was designated by the primitive christians by various names; and Gregory Nazianzum mentions it as a *seal*, because, as he states, it is a preservation, or sign of security. (*Ora.* 40.) Many ceremonies are mentioned by ecclesiastical writers, connected with the rite in the early ages; such as giving milk and honey to the baptized in the east, and wine and milk in the west. The sign of the cross, which began to be used in the fourth century, is described by Lactantius, as an impregnable fortress to defend those impressed with it, and he further adds, that such the devil cannot approach.—*Milner's Seven Churches of Asia, p.* 65.

BAPULDODY, in Long. 77° 40' E. and Lat. 15° 45' N.

BAP-RE. HIND. LIT. Oh! thou father! a disrespectful address, hence the English bobbery.

BAPUNGA. TEL. Psoralea corylifolia.—*Linn.*

BAQUAIS. French of Mauritius, Pandanus odorotissimus. See Pandanus.

BAQLA, from Baqa, Arab, Beans.

BAR, an intoxicating liquor prepared in Western India, from the Calotropis gigantea.

BAR. PERS. HIND. A load: an occasion. Bar-gir Pers. Hind. a mercenary trooper, providing his horse.

BAR, Long 85° 45' E. and Lat. 25° 27' N.

BAR. HIND. OR BARGAT. HIND. Ficus indica, the banyan.

BAR. HIND. Of Murree Hills, Quercus dilatata.

BAR, solid bamboo, the Bambusa stricta.

BAR. HIND. Of Hazara Hills, the cotton plant.

BAR, in the Panjab, central sandy tracts in the Doabs. The plants growing on them resemble those found on the wastes bordering on the Caspian Sea; and most of the genera which abound in the southern steppes of Russia, have representatives on the bar. Salsolas, Salicornias, and Suedas cover every patch of saline land in the Panjab and are largely used for the manufacture of sajji, or impure carbonate of soda; kurreel (Capparis aphylla) jhau (Tamarix indica), the furash (Tamarix orientalis), ber (Zizyphus vulgaris) which compose almost the whole tree vegetation of the bar, have analogous species on the shores of the Black Sea and the banks of the Volga.

BARA. Hind. the wind; metaphorically, the Cholera morbus disease.

BARA, a river near the Khyber.

BARADARI. *barah* means 'twelve,' dari means 'a door,' a house having twelve doors, an open building like a summer house.

BARADI, the river that waters the plain of Damascus. See Damascus.

BARAGADAM Indigofera glandulosa.—*Willd.*

BARADEE, in Long. 36° 35' E. and Lat 22° 57' N.

BARAGOZA, the modern Baroach. A native of this city was in the embassy from king Pandyon to Augustus at Antioch. His name is given as Zarmano Chidus or Zarmanochegus. He accompanied Augustus as far as Athens and there committed self-immolation before the emperor.—*Cal. Rev.* 1868.

BARAH, two towns in India one in Long. 82°46' and Lat. 25°21' N. the other in L. 69° 8' E. and L 23° 11' N.

BARAHAT and Gopesvara two towns in Garhwal from which were obtained two bronze-tridents, with inscriptions of about the 7th century. See Inscriptions, p. 377.

BARAH-SADAT, a powerful tribe of Syuds on the eastern parts of the Muzaffurnuggur district, some of their ancestors served Humayun, Ferokhser and Aurungzeb.

BARAH THAKURA. Hind. Twelve petty hill states between the Jumna and Sutlej. See Baraich. Afghans.

BARAILLY, in Long. 88° 17' E. and Lat. 25° 12' N.

BARAIREE, a small river of Banda.

BARAJATI. See Khutri.

BARAK, a river of Sylhet.

BARAK, the horse on which Mahomed ascended to heaven in his dream.

BARAK, a tributary to the Brahmapootra. It is an offset from the Jeeree, which leaves in Lat. 24° 43', long. 93° 13' W., through Cachar and Sylhet; S. W. into Megna. Length 200 m. Banks low and marshy along the valley of the Cachar.

BARAK, one of the three sons of Zirak the ancestor of the Barakzye, of which tribe Dost Mahomed Khan, the ruler in 1830-1840 of Kabul was the head.

BARA LACHA, a pass in Tibet, Lat. 32° 44', Long. 77° 31'.

BARA-LACHA, a range of mountains which forms the watershed between the Indus and its first affluents, and is regarded by Alexander Cunningham as the western continuation of the Himalaya. The Eastern Himalaya divide the waters of the Tsango-po, from those of the Ganges and its tributaries. The western as well as the eastern chain separate the great hindu family of India from the Bot of Thibet. Some mixed races are found to the south of each chain; the Lahuli and Kanawari to the west and the Ghorka and Bhutani to the east. The inferior mountains of the eastern chain generally run at right angles to its axis, whereas those of the western chain, are mostly disposed in subordinate parallel ranges. There are thus two distincts and independent ranges to the south of the western Himalaya, both stretching in the same general direction from north to south-east, which may be termed the Mid-Himalaya, and the outer and sub-Himalaya,—the term Sewalik being that applied to the lowermost sandstone ranges.—*A. Cunningham.*

BARA-MAHAL. A fertile district in Southern India now known as the Collectorate of Salem. It contains soils impregnated with soda. It is an elevated plain about 800 feet above the sea.

BARA MARECA. Maleal. Dolichos cultratus.

BARAMERY, in Long. 80° 40' E. and Lat. 26°. 35' N.

BARAMOOLA, in Long. 75° 91' E. and Lat. 34° 42' N. The Baramoola pass into Cashmere leading through the valley and by which the Jhelum leaves the valley, is open all the year round for horses and foot passengers. It is in Lat. 34° 10' Long. 74° 30' and is the only pass into Cashmere practicable for an army.

BARAN, in Long. 68° 20' E. and Lat. 28° 45'. N.

BARAN. Pers. rain. Barani, a great coat.

BARANI, land moistened only by rain.

BARANI a rain-coat, so called from baran rain; an overcoat generally pronounced in southern Persia, as baroon and barooni. The Barani and Oima are overcoats the former, confined to men of some rank, is an ample cloak, with large sleeves, that shrouds the whole person, and is made according to the fancy and means of the wearer, of coarse or fine broad-cloth, of shawl, or even of velvet lined with every kind of material, from the richest furs down to the coarsest chintz, and embroidered, often very richly, with silk, gold, or silver. The latter is more commonly used, and is more exclusively calculated for riding. It somewhat resembles a lady's riding habit, fitting tight to the shape, from the neck to the waist; where it is gathered into plaits, and swells out above the girdle, falling in ample folds to the feet. It is generally made of broad-cloth, varying in quality.—*Ouseley's Travels, Vol. ii. p. 94. Fraser's Journey into Khorasan, p. 69.*

BARANGI. Hind. Clerodendron infortunatum.

BARANGIA, a genus of mammals of the family Mustelidæ, tribe Semi-plantigrada, and Order Carnivora. See Mammalia.

BARANGAN. Malay. Sulphuret of Arsenic.

BARANKI CHETTU. Tel. Butea superba. *R?*

BARANO. Hind. of Kaghan, Quercus annulata.

BARANUS. Hind. Rhododendron arboreum.

BARAPATALU. Tel. Indigofera glandulosa, *Willd.*—It abounds in the N. W. parts of Rajahmundry the same Telegu name is given to I. trifoliata.—*W.* and *A.*

BARAS. Ar. a kind of leprosy so called.

BARASAL, a town 12 miles from Calcutta.

BARISAL, a town in the district of Backerganj, in Bengal, 136 miles from Calcutta to the north of the 24 pergunnahs.

BARAS-GANTH. Hind. Birthday on which day a knot is tied on a cord kept for that purpose, hence baras-ganth, an annual knot.

BARA-SINGHA, a stag, the Cervus Wallichi.

BARASINHA DEVA. See Inscriptions.

BARAT. Ar. Marriage procession. The Shab-i-Barat, or night of record, is a mahomedan festival held on the night of the 14th of the month Shaban. In the north of India, lamps are lighted and prayers said in behalf of deceased ancestors.—*Wilson.*

BARATHAR, in Long. 84° 0' E. and Lat. 28° 30' N.

BARAT-KHAND. The channel which separates the island of Dwarica from the main land. It is filled up, except in spring tides.

BARA-WAFAT. Arab H. The great death, a solemn festival on the 12th of the mahomedan month Rabi-ul-awal, on which date Mahomed died.

BARB, a Barbary horse. See Horse.

BARBADOES, or BOURBON COTTON. See Cotton.

BARBADOES CEDAR. See Cedar: Deodar.

BARBADOES FLOWER FENCE. Eng. Poinciana pulcherrima.—*Linn.*

BARBARA, a sort of felspar used in Delhi for making porcelain.—*Powell.*

BARBARA PRECOX. R. Br. American cress, Belleisle cress.

BARBARIAN, the Barbaros of the Greeks who applied the term to everything and race, not speaking Greek and it was afterwards taken up and used by the Romans. It was a term similar to the gentile of the Jews, to whom every person not circumcised was a gentile; to the hindu, every man not twice born is a m'lechha; to the mahomedan, every man not believing in Mahomed is a kafir. To the Chinese every one not a Chinese is a barbarian. Arabs observe that Indians, unless brought young into the country, never learn its language well and they have a term to express the vicious pronunciation of a slave or Indian, Barbarat-ul-Hunud;—the barbarism of the Indian, and the Greek "Barbaros," appears to be derived from the Sanscrit Varavaraha, an outcast, a barbarian, a man with curly hair. It was Christianity which first broke down the barriers between Jew and Gentile, between Greek and Barbarian, between the white and the black. Humanity is a word which you look for in vain in Plato or Aristotle; the idea of mankind as one family, as the children of one God, is an idea of Christian growth; and the science of mankind, and of the languages of mankind is a science which, without Christianity, would never have sprung into life. Barbarians seem to have possessed a greater facility for acquiring languages than either Greeks or Romans. Soon after the Macedonian conquest, we find Berosus in Babylon, Menander in Tyre, and Manetho in Egypt, compiling, from original sources, the annals of their countries. Their works were written in Greek, and for the Greeks. The native language of Berosus was Babylonian, of Menander, Phenician, of Manetho, Egyptian. We probably owe the translation of the Old Testament, the Septuagint, to this spirit of literary inquiry which was patronised at Alexandria by the Ptolemies. The writings of Zoroaster, also, the Zend.—Avesta, would seem to have been rendered in Greek about the same time. or Hermippus, who is said by Pliny to have anslated the writings of Zoroaster, was in all obability Hermippus, the Peripatetic philosopher, the pupil of Callimachus, one of the most learned scholars at Alexandria. Ajem in Arabic, literally means foreign; but, in the southern part of Arabia, El Ajem is applied to the opposite part of the coast of Africa. Ajem by the Turks means Turkish Arabia, Persia is Beld-ul-Ajem, and the north-eastern coast of Africa, is Bar-el-Ajem The Arabs divide the world into two great bodies, first themselves, and, secondly, "Ajemi," *i. e.*, all that are not Arabs. Similar bi-partitions are the hindu m'hlecha, and the Jew and Gentile, the Greek and Barbarians, &c., &c.—*Playfair's Aden. Burton's Pilgrimage to Meccah, Vol. II, p.* 26, 254. *Muller's Lectures, p.* 84.

BARBARIC KINGS. See Greeks of Asia.

BARBER. The castes of barbers are as under in Madras.

Reddi Bummala Vanloo.	Saljara Mungala Vanloo.
Natum Mungala Vanloo.	Arava Mungala Vanloo.
Sree do do	Palay „ „
Chāta Cooroo Vanloo.	Beree „ „
Pongkanatu Vanloo.	

BARBERO, in Long. 76° 11' E. and L. 27° 35' N.

BARBERRY, is found abundantly on the Neilgherries and most of the mountain ranges, of India. Its virtues have of late been much extolled as a remedial agent in fevers, but beyond being a good tonic in weak digestion consequent on fever, it possesses no antiperiodic powers and will never be equal to quinine or the bark of the Green Heart. The Bibiree Green Heart Tree of British Guiana, is a large forest tree attaining an altitude of 60 feet and found on the rocky hill sides, on the borders of the South American rivers, and belongs to the Laurel tribe. The active principle in Warburg is not from the barberry but is extracted from the Bibiree, and forms the essence of the drops given in those severe forms of jungle fever seen at Mysore and in the Wynaad; excellent anti periodic. See Berberis, Dyes.

BARBERY, in Long. 80° 6' E. and Lat. 6° 30' N.

BARBET, Megalaima. One species of the barbet has been shot at Darjiling, but it is not common. In the Tenasserim mountains it swarms from 3,000 to 5,000 feet elevation, not higher, nor lower,—and from the first level it suddenly and entirely supplants M. lineata, the Pokoung of the Burmese. As long as day lasts, the woods amongst the Danna hills resound with its cry—piow, piow, piow, &c., &c. There is another Barbet, smaller and resembling apparently the M. indica, which is also pretty common from 1,000 to 3,500 feet; but it settles solely on the summits of the highest trees, calling out tapral, tapral, tapral, by the hour together. The greater red-headed Barbet (Megalaima indica, *Latham*, M. Philippensis, var. A. *Lath,*) gives out from its throat an incessant din, in sounds which resemble the blows of a smith hammering a cauldron and is known by the British in India as the copper smith.—*Tennent's Sketches of the Natural History of Ceylon, p.* 242. *Captain Tickell.*

BARBOSA, Odoardus Barbosa, of Lisbon, wrote the Journal of his voyage in 1516. He speaks with much precision of Sumatra.—*Marsden's Hist. of Sumatra, p.* 8.

BARBURAMU, S. TEL. Acacia Arabica, *L.*

BARCHA. HIND. Murree Hills, Quercus floribunda.

BARCHAN. POL. BARCHENT. GER. Fustian.

BARCLAYA OBLONGATA. *Wall.* Kyaghoung-loung. BURM.

BARDANES, a Parthian King. See Greeks of Asia.

BARDASIR. A large town of Kirman, on the road leading to Khorasan, lying north-east of the town of Kirman. It is also called Kawashir.

BARD, the Bardai of the Rajpoot is the prototype of the bard of the Saxon races, reciters of warlike poetry, of whom Tacitus says, "with their barbarous strains, they influence their minds in the day of battle with a chorus of military virtue." The Bards of India are the Bhat and the Charun. The Bhat are found all through peninsular India, where they are respected, though not reverenced; the Bhat and Charan of Rajputanah and Guzerat are a peculiar hindu race. The Bhat or Bards of Central India are of three sorts, the Magadha or historian; the Sata or genealogist, and the Bardi or Court minstrel, whose duty, in older times, it was to salute the King or Chief, in the early morning, wishing him long life and prosperity. Bards from their sacred character are often employed as convoys of travellers and of their property in tandahs or caravans. Throughout Rajaputanah they are regarded as a sacred order, and as the hereditary guardians of history and pedigree. They chant their own verses, or legends from the mythology of India.

The Charan like the Bhat, are a sacred race. Formerly in Malwah and Guzerat, it was usual for travellers to hire a Charan to protect them and the sanctity of his name was generally sufficient. If robbers appeared, he stepped forward waving his long white garments and denouncing in verse, infamy and disgrace on all who should injure travellers under the protection of the holy members of Siva. If this failed, he stabbed himself with a dagger in the arm, declaring that his blood was on their heads; and if all failed, he was bound in honor to stab himself to the heart. Elphinstone mentions that the Bhat and Charan of the west of India, are revered as bards and in some measure as heralds, among the Rajput tribes. In Rajputana they conduct caravans, which are not only protected from plunder, but from legal duties. In Guzerat they carry large sums in bullion, through tracts where a strong escort would be insufficient to protect it. They are also guarantee of all agreements of chiefs among themselves, and even with the government.

Their power is derived from the sanctity of their character and their desperate resolution. If a man carrying treasure is approached, he announces that he will commit traga as it is called; or if an engagement is not complied with, he issues the same threat unless it is fulfilled. Malcolm mentions that Charans, particularly of the Maroo class, who are mendicants, attend at feasts and marriages in great numbers, and are in the habit of extorting large sums, at the latter, by threats (if not satisfied) of sprinkling their blood on the parties met on this joyous occasion; and these threats have been too often carried into execution to make them be deemed idle by the superstitious Rajpoots. The Charan women are distinct from all the other population, both in dress and manners. They often reside in separate villages, and the traveller is surprised to see them come out in their long robes, and attend him for

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abon\
the Rajp chanting his welcome to their rulers of tha rans are everywhere treated by enters or leaves great respect (the highest lees esteemed than ng when one of this class *Vol. I. pp.* 67, 540. mbly,) Brahmans are *Malcolm's Central Indi* —*Tod's Rajasthan, stone's Hist. of India,* 3 *on's Sindh, p.* 302. *Vol, ii. p.* 275. *Indu Infa* ii. 135. *Elphin- Hindoos, p.* 75. *Tod's Rajasth* *Hindu Theatre,* See Bhat.

BARDUL, in Long. 76° 40' *I. p.* 39. 28° 5' N.

BARDURRANI, an Afghan tribe. S d Lat. zilbash.

BARDWAN, a very fertile province of az- gal ceded to the British in 1760. It valuable coal-fields. See Bengal.

BAREE DOAB, is that district of the Panjab in which Lahore and Umritsir are situated. It has the Sanitarium of Dalhousie, near which, is the large forest of Kala-tope. Montgomery, is a district south of Lahore, also in the Baree doab. The Doab has not less than 1,200,000 acres of untilled land, of which at least 180,000 acres are covered with jungle. The Baree Doab consists of an elevated central dorsal plateau called Ganji Bar or bald tract in the Manja or middle part. This, on both sides, makes a sudden drop, there called dhaya, down to a flat alluvial tract of several miles in width running along either river and producing tamarisk and jhand. The soil of the Ganji Bar, is intensely arid and often saline, and produces only jal and some salsalaceous plants with a few bushes of jhand.—*Cal. Rev.* See Doab. Panjab.

BAREEK ERUNDI KA. Tel. Hind. Oil of small seeded var. of Ricinus communis. See Oil.

BAREILLY, in L. 28° 22' 2 N. and L. 79° 23' 2 E. and is a large station of northern India, 152 miles E. of Delhi. The mean height of the cantonment above the sea is 693 feet. It is in Rohilcund in the N. W. Provinces. An insurrection occurred at this place on the 21st April 1816, Bahader Khan was hanged on the 25th March 1860.

BARENDA, in Long. 85° 9' E. and Lat. 24° 30' N.

BARENDRA BHOOM, a country in Hindustan.

BARENGI. Tel. Ficus ampelos.

BARFI. Hind. a kind of sweetmeat.

BARG. Pers. a leaf, hence Barg-i-murad Myrtus communis; B-i-amrit-phal, Citrus limo num, leaves; B-i-wasma Indigofera tinct leaves; Barg-i-hana, mendhi, Lawsonia Sre Barg-i-bart, Pterocarpus draco, or Calam Cho- co. oria, alba;

BARG-I-TAM BOL, Piper betel. us dra-

-*Powell.*

BARGA, a pass in the Kunanawer Himalayas leading from Sungla. This pass is little above 15,000 feet and is chiefly travelled by the Sungla people being on the direct road from that place. See Kunawer.

BARGA-BHEEMA. Sans. from barga, a company, and bheema, the terrific.

BARGE. Eng.

Barija	Ar.	Barga	Dan.
Barge	Fr.	Barka	"
Barje	"	Barga	Lat.
Bark	Eng.	Bargie	Dut.

The Arabic barija, means a large vessel of war. See Boat.

BARGAT. Hind. Ficus indica.

BARGHUBEE, a river near Peeplee in Pooree.

BARGHAT, a river of Rewah.

BARGIL. Hind. Ortolan.

BARG-I-TAMBOL. Pers. Piper betel.

BAR-GIR, a hired military horseman.

BARH, a town in North Western India, occupied by Syeds.—*Wilson.*

BARHADRATHA. According to Chevalier Bunsen, a dynasty of 17 Kings of India who ruled 220 years viz. B. C. 866 to B. C. 647 one of them, Brihadratha, was father of Jarasandha. (Bunsen, iii. 547). The kings of Magadha were of six dynasties, the first was that of Barhadratha, of the line of Pandu, the first of which was Jarasandha, a contemporary of Yudishtira and Krishna, according to Sir William Jones B. C. 3101, according to Pro- Arial Wilson in the reign of Sahadeva, B. C. prim. But according to Bunsen, (iii. 585) the or 8, emigration from the North East of the distur ve land, took place about B. C. 10,000 and it 00, at the close of the great Plutonic langua ances of the earth and climatic changes, Betwe was then that the stem of the Arian gradua e in its most general sense was formed. mans, B. C. 8,000 to 5,000 occurred the 5,000 a separation of the Arian races into Ger- ally ext laves and Pelasgians. Between B. C. B. C. d 4,000, The Irano-Arian race gradu- country ended in Central Asia. rasters 4,000, they imigrated into the Indus Th and B. C. 3,000 was the date of Zor- 3300 reform—(*Bunsen, iii.* 585).

passage of the Sutlej took place B. C. B to 3200, by emigrants towards the Saras- Bl, or modern India. The emigration was the result of a schism amongst the Aryans, one part remained in the Panjab, and worshipped Agni only and rejected Indra; B. C. 3300-3200. After this, according to Megasthenes, wars were carried on with the kingdoms on the Saraswati, for about 200 years, during which the Arian power on the Indus fell, bringing us to the year B. C. 3,100 or 3,000. About the year 3,000 B. C, therefore, the schism must have taken place, when all India, east of the Satlej adopted brahmanism and the religious views, forms, and habits of Bactria, were for ever abandoned. The monuments of the language of that period are in hymns orally repeated.

Between B. C. 3000 and B. C. 1900, the brahmanical religion was established from the land of the Saraswati to the Doab. The formation of the kingdom of Puru occurred B. C. 3000 after which, were made conquests of Matinaru, Tansu and Iliva, during which Brahma was the chief deity worshipped, castes were instituted, but the Vedic worship retained.

The kingdom of Bharata, in the centre of Hindustan followed under its third king Sahotra, this kingdom became aggressive, but it ended with Samvarama about B. C. 2,200, by the Bharata kingdom being overwhelmed by the advance of the Panchala.

A period of 300 years of anarchy ensued. From about B. C. 1900 the Panchala and Kuru became supreme, then the Pandava power. But about B. C. 1100 a bloody struggle occurred between the Kaurava and Pandava, from which a third interregnum ensued which lasted 120 years. This period of anarchy was called the Kali yoga, B. C. 986 (886?) a new realm was founded in Magadha and lasted down to Asok II. B. C. 225, under various dynasties, viz.

		B C.
I.	Barhadratha	986-647
II.	Pradotya	646-579
III.	Bimbasara	578-447
IV.	Seshanaga	446-379
V.	Nanda	378-313
VI.	Maurya	312-225

The above is from Bunsen's Egypt, pp. 590 to 592 of Vol. IV: but, at another place, he names the Barhadratha dynasty 220 years of Somapi, B. C. 886 to 647, 20 kings down to Ripunjaya. Pradrota dynasty, B. C. 646 to 579.

A. Bhattya dynasty B. C. 578 to 447 a total of 132 years.

1. Bhattiya, B. C. 578-527 murdered by his son Ajita Satru.
2. Ajita Satru, B. C. 526-495 murdered by his son Udaya-bhadra.
3. Udaya-bhadra, B. C. 494-479 murdered by his son Anu-radhaka (Munda).
4. Anu-radhaka, B. C. 478-471, murdered by his son Nagadasaka.
5. Nagadasaka, B. C. 470-447, murdered by his successor of the house of Sisunaga.

B. Seshnaga Chaitrya.

1. Seshnaga, B. C. 446-427.
2. Kalasoka, B. C. 428-401.
3. Bhadrasena 9 brothers, B. C. 400 to 379, the last of the brothers named Pinjamakha, was dethroned by Nanda.

C. Nanda and his sons.

1. C. Nanda, not a person of princely extraction, head in a revolt against Pinjamakha, captured Pataliputra and became king, B. C. 378.
2. Nanda's younger brother dethroned and murdered by Chandragupta, B. C. 313.

D. House of Maurya.

1. Chandragupta's accession, B. C. 312 to 289.
2. Vindusara, B. C. 288-261.
3. Asoka (the great) B. C. 260 to 225.

E. Partition and downfall.

The Seshnaga family descended from a mother of inferior rank: she had been the head of the dancers of a king of Likhavi at Vaisali and subsequently became his wife. Seshnaga's son is properly the first Asoka, but the brahmins from hatred towards the second, who was the great patron of the buddhists, called him only Kaka-Varna, the raven black. It was he who removed the royal residence from Rajagriha in the south to Pataliputra. He was succeeded by his eldest son Bhadrasena.

Nanda was a man of great courage who headed a commotion in his own village.

Chandragupta (Sandracottus) was present with the army of Porus when the latter was murdered by Eumenes, the general of Eudemus II. in B. C. 317. He headed the popular party and marched towards the Ganges. His kingdom extended from the Indus on the north to the mouth of the Ganges and Telingana, also westwards to Guzerat,—the whole of Aryavarta. He died B. C. 289.

Asoka, the great buddhist king was crowned at Pataliputra in the third year of his reign B. C. 258-259, and openly seceded from the brahminical to the buddhist religion. He seems to have been converted by the son of his brother whom he had murdered. He is said to have erected 84,000 buddhist sanctuaries partly temples (Chaitya) partly tumuli (Sthupa or Topes) and inscribed on rocks and pillars, earnest inculcations of buddhist doctrines.—*Bunsen iii.* 585; *ii.* 547, *Vol. IV. p.* 590 *to* 592.

BARHAI. Hind. A carpenter. The carpenters of India are mostly hindus, and with the goldsmith, stonecutter, blacksmith, or ironsmith and brazier, form the five hindu artizan classes. In the Presidency towns a few Parsees and christians are employed on the finer and more elaborate work.

BARHANDI. Hind. Microlonchus divaricata.

BARHISSU—S. Imperata cylindrica, *Beauv.* —Saccharum cyl. *R. i.* 234.

BARHOUL, a town of Rajputanah, belonging to the Bhriga-bansi Rajputs.—*Wilson.*

BARHSATIDÆ. See Semiramis.

BARI. Hind. of Kuhat, land near villages manured.

BARI. Hind. An enclosure, a tower.

BARI. See Afghan.

BARIARA. Hind. Sida cordifolia also Sida acuta.

BARI, A hindu race in Woon: in Oomraoti there are 17,240 of them a thirtieth part of the population.

BARIJ. Sans. Lotus.

BARIJAMU or Barjapu Chettu. Tel. Erythrina Indica. *Lam*, or moochy wood.

BARIKI. Tel. Adiantum lunulatum, *N. L. Burm.* also Sapium cordifolium, *R.* also Hiræa Indica, *R. ii*, 448.

BARIK TIL. Duk. Sesamum orientale.

BARILIUS RUNGOSUS. Day, a fish in the rivers below Kotagherry, called the Indian or spotted trout.

BARILLA. Eng. Span.

Kali	Ar.	Khar	Hind.
Soda	Dut.	Barriglia	It.
Kelp	Eng.	Barrilha	Port.
Soude	Fr.	Solda	„
Barille	„	Socian	Rus.
Barilla	Ger.	Barilla	Sp.
Soda	„	Applacaram	Tam.
Sajikhar	Guz. Hind.	do.	Tel.

Barilla, Kelp, Salsola Soda and Natron are all carbonates of soda. Barilla is prepared by burning sea weed and the plants growing in the marine lagoons or salt water lakes, of most of the sea-boards of S. Eastern Asia. In the Archipelago, quantities are produced by the settled populations or by migratory fishing races, and it is largely brought to India from the Persian Gulf. In India, Barilla is obtained from Salicornia Arabica, W of Sundurbuns and the Coromandel coast, and from S. Indica, W. of Malabar. The genus Mesembryanthemum is rich in alkaline carbonates, and usually frequents the sea shore. Dr. Roxburgh was of opinion that the two species of Salicornia and one of Salsola, which are extremely abundant on the Coromandel Coast, might be made to yield barilla sufficient to make soap and glass for the whole world. But it is doubtful, whether the manufacture could come into competition with the more economical processes for procuring this substance from dhobee's earth (native carbonate of soda), or from sea salt. Dr. Helenus Scott received the Gold Medal of the Society of Arts, for sending from Bombay the mineral alkali, the Saji Matti of Bengal, the Applicaram of the Tamil people, which occurs in immense quantities in many parts of Bengal, especially in the districts of Monghyr, Purnea, and Cawnpore. It contains from 40 to 50 per cent. of carbonate of soda, with organic matters, clay, sand, and oxide of iron. The salts can be extracted by washing the mineral without incineration, but the organic matter is dissolved at the same time and gives a deep brown solution from which pure crystals cannot be obtained. The firing destroys this substance, and then the solution is colourless, but care must be taken not to push the heat beyond low redness, for the alkali, at a higher temperature combines with the sand and clay, and the whole runs into a green glass, insolable in water. The earth of a large tract of unproductive land in the Puttoocottah and Trevandy talooks of Tanjore is greatly impregnated with impure carbonate of soda, and a small export trade goes on of dhobie's earth. In the years 1826 to 1830, the late Mr. Hart and Dr. Mcleod commenced working it on the large scale, and about 1,000 tons of barilla containing 25 per cent of pure alkali, and equal to the best Spanish, was the estimated produce. (*Scientific Records of the Madras Government.*) In Europe, this salt is prepared either by burning sea weeds and lixiviating the ashes, the product being termed kelp and barilla, or by decomposing common salt by sulphuric acid and then roasting, the resulting sulphate with chalk, sawdust, and fragments of iron. The mass when washed gives the Carbonate of Soda,—*O'Shaughnessy.*) The celebrated lake of Loonar, produces six principal varieties of Natron salts to which the natives give the following names. 1. Dulla—2. Numuck Dulla—3. Kupphul—4. Pappree—5. Khooskee, and 6. Mahd Khar. Dulla and Numuck Dulla are used for dyeing silks, fixing colors,—also as medicine and in the manufacture of bangles;—of Khuppul, there are two kinds, one of greater value than the other:—this salt is used in fixing the red dyes of cloth. Puppree is used in the manufacture of bangles, of which there are two manufactories near the lake. When these are in full operation, bangles are manufactured in large quantities, each man being able to manufacture from 6 to 700 daily. The eyesight of these men fail soon, owing to the entire want of protection from the glare of the furnaces.

BARING. Hind. Myrsine Africana.

BARISH. Hind. Hind rain.

BARITA VIRIDIS. See Chalybæus paradisæus.

BARJALA. Beng. Sida cordifolia.—*Linn.*

BARJURI. Bark of the root of a climber found in Rajwarra, is tasteless, one-fourth of a tola is a dose, is given to women after child-birth, in "luddoo," said to augment the secretion of milk, to relieve the after pains, and to strengthen.—*Gen. Med. Top. p.* 127.

BARKHA. Hind. of Hills and Hazara, &c., rain.

BARK. Eng.

Kusher	Ar.	Kulit Kayu	Malay.
Pattaya	Can.	Patta	Maleal.
Chal. Dekh. Guz.	Hind.	Post	Pers.
Chal	Guz.	Pattay	Tam.
Chal	Hind.	Patta	
Post	„		

The Barks, the outer coverings of trees, are largely in use in medicine and the arts in all parts of the world. In the arts, the bark of the oaks, of species of Rhus, of the Babool or Acacia Arabica, are largely used in tanning and that of one of the oaks furnishes the cork of commerce. The wattle bark of Australia is largely used, and in India that of the Acacia leucophlœa is employed as an ingredient in the arrack distillation of the country. Many of the barks of the plains of India furnish useful basts for cordage and cloth is obtained by extracting the layers of cellular tissue which form a tubular sheath enclosing the woody parts of the plants. The species of Grewia, Hibiscus and mulberry of the east Indies furnish these most abundantly as also do the Eriodendron anfractuosum and the Acacia robusta, some of them being woven into cloth. The barks of the chinchona species now introduced into India have long been employed in medicine, as also that of Michelia champaca.—*M. E. J. R.*—See Arrack; Bast: Kamut; Morus: Dyeing; Sha; Tanning: Michelia Champaca.

BARKA, a non-Aryan race of India. See India, p. 327.

BAR-KAS-A-HAN, a ghost of Java. See India, p. 355.

BARKAT. Arab. Hind. Pers. a blessing, Ap-ke-dua-ke-barkat-se, by your prayers and blessing.

BARK CLOTH. See Bast; Morus; Kamut; Sha.

BARKER, Lieut. I. N., wrote on the volcanoes in the Red Sea. Altitudes near Tadjoura groups. Bom. Geo. Trans. 1844.—On the islands of Mushakh, in Eastern Africa, when visited in 1840, with map of the Somali Coast. Lond. Geo. Trans. 1848, Vol. VIII. —On the eruption of the volcanoes of Saddle Island in 1846. Bom. Geo. Trans. 1847, 49, and 51; Lon. Geo. Trans. 1846.—On the Geographical and Geological characters of the Gulf of Tadjoura, with a chart. Lond Geo. Trans. 1849.—*Dr. Buist's Catalogue.*

BARKHAN, a district of Baluchistan, occupied by the Khetrani. See Kelat, p. 488.

BARKI. Hind. A kind of iron.

BARLERIA, a genus of plants of the natural order Acanthaceæ, nine of which are mentioned by Voigt and Wight gives figures of five, as growing in the S. E. of Asia.

bispinosa
ciliata
cœrulia
cristata
cuspidata
Courtallia
dichotoma
Hochstetteri
polytrichæ
longifolia
prionites
nitida
obovata
hirsuta

Some of these are cultivated as flowering plants. B. Roxburghii grows in the northern parts of Bengal. B. Cristata, is a large very ramous shrub, found in gardens about Calcutta, in the Panjab and wild in the forests of Sylhet.—*Roxb.*

BARLERIA CŒRULIA.—*Roxb. iii.* 39.

Dasi… … …… ……Beng.	Niilambaram…… …Tel.

This is a flowering shrub, cultivated for the sake of its numerous large and beautiful light blue flowers. It is a native of the moist, shady valleys amongst the mountains of the Northern Circars, Bengal, Nepal and Burmah. —*Roxb. Vol. IV.*

BARLERIA DICHOTOMA. Roxb. is the Sada Jatee of Bengal —*Voigt. Wight's Ic.*

BARLERIA LONGIFOLIA.—*Linn.*

The root.

Neermoolie vayr …Tam.	Neergobbi vayroo Tel.
Gooshura … … …Hind.	Itchoora…… ……Sans.

The root of the long leaved Barleria has got its Tamool and Telugu names from being generally found growing in moist situations. It is supposed to have virtues similar to the Moolli vayr.—*Ains. Mat. Med.*, *p.* 39.

BARLERIA OBOVATA.—*Linn.*

B. buxifolia.—*Roxb.*

Karas Kulli… Maleal.	Nalla-mulu-goranta.. Tel.
	Tella-mullu-goranta. Tel.

BARLERIA PRIONITIS.—*Linn. Rheede, Roxb. W. Ic.*

Justicia appressa.—*Forsk.*

Koletta vitla … Maleal.	Mulugoranta……… Tel.
Shem muli …… Tam.	Paehcha mulugoranta. Tel.
Konda gobbi …… Pel.	

BARLERIA PRIONITIS.—*Linn.*

Shemmoollie elley. Tam.	Moollooghorunteh … Tel.
Kanta-jatee … Beng.	Kooruntaka … … Sans.
	Mooloo govinda … Tel.

One of the most common and at the same time most elegant of the small shrubby plants of India. It is in flower all the year round and every soil and situation seem to suit it equally well. The juice of the leaf is slightly bitter, and rather pleasant to the taste, and is a favorite medicine of the Tamool practitioners, in those catarrhal affections of children which are accompanied with fever and much viscid phlegm; it is generally administered in a little honey, or sugar and water.—*Ainslie's Mat. Med. p.* 111.—*Roxb.*

BARLERIA PURPUREA. A shrubby spreading plant, with opposite, sub-rotund nearly sessile leaves; spines in axillary pairs longer than the leaves; flowers solitary, large, of a beautiful pink colour.

BARLEY.

Shair, also Dhourra. Ar.	Dasawri…… ……Hind.
Shair…… …… … … „	Orzo ……………… It.
Ryg……………………Dut.	Hordeum………… Lat.
Orge ……………………Fr.	Ujow …………Panjab.
Gerstengraupen……Ger.	Jow………………… Pers.
Krithe of Diosc … …Gr.	Fatachmes………
Jow, or Jao ………Guz.	Cebada……… ………
Shoreh ………………Heb.	Barley Arisi………Tam.
Jow, or Jao…………Hind.	Barley Biam ……Tel.

This grain is largely cultivated in Europe, Asia, Africa and America but there are several species, viz : H. cœleste, distichon, hexastichon, jubatum, maritinum, murinum and valgare,some or other of which are preferred in different localities. It is extensively grown in the north of India and occasionally on the Neilgherry mountains in the hill regions in the south. Two kinds are grown in Oude on light soils and not irrigated. The one kind is called 'Jau,' and is grown everywhere ; the other is called 'Dasawrie,' and is grown on the banks of rivers. It is there sown in October. Sells for 2 or 2½ maunds for 1 Rupee and in Guzerat, it was for many years one of the cheapest grains In the Panjab, in the Sutlej valley, Hordeum, cœleste and H. hexastichon are grown at an elevation of 15,000 feet, the beardless variety of H. Cœleste being most esteemed, but H. hexastachon is most cultivated there. Crawfurd speaking of the Malay Peninsula barley, Hordeum hexastichon, says it is not known to the natives, and when he pointed it out, they imagined it to be unripe grains of wheat. But the Burmese name for barley frequently occurs in their books. It constitutes one of their seven kinds of saba or cereal grasses, and its corresponding Pali name is identical with the Sanscrit name of barley. Hordeum distichon, or two-eared barley, is that commonly cultivated in England. As met with in commerce, the seeds or grains are usually enclosed in the Paleæ or husks : denuded of these they form "Scotch or pot barley ;" when rounded they constitute "pearl barely," and this again reduced to powder is called "patent barley."—*Mason. Hassall.*

	Barley of Nepaul husked like Pearl Barley.	Barley of Bombay Bazaar unhusked.
	per cent.	per cent.
Moisture	12·90	8·00
Nitrogenious matter	11·46	10·94
Starchy matter ...	72·30	77·14
Fatty or oily matter	1·25	1·65
Mineral constituents (asb)	2·09	2·27
Total...	100·00	100·00

Cat. Ex. 1862. *Hassall ; Mason's Tenasserim. Faulkner. McCulloch's Commercial Dictionary. Cleghorn's Panj. Report.* See Hordeum ; Japan.

BARLOW, Sir George, a Bengal Civilian, succeeded Lord Cornwallis as Governor General. He was afterwards Governor of Madras, and during his administration, the officers of the Madras Army mutinied.

BARNAK, an opprobrious name given by the Turks to their Christian converts. The word is derived from Burmak, "to twist," "to turn."—*Burton's Pilgrimage to Meccah, Vol. I. p.* 33.

BARMI. HIND. Taxus baccata

BARNA. HIND. Cratævia tapia.—Also C. religiosa

BARNES, Sir Edward, a distinguished officer of the British Army who was Governor of Ceylon, in 1820.

BARNES, G. C. died 1864. of the Bengal Civil Service, was an able energetic officer. He was intimately acquainted with the policy and Government of the Patiala, Jheend and Nubba Rajahs, who stood faithful to the British Government during the storm of 1857, and whose defection, it is no exaggeration to say, would have been fatal to our power in the Punjab and have rendered the siege of Delhi impossible, if indeed it would have left us a foot of ground in all North-Western India. The fidelity of those chiefs was secured by Mr. Barnes' firm and conciliatory bearing and administration ; and throughout the troubles he showed himself a man of the first class. The appreciation of his high abilities by the Indian Government was manifested by his appointment to officiate as Secretary in the Foreign Department. The climate of Calcutta immediately undermined his health and energy.

BARN ISLAND, called Square or Passage Island by the French, lies in the Straits of Singapore. It is moderately elevated, and covered with trees.

BARO. HIND. Acacia elata.

BAROACH in Long. 73° 8' E. and Lat. 21° 47' N. It is matter of history that Augustus, Emperor of Rome, when at Antioch received an embassy with letters from king Pandyon of ancient Dravira. The embassy gave valuable and curious presents, amongst others a man without arms, a serpent ten cubits long. In the letter, the king described himself as holding sway over six hundred kings, and asking the friendship of Augustus. In the embassy was an Indian named Zarmanochegus, from Baragoza or Baroach, who accompanied Augustus to Athens and there, as Calanus had done, committed self-immolation before the emperor. His tomb, known as the Indian's tomb, was to be seen as late as Plutarch's time. See Pandiya.

BARODA, in Long. 76° 49' E. and Lat. 25° 31' N. It is the chief town or capital of Guzerat over which the Gaekwar family ruled. This family, sprung in 1720 from Damaji Gaekwar, Sirdar Bahadur. He was an officer under Khandi Rao Holkar and the family ruled till the treaty with the British in 1802. The town has about 300,000 inhabitants. The ancient name of Baroda is Chandanavati, having been, it is said, founded by Chandun, Raja of the Dor tribe of Rajpoots, not unknown to legendary lore. Like all ancient cities of India it has borne various names. Chandanavati 'the City of Sandal-wood' was changed to Veravati, or 'Abode of Warriors;' and again to Burpotra, or 'Leaf of the Bur,' perhaps from some fancied resemblance in its circumvallation to the shape of the leaf of the sacred tree. From this the transition to Baroda was simple, and the Guicowars seem inclined to let it rest under its present designation.—*Tod's Travels, p.* 245. See Kols, p. 637; Inscriptions; Mahratta Governments in India.

BARODE, two towns, one in L. 73° 0' E. and L. 22° 22' N, the other in L. 75° 54' E. and L. 23° 47' N.

BAROMETER, a philosophical instrument for measuring the height of the air. The following table shows the mean altitude of the barometer at some remarkable places and elevations in India.

Places.	Feet in height above the sea level.	Barometer mean.
Level of the sea,......	00,000	30·00
Calcutta, (*Chandpal ghat*)...	15	29·893
Titalya	275	29.570
Benares	300	29·464
Sharunpore......	1013	28 766
Seringapatam	2412	27 568
Chira Punji	5000	26 900
Nepal Residency,......	4400	25·330
	5000	24·797
Darjeeling	6957	23·408
Ootacamund, Nilgiris	7221	23.054
	10,000	20·499
2 miles.	......	20·290
	15,000	16·941
3 miles.	......	16·680
	20,000	14·000
4 miles.		13·720
5 ditto.		11·280

Colonel Sykes tells us that in the Dekhan, the day tide of the barometer is lowest at sunrise, highest at 9-10 a. m. and lower at 4-5 p. m. In the night tide the maximum is at 9-10 p. m. and is higher than at 4-5 p. m.—*Sykes. O'Shaughnessy, p.* 18.

BARON DE BODE, a German noble, who travelled in Arabistan and Luristan, and published a book of travels.

[illegible] a place of some trade on the [illegible] coast of Sumatra, in Lat. 1° 56' N. Its principal exports are camphor and benzoin. Its excellent camphor known as Baroos camphor is much prized by the Chinese.

BAROS, Tapas and Singkel, three Dutch settlements on the north-west coast of Sumatra, south of Achin. See Acheen.

BAROSMA. The leaves of various species are known in the Calcutta bazaar as Buchu, and may be used in infusion and decoction for Uva Ursi.—*Beng. Phar. p.* 422.

BAROZA, a gum resin. See Gandabaroza.

BARPHULI. HIND. of Kaghan, Euonymus fimbriata or E. Hamiltonii.

BAR PUSHTUN, also B'R PUSHTUN, the upper or higher or western Afghans, dwelling west of the Khyber pass.

BARPYAL, HIND. of Sealkot, land left for a year fallow after an exhausting crop.

BARQANDAZ. HIND. PERS. or Burkandaz an armed policeman: a matchlockman.

The word is a compound from Barq. Pers. andaz, literally lightning thrower, a peon armed or unarmed.

BARRA. HIND. a rope used on the Banta Chaudas day, the 14th of the Kooar Sudi.—*Ell*,

BARRACKPORE, a military and civil station, a few miles from Calcutta. It has a country house of the Governor General.

BARRACKS for soldiers in India are built of stone or brick and those of Burmah and Singapore are of wood, raised on piles above the ground. Barracks generally, have hitherto been ground storied, but latterly, the principle has been adopted, of building them of two storeys with verandahs, and using the lower storeys for day purposes.

BARRADA, the Chrysorrhœa or "Golden Stream" of the ancient geographer is the river of Damascus, which, as soon as it issues from the cleft in the mountains, is immediately divided into three smaller courses. The largest, which is the middle one, runs directly to the city, and is there distributed to the different public fountains, baths, and cisterns, whilst the other two branching off right and left, contribute mainly to the luxuriant vegetation which adorns the environs. South-east of the city their scattered waters unite again into one channel, and after flowing towards the eastern hills for two or three hours, are finally lost in a marsh which, from one side view, appears like a small lake. Well may Damascus be called El Sham Shereef, the noble and beautiful." —*Robinson's Travels, Vol. II. p.* 115.

BARRAL. HIND. Artocarpus integrifolia, Jack tree.

BARRAL. HIND. Himalayan sheep, the Ovis ammon; the wild snow sheep of Kamaon and Garhwal. See Capra. Ovis.

BARM RIVER is situated about 80 miles south of Labuan.

BARRAM, a river of Borneo. See Kyans. p. 567.

BARRAMUTTEE, in Long. 74° 41' E. and Lat. 18' 11' N.

BARRA SINGHA. HIND. the Sambar, Cervus Wallichii, literally twelve horns.

BARRE BACH-CHALI. Vitis setosa.—*Wall.* Cissus setosa. *R. i.* 410.

BARREE, three towns in India one in L. 78° 11' E. and L. 23° 4' N. One in Long. 77° 53' E. and Lat. 27° 3' N. One in Long. 77° 34' E. and Lat. 26° 40' N.

BARREN ISLAND, in Lat. 12° 16' N., Long. 4° 24' W. from the south end of Junk-Ceylon by chronometers, and in Long. 93° 54' E is a volcano of small extent and covered with trees except near the crater. It is a conspicuous object and white scoriæ are always visible and sometimes smoke is to be seen, but smoke was not issuing when we passed in April 1863, through the Bay of Bengal.

BARRI. HIND. A flower garden.

BARRIER REEFS. See Coral. Polype.

BARRIGLA. IT. Barilla.

BARRINGTONIA, a genus of plants, of the Nat. Ord. Myrtaceæ and Sub order Barringtonieæ, three species of which acutangula, racemosa and speciosa occur in India and the Archipelago, and Dr. Mason names a white flowered species of Baringtonia in the Tavoy and Mergui jungles with drooping spikes of white flowers three or four feet long; and which would be much admired if introduced into the cities. The leaves are very large and lyre-shaped, and both flowers and foliage would contrast well with the other trees around it. —*Mason.*

BARRINGTONIA ACUTANGULA, *Gærtn.*

Stravadium rubrum —*D. C.*
Meteorus coccineus.—*Lourier.*
Stravadium coccineum.—*D. C.*
Eugenia racemosa —*Linn.*

Kyal-tha	BURM.	Kadami...	TAM ?
Samaudar Phal....	HIND.	Kadami......	„ ?
Ijjal	„	Tiwur...	BOMBAY
Hijjal,.....	„	Kanapa Chettu... ...	TEL.
Ella-midella-gass .	SINGH.	Kanagi........	„
Sjeria Samstravadi.	MAL.		

This large handsome tree with dark scarlet colored flowers, in appearance is like a well shaped, regular middle sized oak—it flowers about the beginning of the wet season. It is met with in the hotter parts of Ceylon, up to no great elevation. It grows in Saharunpore, the Morung hills, Bengal, Chittagong, in both the peninsulas of India, and is plentiful in the Tharawaddy district. The wood by one account is of a red color, hard, and of a fine grain, used in constructing carts and equivalent to mahagony. By another account a tolerably good wood but tough to work, not recommended, being short grained. Dr. Mason says it is very abundant in the Tenasserim forests, of which it is a great ornament. The seeds are used in native medicine. —*Drs. Royle*, 216. *O'Shaughnessy*, 337. *McClelland. Birdwood. Mason. Honigberger*, 241. *Voigt. Roxb. ii.* 635, *Useful Plants. Elliot. Th. En. Pl. Zeylan. ii. p.* 119. *Rohde. MSS.*

BARRINGTONIA RACEMOSA, *Roxb. W. and A : W. I.*

Butonica sylvestris alba.—*Rumph.*
Eugenia racemosa.—*Linn.*

Samudra pu....	MALEAL.	Deyamiddella......	SINGH.
Samstravadi.....	„	Samudra pallam.....	TAM.

This stout timber tree is a native of Ceylon where it grows in the warm moister parts of the island up to an elevation of 1,500 feet, also the Moluccas, Penang, the delta of the Ganges and Malabar. Its root is slightly bitter, and is considered by the hindus to be aperient, cooling and febrifuge.—*Flora Andhrica. Voigt. Thw En. Pl. Zeylan.* 119. *Roxb. ii.* 634.

BARRINGTONIA SPECIOSA, *Linn.*

Butonica speciosa, *Lam.* | Maumea Asiatica, *Linn.*

Kayai-gyee....BURM.

This large beautiful tree is a native of Ceylon on the sea shore between Galle and Matura; of the Tharawaddy Districts of the Pegu forests, the Tenasserim Provinces, the Malay Archipelago, Singapore, the Moluccas, and the South Sea Islands It is very plentiful in Pegu. Its wood is red, hard, of a fine grain, and equivalent to mahogany and used in making carts. Ainslie says its seeds are employed in Java for intoxicating fish.—*Drs. O'Shaughnessy, page* 337. *McClelland. Roxb, ii.* 636. *Voigt.* 51.

BARRISTER, a trained member of the legal profession, permitted to plead before the Judges of Her Majesty's High Courts of Justiciary at Madras, Bombay and Calcutta, and before the Judges and Magistrates of local Courts. These and another body styled Pleaders, are permitted to appear before the Judges of Provincial Courts and in the High Court when sitting as a Court of Appeal.

BARRI TUAR. HIND. Cajanus Indicus.

BARROW, a monumental heap erected over the dead of the Celtic and Scythic races. The Romans styled this a tumulus. But it is not known that any such have been found south of the mountain range that runs from the Caspian sea to China. Raised to a considerable height, the barrow was a noble and has been the most enduring sepulchral monument. In such, the remains of the departed were placed on the surface of the ground, and the earth heaped up. See Burial Ceremonies. Cairns.

BARU ZAI, an Afghan tribe N. E. of Dadar. See Kadjak.

BARSAT. Hind. the rainy seasons, also rain.

BARSATI. Hind. Scrofulous sores which break out on horses, in the rainy season.

BARSI, a town in Long. 75° 45' E. and Lat. 18° 15' N.

BART. Hind. of Kaghan, Prunus padus.

BARTAM. Malay. Eugeissonia tristis.—*Griffith.* A palm growing on the hills about Ching, Malacca and Penang, used in Penang in making mats for the sides of houses, also for thatch, and for all the purposes to which those of the Nipa fruticans are applied.

BARTANG. Plantago major.

BARTH. Hind. Hindu fast days.

BARTH, a kind of alloyed metal.

BARTHEMA, Ludovico Barthema (Vartoma), a native of Bologna who travelled in the east. He began his travels A. D. 1503 and in 1555 he visited Malacca.

BARTHOA. Hind. of Hushyarpur, Hymenodictyon excelsa.

BARTHOLOMEW DIAS had a squadron fitted out for him by John II. of Portugal and setting sail in August 1486, was the first who rounded that famous cape to which, from the storms he encountered, he gave the name of Cabo dos Tormentos, or Cabo Tormentosa.—*India in the* 15*th Century.* See Dias.

BARTHUA. Hind. Hymenodictyon excelsa.

BARTI. Hind. Panicum brizoide.

BARTONDI. Mar. Morinda citrifolia.

BARTONIA AUREA. *Loasaceæ.*—A beautiful garden flower of a yellow and white colour, opening at night, effusing a sweet odour.—*Riddell.*

BARTRIHARI. The author of a metrical Sanscrit grammar. His aphorisms are entitled Karika.

BARTTAKOO. Beng. Egg-plant, Solanum melongena.

BARTUNG. Seed of a bush, brought from Delhi, considered cooling, and astringent, used in sherbets, in diarrhœa.—*Gen. Med. Top, page* 126.

BARU, Malay; Kawal, *Javanese:* a gossamer-like substance, found at the base of the petioles of the Gomuti palm, the Arenga saccharifera. It is imported into China where it is applied like oakum, for caulking, and also for tinder.

BARU. Hind. Reed.

BARUGADAM. Tel. Indigofera glandulosa.—*Willd.*

BARUKYZE. An Afghan tribe, an offshoot from the Abdalli, one of the branches of which, the Mahomedzye, furnish the present sovereigns to Afghanistan. They number 40,000 families. See Afghan. Durani. Jallalabad. Kandahar.

BARUN. Sans. Cratævia tapia.

BARUNGI. Hind. of Hazara, Quercus dilatata.

BARUNGI. Hind. of Murree hills Quercus ilex.

BARUNGHI. Sans. See Ganta baringa.

BARUNG SADAB. Leaves of a plant from Delhi; heating and as such used in medicine to cure flatulency and dyspepsia; sells at two rupees for one seer.—*Gen. Med. Top. of Ajmere, page* 129.

BARUT, also **DARU.** Guz. and Hind. Gunpowder.

BARWOOD. See Dyes.

BARWUTTIA, is 'one expatriated,' from 'bar,' out of (bahir) and wuttun, 'a country,' and it means either an exile, or an outlaw, according to the measure of crime which caused his banishment from his country.—*Tod's Rajasthan, Vol. II. p.* 406.

BARYALA. Beng. Sida cordifolia.

BARYARA. Hind. Sida cordifolia.

BARYTA, Sulphate of.

Heavy spar ....Eng. TchwefelsauresBaryt. Ger.
Sulfate de baryte... Fr.

Occurs at Dufton in Cumberland, near Kurnool in the Ceded Districts: and at Landour.

BARZ KATUNI. Arab. Spogel seeds.

BARZAD. Hind. a very scarce gum-resin. Galbanum.

BARZHA. Hind. of Kanawar, Armeniaca vulgaris, apricot.

BARZUD. Arab. Galbanum.

BAS, in Long. 76° 10' E. and Lat. 29° 9' N.

BAS. Hind. a smell, a perfume or disagreeable odour. Basi, smelling, putrid; Badbas, bad smell.

BASAAL. Maleal. Embelia basæal, D. C.

BASALT, a rock of the older volcanic series, of a black colour and homogeneous in appearance, containing 91-2 per cent. of silica, alumina and oxide of iron. It occurs, columnar, in several parts of India in the great volcanic tract of the Dekhan, at the hill Fort of Gawilghur and on the banks of the Nerbuddah. That vast volcanic formation, extends over more than 200,000 square miles, and conceals, breaks up, or alters all the other rocks from beneath which it has forced its way.—*Colonel Sykes. Carter's Geological Papers on Western India, p.* 1. See Dekhan, Geology, Greenstone, Volcanic rocks.

BASAK. The western mouth branch of the Me-kong the great river of Kambogia. See Kambogia.

BASANT. Hind. The spring time. The Suevi, or Suiones, erected the celebrated temple of Upsala, in which they placed the statues of Thor, Woden, and Freya, the triple divinity of the Scandinavian Asi, the Tri-murti of the Solar, and Lunar races. The first (Thor, the thunderer, or god of war) is Har, or Mahadeva, the destroyer: the second (Woden) is Boodha, the preserver; and the third (Freya) is Oomia, the creative power. The grand festival to Freya was in spring, when all nature revived; then boars were offered to her by the Scandanavians, and even boars of paste were made and swallowed by the peasantry. Similarly still, with the Rajpoot, Vassanti, or spring personified, the consort of Har, is worshipped by the Rajpoot, who opens the season with a grand hunt, led by the prince and his vassal chiefs, when they chase, slay, and eat the boar. Personal danger is disregarded on this day, as want of success is ominous that the Great Mother will refuse all petitions throughout the year. In Tamul countries, on the day that the sun enters Aries, bands of twelve young women, of the non-hindu races, perambulate the streets. They have a basket of shavings which they surround, and bending low they circumambulate, clapping their hands and singing; in this they represent the twelve signs of the Zodiac, with the sun in the centre.

BASANTAGURGH, a town at the foot of the southern range of hills, running parallel to Mount Aboo. There are several ancient inscriptions in Sanscrit of date A. D. 1042. In one it is recorded Lahini wife of Vigraha, on the death of her husband, takes shelter with her brother and causes the temple of the sun in the Aravalli range to be repaired and a Baolee to be excavated.

BASANTI. HIND. a bright, pale lemon yellow colour, the favourite colour of Krishna.

BASANTI-MAIL SURKHI. Yellow colour with crimson tint.—*Powell.*

BASANT-PANCHMI. A hindu seasonal festival about the 9th February, in honour of Basanth, the spring, in hindu mythology, personified and an attendant of Kama the god of love.

BASAT. HIND. Goods, property.

BASATI. HIND. pedlar's wares, pins, looking glasses, antimony, pumice boxes, &c, &c.

BASAVA, the sacred bull of Siva.

BASAVI. TEL. the Morli of the Mahrattas, the Deva-Dasa, or women devoted to the hindu gods in the hindu temples. The Basavi women are usually devoted to the god Siva, and become prostitutes. They are called Linga or Garudu Basavi, according as they are devoted to one or other. They are called also Jogi also Morli and are married sometimes to a knife, sometimes to an idol. In many parts of the south of India, the low castes or out castes, thus devote their young women, in order that they may follow prostitution openly, under the cloak of a religious rite. It is not easy to trace the origin of this custom, but at the Mylitta festivals which were connected with the worship of Baal or Moloch the women, as slaves to the goddess were obliged to purchase exemption from being sacrificed by prostitution. Almost all the Jewish prophets down to Jeremiah complain that this service was carried on in the high places by the Jews.—*Bunsen, Vol. IV. p. 210.* See Deva-Dasa; Jogi, Morli.

BASCHKIR, a Tartar race. See Kalkas.

BASCHMAKI. RUS. Shoes.

BASDEO, a kinsman of Krishna. See Krishna, p. 545.

BASEELAN ISLAND, one of the Phillipine Islands, is high and extensive and separated by the Straits of Baseelan from the S. W. end of Mindanao. Its eastern extremity is in Lat. 6° 30' N. Long. 122° 30' E. On its S. W. side, the Maloza river disembogues into a bay of the same name, and the village of Maloza is about a mile up the river.—*Horsburgh.*

BASEHIR, a petty state near Simla. It is independent, governed by a rajah, whose dominion also extends over Kunawar; it commences a very little north of Kotgurh, and occupies the south side of the river Sutlej and the mountain slopes above it, as far east as the confines of Kunawar. The valley of the Sutlej, in the western part of Basehir, from Rampur downwards, has an elevation of little more than 3,000 feet, Rampur, 140 feet above the bed of the river, being 3,400 feet above the level of the sea. The river at the height of the rains, is an impetuous torrent of great size.—*Dr. Thomson's Travels in Western Himalaya and Tibet, page 51.* See Rampur.

BASEEPOORA, in Long. 78° 27' E. and Lat. 28° 22' N.

BASELLA, a genus of plants of the natural order Chenopodiaceæ, of which B. alba and B. cordifolia, with a variety Brubra occur in India. B. lucida is also mentioned and B. nigra is cultivated in China. The natives of the Coromandel Coast reckon five varieties of this, three of which are cultivated and two wild; the Yerra or Pota-batsalla, the Mattoo-batsalla, and the Pedda-batsalla. But Roxburgh was inclined to regard them all as varieties of one species and to think B. Japanica of Burmann, another.—*Roxb.*

BASELLA ALBA.—*Linn.*

Badrujul-abiaz ...	ARAB.	Mayal-ke baji...	MAHR.
Poi, also, Ban Poi..	BENG.	Wahlea	„
Safed poiu............	„	Vishwa-tulasi...	SANS.
Ban Safed pooin ..	„	Kalambi?	„
White Malabar night shade...	ENG.	Canjang kire......	TAM.
White Basil	„	Kukal tulasi, Batsalla-kura, Alla-batsala	TEL.
Indian Tea...........	„	Allu-Bachchali ...	„
Saffed Tulsi...	GUZ. HIND.	Pedda „	„
Bayl-ke-buthla-ke-baji.	MAHR.	Karu „	„
		Polam	„
		Tingho	„

This is a twining plant, with succulent stems and leaves. It grows all over India and Burmah, and is much cultivated.—*Faulkner. Roxb. ii. Mason. Voigt.* 322.

BASELLA NIGRA. Wight, is cultivated in China.

BASELLA CORDIFOLIA, *Lam.* B. alba *Linn. Rheede. Roxb. Vol. ii. pp.* 104-5.

Basella lucida.—*Linn.*
" Basella rubra var. B. cordifolia.

Puin-Shaq	BENG.	Buttoo-Passalei Kirai	TAM.
Pui	"	Bach-chali Kura.	TEL.
Red Malabar night shade	ENG.	Pedda bach-chali.	"
Pui	HIND.	Tige bach-chali.	"
Upo'daki	SANS.	Poti batsali Koora	"
Ma-pat-niwiti	SINGH.		

Much cultivated all over India, where its excellence as a vegetable is celebrated in the following slokam: when the upodaki appears along with its minister, the tamarind, away! away! ye other vegetables.—*Fl. And. Voigt.* 322. *Roxb. Vol. ii. p.* 104.

BASH. Turki, the head of a man. See Kazzilbash.

BASH PERS. Living, Bud-o-bash, means of living: Koosh-bash in easy circumstances.

BASHA. PERS. A hawk.

BASHEE ISLANDS consist of a chain, in the Eastern Archipelago mostly high, lying north of the Babuyan islands from Lat. 19° 58' N. to Lat. 21° 13' N. Their names are

	Lat.	Long.
		°
Balintang or Richmond Isd.	19 58	122 14
Batan or Dampiers Grafton Island	20 17½	121 57
Sabtang or Sabtan called Monmouth Island by Dampier.		
Bashee Island Bayat, or Orange Island.		

The north Bashees consist of one large and two small islands in Lat. 21° 3½' N.—*Horsburgh.*

BASHI-BAZOUK, TURKISH, irregular cavalry, called Hyta along the valley of the Tigris and at Mosul and Bashi-bazouk in Roumelia and Anatolia. They are collected from all classes and provinces. A man, known for his courage and daring, is named Hyta-Bashi, or chief of the Hyta, and is furnished with taskara orders for pay and provisions for so many horsemen, from four or five hundred to a thousand or more. He collects all the vagrants and free booters he can find to make up his number. They find their own arms and horses, although sometimes they are furnished by the Hyta-Bashi, who deducts a part of their pay until he reimburses himself. The best Hyta are Albanians and Lazes, and they form a very effective body of irregular cavalry. Their pay at Mosul is small, amounting to about eight shillings a month; they are quartered on the villages, and are the terror of the inhabitants, whom they plunder and ill-treat as they think fit. When a Hyta-bashi has established a reputation for himself, his followers are numerous and devoted. He wanders about the provinces, and like a condottiere of the middle ages, sells his services, and those of his troops, to the Pasha who offers most pay, and the best prospects of plunder.—*Layard Nineveh, Vol. I. pp.* 38-9.

BASHINA BANS. HIND. Dendrocalamus tulda, Nees.

BASHO. THIBETAN. Sweet currants.

BASI, a drink prepared in the Philippines from sugar cane.

BASI, a town in Long. 85° 33' E. and Lat. 25° 55' N.

BASIL, Ocimum basilicum and minimum. Herbs used in salads, and soups, raised from seed, require little care in the culture: almost weeds in Madras.—*Jaffrey.*

BASILISK, the Basaliscus Amboiensis, Daudin, one of the Iguanidæ of the Eastern Archipelago.—*Eng. Cyc.*

BASILEUS, a Greek title assumed by the Bactrian kings.

BASIN. FR. Dimety.

BASKANOS OPHTHALMOS, ANCIENT GREEK. Evil Eye.

BASKETS.

Tavon	BURM.	Raga	MALAY.
Corbeilles	FR.	Bronong	"
Korbe	GER.	Kuta	MALEAL.
Tokra	GUZ.	Canasta	PORT.
Tokra	HIND.	Korsinie	RUS.
Paniere	IT.	Canastas, Canastos	SP.
Bakul	MAL.	Kude	TAM.
Kranjang	MALAY.	Gampa	TEL.
Ambung	"		

In use in most countries, are made of various shapes and from such materials as the district can furnish. In India such as bamboo, rattans or canes, leaves, and midribs of the cocoanut, the date palm and the brab tree, also those of the Vitex negundo; Ferreola buxifolia, Elate sylvestris may be instanced as in use in S. E. Asia. In the Punjab, the following plants are ployed for Basket work and Wattling

Arundinaria falcata.
Arundo species.
" donax.
Bambusa stricta.
Cotoneaster obtusa.
Indigofera heterantha.
Melica species.
Parrotia Jacquemontiana.
Pinus Gerardiana.
" longifolia.
Rhus cotinus.
Saccharum sara.
Salix alba.
" Babylonica.
" species.
Tephrosia purpurea.
Vitex negundo.

BASKET, in Arracan, a measuring capacity; 106 are 30 Indian maunds.

BASL. Hind. Allium cepa, an onion.

BASLICON. Greek. Juglans regia.

BASLICUM AGRESTE. Rumph. Syn. of Ocimum sanctum.—*Linn.*

BASMA. Hind. Indigofera tinctoria.

BASMATI. Hind. The finest quality of rice, that of Kangra is celebrated; but fine rice in other districts is called basmati; it is a very white,long, thin grain, and fragrant when boiled. The name seems to be from two Hindi words, bas, smell.

BASNA. Hind. Agati grandiflora.

BASOKA. Beng. Adhatoda vasica.

BASOTI. Hind. of Kangra, Colebrookia oppositifolia.

BASPA RIVER, an impetuous stream, a feeder of the Ganges. It runs in a beautiful valley. The climate is intermediate between the dry one of Spiti and the moist one of Gurhwal.—*Cleg. Punj. Rep p.* 41.

BASRAH. Ar. The town of Bassorah.

BASSAD. Arab. Coral.

BASSADORE POINT, is the N. W. extremity of Kishm, in Lat. 26° 39' N. Long. 55° 22' E.

BASSALETGUNGE, a town in India in Long. 82° 40' E. and Lat. 26° 7' N.

BASSALOR. See Topes.

BASSARI MARA. Can. Ficus infectoria.

BASSAR. Hind. of Kanawar and along the Sutlej Capparis spinosa, European caper.

BASSAVANCOTTA, in Long. 76 of 11' E. and Lat. 14° 40' N.

BASSEE, two towns in India in Long. 73° 2' E. and Lat. 21° 49' N. in Long. 76° 8' E. and Lat. 26° 48' N.

BASSEIN (properly Wasi) a town in India, in Long. 72° 52' E. and Lat. 19° 20' N. The mouth of the Bassein river is in Lat. 19° 18' N. Long. 72° 49' E. Bassein is an ancient and now desolate city thirty miles from Bombay on the Gora Bunder river. The old Fort of Bassein was built by the Portuguese in the early part of the 16th century, it was taken after a protracted siege by the Mahrattas at the close of the 18th century, and by them, utterly devastated. What the invader left standing the weather and the ficus indica are rapidly overthrowing, and soon there will remain but a few shapeless heaps of stones overgrown with rank vegetation to show where the cathedrals and palaces of the famous Portuguese settlement once stood. A few fishermen and shikarries, alone occupy a spot once replete with luxury and power.—*Postan's Western India, Vol. I. pp.* 172, 179. *Horsburgh.* See Bheels, Kols. Bassein and Salsette were taken by the East India Company's troops, on the 28th December 1774, and Bassein was obtained in 1775 by treaty from Raghoba Peshwa, and on the 31st December 1802, a treaty was agreed to at Bassein. See Bhil, Kol.

BASSEIN, a town on the banks of the western branch in the Irawaddy Delta, in L. 16° 46' 30' N. and L. 94° 47' E. It forms one of the revenue districts of British Burmah, with an area of 8,900 square miles. The Bassien creek is subject to the bore, the creek joins the Rangoon river and China Buckne river. See Pegu. Rangoon.

BASSES. The Great Basses, called Raman-Paaj by the natives of India, is the name of a ledge of rocks nearly a mile in extent elevated a few feet above water, on which the sea breaks very high in bad weather. According to native tradition, a pagoda of brass was formerly erected thereon, but at present only a long flat rock appears, which is completely covered when the surge runs high. This dangerous ledge is about 9 miles from the shore, in Lat. 6° 11' N., Long. 81° 36' E. There is a safe channel between it and the main with about 7 to 14 fathoms. The *Little Basses* are in Lat. 6° 24½' N., Long. 81° 54' E. and 21 miles north east ½ E. from the Great Basses. They consist of a ledge of rocks a little above water with others contiguous projecting under water to a considerable distance, and straggling rocks projecting a great way from the dry ledge. It is distant from the shore 6 or 7 miles, the channel inside the Little Basses is not safe for large ships.—*Horsburgh.*

BASSIA, a genus of plants, of the natural order Sapotaceæ, of which several species, all furnishing useful products, occur in the south east of Asia and B. Parkii, Don, is an African tree—B. sericea Bl. is a tree of the Mauritius and B. cuneata Bl. a tree of Java.

BASSIA, Species. In the southern Provinces of Tenasserim, a Bassia tree is quite abundant in a few localities; and it is said to afford a timber in no way inferior to teak.—*Dr. Mason.*

BASSIA BUTYRACEA.—*Roxb. ii.* 527.

Indian Butter tree	Eng.	Yel-pote ...	Lepcha.
Falwa : Phalawar ..	Hind.		

This tree grows on the Almora hills and in Nepal, and has smallish white flowers. Its wood is of no value. Its fruit is eaten by some: the product that has commercial value is the solid oil which is expressed from the kernels, a beautiful, white solid fat, which concretes immediately it is expressed, but melts at a temperature above 120° Fahr. and in this respect it is superior to all other vegetable fats produced in India. The kernels are bruised into the consistence of cream, put into a cloth bag and a stone put on the top to express the oil which immediately hardens to the consistence of hogs' lard and is of a delicate white colour. It is used as a lubricant in rheumatism. It keeps for months. It is said that in Rohilcund sugar is obtained from this plant.—*Roxb. ii.* 527. *O'Shaughnessy*, 428. *Royle. Ill. Him. Bot.* 124. *Ex.* 1862. *Voigt.* 342. *Hooker, Him. Journ.* See Shea Butter.

BASSIA ELLIPTICA.—*Dalzell.*

Isonandra Cullenii.—*Drury.*

Pachoota..... CAN.

This majestic tree has been traced from Coorg to Trevandrum. It yields a substance which as was at one time thought, would be a substitute for Gutta Percha, but subsequent report is less favourable. The timber deserves attention.—*Dr. Cleghorn's Forests and Gardens, p* 13.

BASSIA LATIFOLIA.—*Willd.*

Mohwa............	BENG.	Poounam... ...	MALEAL.
Mohua..............	„	Maduka...........	SANS.
Mahula......	„	Ipei ?	TAM.
Mahwa Tree........	ENG.	Illupa..................	„
Broad leaved Bassia	„	Kaat Illupa...... ...	„
Mahwa..	HIND.	Epi	TEL.
Mula ?	„	Ippa.....................	„
Moho..............	MAHR.	Ippe chettu.	„

This middling sized timber tree has a trunk of 10 feet with 6 feet of girth. It grows in the mountainous parts of the Circars, in Bengal, in the Teraee, in Oudh, Gwalior, Punjab in Malwa, Nagpore and Guzerat. It is planted near the Oudh villages in groves. The tree is common all over the Bombay jungles, both on the coast and above the ghauts. It is abundant in parts of the Nurpur purganah of the Cangra district, where the two small talukas of "Mau" derive their name from the prevalence of the tree. In the Circars, it is never felled by the natives, and it is also preserved in Nagpore on account of its large fleshy flowers which are dried and eaten raw by the hill tribes and are fermented and used in distilling mahwah arrack. The flowers in the Punjab sell at 50 seers the Rupee for this purpose. The flowers are sweet tasted, and are eaten raw. Jackals are particularly fond of them. The flowers fall spontaneously as they ripen. They are gathered and dried by a few days exposure in the sun; when thus prepared they very much resemble a dried grape, both in taste and flavour. Either eaten raw or dressed, they afford a wholesome strengthening food.

Mahwa Oil is obtained from the kernels of the fruit, is an article of common consumption in India, and may often be met with under the names of Mowha or yallah oil in the London market. The cost of the oil extracted is 3 Rupees per maund. The proportion of oil yielded by native process is about half the weight of the seed; used only for burning but so much resembles ghee, or clarified butter, that being cheaper, it is often mixed with that commodity, and used in victuals, burned in lamps, and applied externally as a remedy for wounds and all cutaneous eruptions. The timber in Nagpore, is from 15 to 20 feet long, and in girth 4 or 5 feet, in the Punjab 10 feet long and 6 feet in girth and attains its full size in 80 years. The character of its wood seems to vary in different localities. In the Punjab, its wood is of a cinnamon colour, hard, close grained, heavy and durable; produces good timber for building purposes. Captain Sankey says that in Nagpore it is of a pinkish colour, and but a weak timber, while from being invariably rotten at the heart, 4 to 6 inches square of really good sound timber is all that can be reckoned on and it is eagerly devoured by white ants. In the Upper Provinces of India, he adds that the timber is more esteemed, and has been used for door and window frames. He does not class it as a building material. Dr. Gibson, however, says that the wood, particularly the large logs brought from the Baria forest and Kuperwunje hills, is extensively used for house and cart purposes in Guzerat, but seldom appears in the market in Bombay or elsewhere. It appears strong and tough. In the Upper Provinces of India, its wood is described as hard and strong and proper for the naves of wheels.—Mr. Powell says that the tree gives a good and durable wood but small, and though not abundant in the Punjab, the wood is hard and strong, and in request for naves of wheels, carriages, &c.—*Voigt, p.* 526. *Captain Sankey: Dr. Gibson; Mad. E. J. R. Elliot's Fl. Oudh. O'Shaughnessy*, 428. *Roxb. Vol. ii. p* 526. *Veg. King.* 551. *Birdwood, Elphinst. History of India, p.* 10. *Ex.* 1862. *Malcolm's Central India, Vol. ii. p.* 47. *Powell's Products of the Punjab. Cleghorn's Report on the Panjab, p.* 82

BASSIA LONGIFOLIA.—*Willde.*

Kan-Zau......... ..	BURM.	Moos	BENG.
Long leaved Bassia,	ENG.	Ennai Carrai maram ?............ ...	TAM.
Wild Sapota Tree.	ENG.	Yepa ?	TEL.
Mahwa	GUZ.	Ippa.................. ...	„
Mohe-Ka-Jhar.	HIND.	Pinna..	„
Ellupi	MALEAL.	Ippa manu	TEL.
Meegass......	SINGH.	Oodooga maram of Wynad.	
Tel-mi.........	SINGH.		
Illupa	TAM.		
Elupa......	„		

This tree grows in the hotter parts of Ceylon, especially in native gardens, in Coimbatore, on the Malabar coast, in the Wynaad and in the Bombay forests north of the Goa border. It is a large tree, a good deal like Bassia latifolia, but its leaves are narrow, and its flowers much more fleshy. It is a native of the Peninsula of India, and is found in plantations along the southern coast of Coromandel. It flowers during the hot season in the month of May, and the seed ripens in August and September. The oil (Epi oil, Epi nuna, TEL. Elloopeo yeànai, TAM.) stains linen or woollen cloth as animal oil does, while the fatty substance of the Bassia butyracea possesses no such property but when rubbed on cloth leaves no trace behind. The following were given as the economical uses of the Bassia longifolia, by the Rev. Dr. John of Tranquebar. The oil pressed from the ripe fruit is used by the natives as common lamp oil. It is a principal ingredient in making the country soap and keeps therefore often the same price with the cocoanut oil. It is to the common people a substitute in place of ghee and cocoanut oil in their currries and other dishes. They make cakes of it, and many of the poor get their livelihood by selling these sweet oil cakes. The cake left after the oil is expressed is used for washing the head, and is carried as a small article of trade to those countries where these trees are not to be found.

The flowers which fall in May are gathered by the common people, dried in the sun, roasted and eaten as food. They are also bruised and boiled to a jelly and made into small balls, which are sold or exchanged for fish, rice, and various sorts of small grain.

The skin is taken off from the ripe fruit as well as the unripe, and after throwing away the unripe kernel boiled to a jelly and eaten with salt and capsicum.

The leaves are boiled with water and given as a medicine in several diseases to both men and cattle.

The milk of the green fruit and of the tender bark is given also as a medicine.

The bark is used to cure the itch.

The wood is as hard and durable as teakwood but not so easily worked, nor is it procurable of such a length for beams and planks, except on clay ground where it grows to a considerable height, but in such a soil does not produce so many branches and is less fruitful than when in a sandy or mixed soil which is the best for it. In a sandy soil the branches shoot out near to the ground to a great circumference, and give more fruit. These trees require but a little attention and watering during the first two or three years in the dry season and being of so great use there could be plantations of them on high and sandy grounds, where no other fruit tree will grow. Mr. Rohde says that the Ippi of the Teloogoo country is valued for keels of ships and for planking below the water line. Exposed to the wind and sun in the log, it rends into strips, but it is considered a good wood for trenails for platform carts and for the more substantial parts of furniture, and it is comparatively free from the attacks of the Teredo navalis. It is procurable among the logs brought down the Godavery. In the Wynaad, it is known as the Oodagoo maram and is there an ordinary sized tree; its wood being much used on the Malabar side for building. Dr. Wight says it is a light colored, hard and durable wood nearly equal in these respects to teak, but much smaller. In Coimbatore it is much used in the construction of carts, where great strength is called for. In Malabar, where it attains a large size, it is used for spars. Dr. Cleghorn describes it as a good wood for trenails. It grows in the northern province of Ceylon, and its wood which is said to last from 25 to 80 years, weighs 61 lbs. to the cubic foot. It is there used as keels for dhonies, for bridges and in house building. The seeds contain about 30 per cent. of oil a bright yellow color, 12½ lbs. of seed in the ordinary native rude way of expressing, produce 2 English gallons of oil. The oil or its seed may form an important article of export as a putty oil. It makes excellent candles and soap. Its chief use is, however. for burning in lamps, and when fresh, as a substitute for butter in native cookery. In medicine, the oil is used externally to cure cutaneous disorders ; and the leaves, milk of the green fruit, and bark, are boiled in water as a remedy in rheumatism.—*Mr. Mendis. Dr. Wight. Mr. Rohde. Mr. McIvor. Mr. Rohde. Dr. Mason. Dr. Cleghorn. Flora Andhrica, Ainslie's Mat. Medica, pp.* 209, 263. *Roxb. Vol. ii, pp.* 523, 405 *O'Shaughnessy*, 428. *Voigt, p.* 341. *Veg. King.* 501. *Thw. En. Pl. Zeyl. Vol.* III, *p.* 175. *M. E. Jur. Rept.* See Oils.

BASSIA PARKII, the Shea tree or Steatree of Africa, called also the African butter plant, has not been introduced into India—a solid oil is obtained from its fruit by drying them in the sun and then boiling the kernels in water.—*Vegetable Kingdom, p.* 501-2. See Shea Butter.

BASSORAH," was built by the khalif Omar, with the view of securing the trade of Guzerat and Sind. It is built on a creek, or rather canal, about one mile and a half distant from the Euphrates. The banks of the creek are fringed with foliage, among which are the walnut, apple, mulberry, apricot. It is called by the Arabs Al-Sura from Be-al-Sura, signifying the stony soil on which it is built. It was originally constructed for purposes of trade, and never having been the seat of sovereign power, it is not adorned with those structures which decorate the cities of the east. The khalif Omar, in the fifteenth year of the Hijrah wishing to combine the commerce of India, Persia, and Arabia, laid the foundation of this place near to the confluence of the Euphrates and Tigris. The Shat-ul-Arab empties itself at the distance of eighty miles into the Persian Gulf, and commands the navigation of the surrounding countries, with the coast of India;

and the caravans of Persia and Arabia. Hither merchants from all nations resorted for the sake of traffic—Greeks, Jews, Armenians, Banyans, and Moors. The site of Bussora is low, and from this circumstance is much subject to inundation when the river overflows its banks. From Basrah to Hormuz, the sea coast people principally live on fish and manuscript dictionaries describe the bread or food called Mahiabah or Mahiashnah used chiefly among the people of Lar; as prepared from fish, (more particularly a small kind found near Hormuz) by exposing it to the sun. Strabo and Arrian relate, that the ancient Ichythyophagi, made into bread, the fishes which they had dried and roasted in a similar manner. The region of the Ichthyophagi commenced at Malana near Cape Arabah and ended between the ancient Dagasira and the place now called Cape Jask, or more properly Jashk. Churchill's Collection of Voyages mentions that "the coastes of Persia as they sailed in this sea, seemed as a parched wildernesse, without tree or grass; those few people that dwell there, and in the islands of Lar and Cailon live on fish, being in manner themselves transformed into the nature of fishes. So excellent swimmers are they, that seeing a vessel in the seas though stormie and tempestuous, they will swimme to it five or six miles to begge almes. They eate their fish with rice, having no bread: their cats, hennes, dogges and other creatures which they keepe have no other dyet." Nieuhoff who travelled in 1662, says that about Gambroon, " the common people make use of dates instead of bread or rice; for it is observable that the ordinary food of the Indians all along the coast from Basora to Sinde, is dates and fish dried in the air; the heads and guts of the fishes they mix with date stones and boil it altogether with a little salt water, which they give at night to the cows after they come out of the field where they meet with very little herbage."—*Taylor's Travels from England to India, Vol.* I. *p.* 266. *Churchill's Collection of Voyages, Vol. II. p.* 230 (*first edition.*) *Ouseley's Travels, Vol. I. p.* 228. *Townsend's Outram and Havelock, p.* 297 See Basrah, Chaldea, Khorfaken, Mesopotamia, Tigris.

BASSORIN, See Gums and Resins.

BAST. Pers. from bastan to fasten, a sanctuary, a refuge; like the Kedish of Galilee, the Shechem of Samaria and Hebron in Judea, the sanctuaries of Koom, and the great mosque in particular, are famous places of refuge (or bast as it is termed) for all persons who have committed crimes, or fallen under the Royal displeasure; such is the sanctity of the holy Fatima's mosque, that the king himself dare not arrest a criminal who has there sought protection. The Persian custom of bast, somewhat resembles the Jewish cities of refuge, the Alsatia of London, and the precincts of Holyrood at Edinburgh. The custom prevailing in the East, of having places of asylum, owes its origin probably to the Mosaic Law concerning the six cities of refuge. Formerly the whole mahaleh, or quarter of Bidabad, was reckoned Bast, or sacred.—*Baron C. A De Bode's Travels in Luristan and Arabistan, p.* 50. See Asyla. Deut. iv. Numb. xxxv. 13.

BAST. Eng.

Sha ....Burm. | Nar. Hind. Tam. Tel.

The bast from plants is the liber or cellular tissue consisting of tough elongated vessels, which can often be separated and converted into fibrous material, useful for cordage and matting, That best known to Europe is a product of Russia and obtained from the Lime or Linden tree, the Tilia Europea, and converted into mats and shoes. In the East Indies, species of Grewia, of Hibiscus, and of Mulberry, are remarkable for this product and the Theng-ban-sha; the Pa-tha-you-sha, the shaphyoo; the Ngau-tscung-sha: sha-nee and Eegw-ot-sha are basts of Arracan. The basts of Akyab and Burmah, are Heng-kyo-sha. Damsha, Thanot-sha, Wapreeloo-sha and Sha-goung, all used in preparing cordage for boats, nets, &c.; wholesale market price, 2 Rs. 8 As. per maund and all are of the inner bark of large trees. The Sha-nee, Sha-phru and Thengban-sha of Akyab are more plentiful and used in preparing cordage for boats, nets, &c. and wholesale market price, 1 R. 12 As. per maund. The Guand-young-sha of Akyab is used for cables and strong nets, the wholesale market price being 3 Rs. 4 As. per maund, and all these fibres are much used by the inhabitants of that province.

The Cacha codie are the stems of a creeper used for tying bundles and other purposes instead of twine. The Mandrong rushes of Province Wellesley, grow spontaneously in the rice fields after the crop has been gathered, overspreading them like a second crop: its fibre is strong, and is locally used in the manufacture of rice and sugar bags, mats, &c., experiment may prove it to be adapted for the manufacture of paper.

The Mangkwang (Pandanus, sp.) is used for matting, in Province Wellesley.

The Glam tree bark is from the Melaleuca, viridiflora Malacca. The Talee trap (Artocarpus sp.) is used for fishing nets, at Hassang.

The Talee Taras, is of Singapore, and there is a bark used as twine, in Siam.

The Bark cloth of Malay Peninsula and Keda is manufactured by the Semang an oriental neg tribe and that of the Celebes (Kaili) is made from the bark of the paper mulberry. Mr. Jaffrey at the Madras Exhibition of 1857, exhibited a very powerful new bast from the Eriodendron anfractuosum. A bast or nar, from the large Australian or rather Cape tree (Acacia robusta) so common on the Neilgherries, was first used in January 1854 and has since been used for all purposes to which Russian bast is applied in gardens in Europe. The material is strong, tough, and durable also pliable when wetted ; this bast could be procured cheaply and in large quantities, as the roots when the trees are cut down throw up numerous young shoots to the height of from 6 to 12 feet in one year. The bark of this tree is also a powerful tan.—*Mr. McIvor. Mr. Jaffrey. Exhib.* 1862. *Madras Ex. Jur. Reports. Royle Fib. Pl. pp.* 80 to 237.

BASTAH AND KALLOO, rivers near Purgal in northern Concan.

BASTARA. HIND. Callicarpa lanata.

BASTARD, an Anglo-Indian term, employed to designate both plants and animals, which have resemblance to others.

BASTARD ALOE. ENG. Agave vivipara.—*Linn.*

BASTARD CEDAR. ENG. Syn. of Cedrela tuna.—*Roxb.* also ENG. Syn. of Guazuma tomentosa, Kunth. See. Cedar. CEDRELA TOONA.

BASTARD FLORIKEN. HIND. is one of the smaller species of bustard, the genus Otis.

BASTARD SAGO PALM. ENG. Caryota urens.

BASTARD TEAK, is a term applied to several kinds of trees with large leaves. It is given to the Erythrina Indica Lam or "Moochy wood" and the term *Chiri têku* is applied to several trees with large leaves—on the Nagari hills, the Yánádi give it to Dillenia (now Wormia) bracteata, W. Ic. 358, and it is given also to Butea frondosa.

BASTARD WOODS. An Anglo-Indian term applied to woods of India which have some outward resemblance to other woods : such as.

Bastard teak, Chiri Teku, TEL., applied to several kinds of trees with large leaves. On the Nagari hills the Yanadi apply it to Dillenia, now Wormia, bracteata. In Bombay it is applied to the Butea frondosa, the Ban-Teak or Ben-Teak, literally, wild teak) being the Lagerstræmia microcarpa.

Bastard Ebony, in Ceylon, is their Kadem-Beriye, SINGH., and probably a species of Dalbergia.

Bastard Cedars, of Southern India, are the Soymeda febrifuga, and Guazuma tomentosa.

Bastard Sago-palm, of Southern India, is the Caryota urens.

BASTI, H. a hamlet a village, a town, from Wyna. Hind. to inhabit.—*Elliott.*

BASTI, a Jain temple.

BASTRA HARANA. SANS. from vastra, clothes, and harana, to steal.

BASU, BENG. An honorific suffix in Bengal to Kayet families—which Anglo-Indians pronounce Bhose. See Kayet, Kyet.

BASUK, BENG. Adhatoda vasica.

BASUNTEE, BENG. Hiptage madablota.

BASWA OR BASAVA, is said to have originated the Jangam sect. See Jangam.

BASWA DEVA, a deity mentioned in an inscription at Kaira in Guzerat.

BAT. ENG.

Nukteris............ ...	GR.	Vespertilio........ ...	LAT.
Othelaph......... ...	HEB.	Taoos Pachi...	TAM.
Sham Gadhal......	HIND.	Gabbi Lal......... ...	TEL.
Bar-bhagul... ...	HIND.		

The Bat is mentioned in Lev. xi. 19: Deut. xiv, 18 : Is. ii. 20 and Baruch vi. 22, and is generally referred to as an unclean animal or as illustrative of unsightly things. It is of the Vespertilionidæ, 47 of which are known in Southern Asia, and of the creatures classed by the Anglo-Indians as bats may be mentioned those of the genera Pteropus, Vespertilio, Rhinolophus, Hipposideros, Rhinopoma ; Dysopus Nyctecejus, Kerivoula.

In Ceylon, some bats, as Rhinolophus affinis *var*, rubidus, Kelaart ; Hipposideros murinus, *var* fulvus, Kelaart ; also H. speoris *var* aureus, Kelaart have brilliant colours ; bright yellow, deep orange and a rich ferruginous brown inclining to red. The Pteropus Edwardsii, Geoff, is eaten by natives, and its flesh is said to resemble that of the hare.

Nine species of bats were sent by Captain Hutton from Missouri, of which four were European and included in the Fauna Britannica. These were Barbastellus communis, Gray, Myotis murinus, (Geoff.) M. pipistrellus, (Schreber), and Scotophilus scrotinus, (Schr.) Of two other species of Scotophilus, one only differs a little in colour from a specimen sent by Mr. H.E. Strickland as Sc. dacycarpus, (Leisler; and the other would seem to be undescribed. As regards Plecotus, for instance, upon the most careful comparison of fine English specimens of Pl. Auritus with the description of Pl. Homochrous, Hodgson. J. A. S. XVI, 894, the only difference detected was that the Himalayan Plecotus would seem to have shorter fur above ; a most unsatisfactory distinction, and only one specimen of it had been observed : and examples of Vesp. labiata Hodgson, detained.—*Mr. Bligh.* See Cheiroptera. Mammalia.

BAT. SIAMESE. A Siamese coin to which foreigners apply the term Tikal.

BAT. SANS. Ficus Indica.

BATABI NEBOO, Beng. Pumplemous or Shaddock, Citrus decumana.

BATAGUR, a genus of tortoises of the family Eruydidæ, order Chelonia of which several species, viz. B. lineatus; Berdmoreii dhongoka; ocellata, Thurgii and trivittata occur in India. See Reptilia.

BATAK or BATTA. See India.

BATANA. Hind. The pea: Pisum sativum.—*Linn.*

BATANGI. Hind. of Hazara and Murree hills, Pyrus variolosa, wild pear.

BATAN ISLAND, one of the Bashee group. The natives, who are a distinct race, are well proportioned, of a copper colour, and medium stature. They are very ugly: their hair is black, and cut short. Their usual dress consists of a piece of cotton, passed round the loins, and a peculiar-looking conical hat, surmounted with a tuft of goat's hair. In rainy weather they wear a cloak of rushes, through which the water cannot penetrate. The sole covering of the women is a piece of cotton, fastened below the bosom, and reaching down to the knee. Almost the whole of the Bashee group of islands are very mountainous. At the back of San Domingo the land rises to a great height, forming a remarkable peak, which can be seen many leagues distant.—*Marryat, Indian Archipelago, p.* 26.

BATANG LUPAR, a river of Borneo. See Kyans, p. 567.

BATANG LUPAR, a range of mountains in Borneo, and a river arising thereform, on which the Sarebas Dyaks live. See India 356, Kyans 570.

BATAR BUTOR. Hind. a method of rice cultivation by sowing broadcast.

BATAR NIHU. Beng. Citrus decumana.—*Linn.*

BATAS also **BATASA**, Sans., also **BATASHA.** Hind, a kind of light sweetmeat, so called from being made with potash (batasha.) Sugar cakes; little cakes of refined sugar, much used in India, in the ceremonial of marriages. In hindu mythology, Ganesa is often represented eating Batasa.

BATAS, MUNDLEE. Beng. Robinia candida.

BATATA, Malay? Convolvulus batatas.

BATATA. Port, Potatoe.

BATATAS, a genus of plants, of the natural order convolvulaceæ, of which B. cissoides, edulis; paniculata, pentaphylla and viscida have been cultivated in India; but B. bignonioides, of Cayenne and B. heterophylla of Cuba are also known. Four small roots of a batatas were sent from Australia by Mr. Dowdeswell, and planted by Mr. Rohde at Guntoor, whence it was largely distributed, and been in daily use as a vegetable preferred to the common sweet potato, as being less sweet and more farinaceous.—*Juries Reports, M. E. Voigt.* 353. *Hog. Veg. King,* 536.

BATATAS EDULIS.—*Choisy.*

Syn.

Convolulus batatas—*Mich. Roxb.*
Ipomœa batatas.—*Lam.*
Convolvulus esculentus.—*Spreng.*
„ edulis,—*Thunb.*
Ipomœa catesbii.—*Meysr.*

Shakr-kand-alu ...	Beng.
Ka Zwon...	Burm.
Ka-Zong-oo........ ...	„
Thim-bo-Nyan......	„
Sweetpotato, Spanish potato.............. ..	Eng.
Kissing Comfits of Falstaff..............	
Natr-alu	Hind.
Lall Shakr Kand-alu	„
Safed Shakr kandalu	
Katela? also Kastila	Malay.
Batata ?	„
Kappakalenga.	Maleal.
Valli-kelangu,......	Tel.
Walli gadda also chella-g " Genasu-g.	Tel.
Chiragadam, Chilagada dampa, Genusa gada, Mohanam var erythrorhiza....	Tel.

Var. α. erythrorhiza. β. leucorhiza.

This perennial plant with creeping stems was originally a native of the Malay Archipelago, but has been distributed all over the warm parts of the world, and cultivated for its edible roots. These are long and cylindrical, and are often eaten raw by the people of India, but Europeans boil them and boil and fry them, and they become mealy and sweet. They are alluded to by Shakspear who makes Falstaff in the merry wines of Windsor say "let the sky rain potatoes and hail kissing comfits," for in the reign of Elizabeth before the introduction of potatoes, these received that name, the kissing comfits being a conserve. There are two kinds, those with red and those with white roots, the red being most esteemed. In Brazil, they yield a spirit the vinto de Batatas of Brazil. There are two or three varieties cultivated in the Tenasserim provinces and the potato like roots are used in various ways. It is very abundant, but is vastly inferior both in size and quality to the sweet potato of the southern states of America.—*Mason. Merry Wives of Windsor, Roxb. Vol. i. p.* 483. *Voigt.* 353. *Hog.* 536. *Mason. Roxb.* See Vegetables of Southern India, Convolvulus batatas.

BATATAS, PANICULATA—Choisy.

Syn.

Convolvulus Paniculatus.—*Linn.*
„ Gossipifolius.—*Spreng.*
„ Insignis.—*Spr.*
„ Roseus.—*HB.*
Ipomœa Paniculata.—*R. Brown.*
„ Mauritiana.—*Jacq.*
„ Quinqueloba.—*Willd.*
„ Gossipifolia.—*Willd.*
„ Eriosperma.—*Beauv.*
„ Insignis.—*And.*

Bhuin Kumra	Beng.	Chiri gummudu	Tel.
Bhuin Kumra	Hind.	Nalla nela gummudu	„
Phâl Modeka	Maleal.	Gummudu tige	„
Bhu-chakra-gada	Tel.	Deo Kanchanam	
Nela gummudu	„		

Grows all over India, the Archipelago, New Holland, the tropical parts of S. America Roots are purgative—*Voigt, p.* 354-5. *Roxb. I*, 478.

BATATAS PENTAPHYLLA, *Ch. W. Ic.*

Syn.

Convolvulus hirsutus.—*Roxb.*
„ munitus.—*Wall.*
„ aphyllus.—*Viviani.*
Ipomœa pentaphylla—*Jack.*

Konda gummada gadda	Tel.	Pala Nela gummuda.	Tel.

Grows all over the south of India in the Archipelago and islands of the Pacific.

BATAVIA, the ancient Jakatra, situated on the banks of the large river Tji-li-wung, in Java, has always been the capital of the Dutch possessions there. According to M. Temminck the town population in 1832, was about 118,000, as follows :—

Europeans...	2,800	Moors and Arabs,	1,000
Chinese...	25,000	Slaves...............	9,500
Natives...	80,000	Total...	118,000

The island contains about nine millions of inhabitants, chiefly mahomedans. The river is also called Jaccatra the town is in Lat. 6° 9' S, Lon. 106° 51' E. 60 miles E. S. E. of the Straits of Sunda. Batavia was founded by the Dutch in 1619. It was taken by a British force from India in 1811, but restored in Aug. 1816. It is the residence of the Dutch Governor General, is defended by a citadel and a large garrison, and has an extensive marine arsenal. The bay and harbour are well adapted for commerce, and a considerable trade is carried on in pepper, rice, sugar, coffee, indigo, spices, hides, and teakwood. The chief imports are opium and piece goods.—*No.* 3 *Jour. Ind. Arch.* See Netherland India, Pulo nyas, or Nias Sourabaya.

BATCHIAN, a large island fronting the S. W. part of Gillolo.

BATÉ, a low island of considerable size, forming the extreme northernly point of the Saurashtra peninsula. Even at the Greek invasion the daring reckless pirates, the Sangara of Bate, were notorious men steeped in crime, and hardened in defiance of all human law. According to the mythological hero worship of the hindus, it was in Bate or Pirates isle that Krishna or Kanya acted the part of the Pythian Apollo, and redeemed the sacred books, slaying his Hydra foe, the Takshac, who had purloined and concealed them in one of those gigantic shells whence the island has its name.—*Postan's Western India, Vol. II. p.* 4 & 5.

BATHAMA NUNA. Tel.

Batham Yennai. Tam. Oil of **Amygdalus** communis ; oil of almonds.

BATHING. Eng.

Sar Nahana	Hind.	Sth'nanum.	Sn. Tm. Tel.
Hamam lena	„	Abhi-angana...	„ „ „
		Conda.	Sans. Tam. Tel.

Bathing, amongst the Jews, mahomedans and hindus, is a religious rite : the Hebrew legislator, Moses, has conveyed his laws, to the Jews and Mahomedans, and in Turkey, Egypt and Persia, public baths are established in the principal cities. The Rev. W. Robinson mentions (*Robinson's Travels, Vol.* II. *p.* 147.) that at one place he found the baths, an extensive building, with a front fifty-nine feet wide, occupying half a quadrangle.

The mahomedans have two kinds of abluion, or lustration, the "Ghasal" or legal washings for all classes, after any kind of bodily uncleanness such as the pollutio nocturna, menses, coitus or child-birth, for until purified it is unlawful to eat, pray, touch he koran, or go to the mosque. If the legal Ghasal be not needed nevertheless before prayer he *Wázū* or washing in a prescribed manner of the face, hands and feet is indispensable. It occupies two or three minutes. The Wazu is only needed, when any minor cause of impurity as in performing the natural functions has occurred. Where water is not to be had, the Teyammum, or rubbing the face legs and hands with fine dust or dry sand suffices.

In Persia, there are certain periods allotted 'or the women to go to the bath. Ousely notices his (Travels, Vol. I. p. 301) in mentioning hat the bath-horn, in Persian Buq-i-Hamam is ounded to announce that the city-baths are eated and open for the reception of women ; his bath trumpet being sometimes a horn sometimes a conch shell. In India there are no such baths, either for hindoos or mahomedans : in the larger towns, and in Club-Houses there are a few swimming baths for Europeans but the bath places of the British 'n India are private. Hindoos generally resort to a river side or tank, and mahomedans like the British, bathe in their own enclosures.

The priests of ancient Egypt purified themelves by bathing in the morning and plunging nto the sacred waters of the Nile.

The lustration of the Jews is described in Mark vii, 2-5 where he mentions that when he Pharisees saw some of the "disciples eat bread with defiled (that is to say with unwashd hands) they found fault ; for the Pharisees nd all the Jews except they wash their hands ft, eat not, holding the tradition of the elders. And when they come from the market except hey wash, they eat not; and many other hings there be, which they have received to hold, as the washing of pots and pans, brazen vessels and of tables." And, up to the present hour, the hindu ritual is almost identical. Along the banks of the Ganges at every large place, crowds of men and women are to be seen at certain hours of the day, bathing close together in a state of nudity.

The hindu Sthnanam, after child birth, is performed the 16th day; in this purificatory rite the mahomedans adhere to the Hebrew forty days. Amongst the hindus, the Sthnanam is the religious rite of purification, and ordinarily performed once daily, in the early morning, their evening ablution, not involving the head, but from the neck. The Abhiangana Sthnanam, is that, generally twice a week, in which the head is anointed with oil, and corresponds to the anointing of the Jewish ceremonial, and to the Indian mahomedan's Sar-Nahna, or head-washing, of which perhaps the initiatory head-washing rite of certain craftsmen in Britain is a remnant: as, possibly may, similarly, be the feet washing, as a marriage ceremony. In Britain the brides' feet are washed, and in the south of India, the engaged son-in-law, performs the ceremony palal-kal-kazhu-viradu, Tam) of washing his intended father-in-law's feet. Mr. Layard tells us that amongst the Tiyari of the Nestorians, the girls and women bathe unrestrained by the presence of men, in the streams or at the doors of their houses, the men neither heed nor interfere, and their wives, and daughters are not the less virtuous. In Japan, there are bathing houses, in which at Hakodadi both men and women of the lower ranks assemble. Mr. Hodgson tells us that on one occasion at Yedo, the bathers of both sexes indiscriminately sallied out to see them pass, from some twenty of their common cells, in all the natural simplicity of our first parents costume before their expulsion. On another occasion when Mr. Alcock went, preceded by a band of music to the Governor's Yumun all the bathers of both sexes came out, unabashed and without the slightest idea or reflection that they were naked, to gratify their curiosity by a good long gaze on the novel spectacle. But, latterly, if a European attempts to draw the curtain before the bath house, he is received with storms of abuse, and told very plainly to go about his business. The functions of the skin cannot be preserved in healthy activity, nor the changes of climate effectually guarded against without the frequent use of the bath. The warm, tepid, cold, or shower bath, as a means of preserving health, ought to be of as common use as a change of apparel. On a large scale baths are economically heated by steam. The sickly, the aged, the weak, and the intemperate should avoid the use of the cold bath, which should seldom be used in the higher table lands of India, even by the strong.—*Sonnerat's Voyage*, 161. *Hodgson's Nagasaki, p.* 252. *Layard's Nineveh, Vol. I. Robinson's Travels, Vol. ii. p.* 149. *Ousley's Travels, Vol. I. p.* 301. See Ablution Anointing, Demavend, Hamam, Lustration, Purification.

BATHU, also Bathua, Hind. Chenopodium album, much grown in the hills of the W. Himalaya.

BATIN. See Jakun.

BATINAH, the richest province of Oman.

BATIR. Hind. Quail.

BATIS. Hind. Aconitum heterophyllum. See Atees.

BATIS, a genus of the Urticaceæ, B. fruticosa is a shrub of Chittagong.

BATIS SPINOSA, Syn. Roxb. Vol. iii. p. 762. Trophis spinosa. Willde.

One of the Urticaceæ, a creeping plant, a native of the Moluccas and of the eastern part of Peninsular India.

BATKAR. Hind. of Murree hills, Celtis caucasica, nettle tree.

BATLEE. Guz. Hind. corruption of Eng. Bottles.

BATN-BAD-BATN. Arabo—Persic, from generation to generation, a form of granting land.

BATNIR. See Batnere; Kabul, p. 440.

BATNULKAR, a tribe of weavers in the Madura and Tinnevelly districts who speak a slang dialect—*Wils.*

BATOCERA RUBUS, the Cooroominga beetle, penetrates the trunks of young cocoanut trees near the ground and deposits its eggs in the centre. Its grubs when hatched eat their way upwards through the centre of the tree to the top and kill it.—*Hartw T. W.*

BATOOLA. Beng. Cicer arietinum.

BATOO POOTIE. See Pedir Point.

BATOTI. Hind. diseased pulse, caused by the east wind.

BATRACHIA, a sub-class of the class Reptilia, including all the frogs, it is arranged by naturalists into two orders, viz. (1) Batrachia salienta, and (2) Batrachia apoda. The order B. salienta has the families, Ranidæ and Discoglossidæ, Rhinodermatidæ, Bufonidæ and Polypedatidæ the order, Batrachia has but one family, Cœciliidæ. See Reptilia.

BATRACHOSTOMUS MONILEGER. See Aves; Birds: Ornithology.

BATSALI COORA. Tel. Portulaca quadrifida.

BATSHIGGAI, Pashtu, Cutler's sand.

BATTA. Hind. Difference or rate of Exchange: Extra allowance.

BATTA, a supposed aboriginal race inhabiting the island of Sumatra, are not unlike the Malay and Binua of the Malay peninsula, in feature; but are a finer race of men. They are said to eat their aged relatives, a custom mentioned by Herodotus as prevalent among the Massagetæ (Herod. Clio I. c. 216), and speaking of the eastern countries of India (Thalia III. c. 99), producing gold, and tributary to the Persians under Darius, he particularizes the Padæi, a pastoral people; amongst whom when any person falls sick, or arrives at an advanced age, his friends dispatch him, and eat his flesh with rejoicing. Rennell, in his chapter on the twenty Satrapies of Darius Hystaspes, is of opinion, that Herodotus, when he thus describes the east of India and customs of the Padæi, must have meant a tribe who inhabit the banks of the Ganges, the proper and Sanscrit name of which, he says is Padda: Ganga being the appellative only: so that the Padæi may answer to the Gangaridæ Greek writers with whom formerly it was usual for the people to eat their parents when too old for work. The old people selected the horizontal branch of a tree, and quietly suspended themselves by their hands, while their children and neighbours forming a circle, danced round them crying out 'when the fruit is ripe, then it will fall.' This practice took place during the season of limes, when salt and pepper were plenty, and as soon as the victims became fatigued, and could hold on no longer, they fell down, when all hands cut them up and made a hearty meal of them."—*Memoirs, p.* 427. *Newbold's British Settlements, Vol. II. pp.* 370-1, 2, 3. See India, p. 318. Jakun.

BATTA, a river near Kyrada in Dehra also near Kullaisur in Umballa.

BATTAL. HIND. Euonymus fimbriata or E. Hamiltonii: in Kaghàn, it is Pyrus aucuparia.

BATTAM, an island in the south side of the straits of Singapore.

BATTANTA ISLAND separates Dampier and Pitt Straits from each other, and is about 45 miles long. Mabo, its Southern cape, is in Lat. 0° 56' S; Long. 130° 25' E.—*Horsburgh.* See Pitt Strait.

BATTEE SAL. HIND. Dipterocarpus alatus.

BATTIA, a hindu sect who worship Vishnu and his incarnations as Ballaji at Panderpur and Tripati. They have a great reverence for their guru, whom they style maha raj, and place at his disposal Tan, man and dhan, body, mind and means, and recently in Bombay scandalous immoralities regarding and carelessness of their women were shown.' They are generally merchants. See Ballaji, Tirapati.

BATTICALOA, a town of Ceylon in Long. 81° 49' E. and Lat. 6° 42' N.

BATTLES OF INDIA, Anciently, the Sodha and Rahtor rajput, and the Jharijha of Guzerat dismounted in the presence of the enemy and fought on foot. After the fatal battle of Kadasiya, the Persian General, Takharjan, dismounted to fight with Zahir, the Arab champion. This was a common practice of Europe in the middle ages, the emperor Conrad's cavalry followed it in the second crusade, and the English when fighting at North Allerton the battle of the standard; Sir John Hawkwood, a knight of Edward III. introduced the practice into Italy, and the English followed it in the battle of Crevant and Verneuil. The chief battles and sieges in India from which British supremacy has resulted, have been won at Plassey, by Lord Clive in 1757 against the mahomedan power in Bengal, Plassey being the name given to the battle field from the circumstance that it was covered with the pulas tree, Butea frondosa. The siege of Seringapatam in 1799 was of importance, also the battles of Assaye and Argaum, fought by Sir Arthur Wellesley in 1803 against the Mahrattas. In 1803 Allygurh Laswarrie, both won by Lord Lake and General Fraser against Sindiah's battalions of Mahrattas, trained by Perron. The battle of Deeg in 1804: Mehidpore in 1817 against the Mahrattas: Ashti, in 1818, against the Mahrattas. In 1819 Assergur. In 1824-5-6 against the Burmese and in 1826 Bhurtpore fell: in 1840 and 1842 against the Chinese: 1845 against the Amirs of Sindh by Sir Charles Napier. In 1846 against the Sikhs at Sobraon: 1848 Multan, and again in 1849, against the Sikhs at Guzerat. In 1856 in Persia. In 1857 and 8-9 in northern India, at Delhi and Lucknow against the native soldiers in revolt and nearly the whole of north western India in rebellion. The war progress of the British in India, has been by dissimilar military tactics. When in the field, as with Lord Clive at Plassey, with Sir Arthur Wellesley at Assaye, with Lord Lake at Laswaree, Futtehghur and Afzulgurh, in 1818 at Nagpore, in 1824-5-6 in Burmah with Sir Archibald Campbell, in China 1841-2 under Lord Gough, against the Sikhs, at Guzerat, under that Commander; and against the Persians in 1856 under Sir James Outram, it was by boldly throwing the stable British troops, however few in numbers and after long marches, against the less coherent native levies, however numerous; and in the siege operations against Seringapatam, against Gawilghur, against Bhurtpore both in 1805 and 1826, by persevering determination. Lord Clyde's operations of 1858-1859, however, were marked by the wary methodical movement of vast bodies, against the revolted soldiery and rebellious races;—by the measured, ponderous, but slow tramp of splendid infantry, with the cavalry and artillery in aid. The only cavalry movement of note that occurred was after the battle of Cawnpore when on the 9th December 1858, Sir Hope Grant with the 99th Lancers, some native Cavalry and Horse Artillery moved 25 miles to the Sheo-rajpore ghaut on the Ganges, and attacked the flying rebels defeating them and capturing all the guns without, on his side, a single casualty. Sir H. Rose had defeated the army of Gwalior before that city on the 20th and on the 21st June 1858, Sir Robert Napier with the 14th Light Dragoons, some native cavalry and a battery of artillery not 600 in all went in their pursuit and came up with the 6,000 rebel sepoys with their 30 guns at Jowra Alipore where he charged into the thickest of the enemy and completed their dispersion. But of the 100,000 Native soldiers who revolted in May and June 1857, though many died from disease, probably not more than 40,000 from first to last were killed or wounded. In the revolt of 1857, from May till the 30th September the British soldier aided by the few native troops who remained staunch, in all 45,000 British and 60,000 native had to struggle for their lives against 120,000 sepoy troops and an equal number of civil rebels every one of whom in Oudh and Rohilcund had been born a soldier. The first aid that the British got was the Sikh levies sent by Sir J. Lawrence from Lahore. In all, the British and native troops rose to about 150,000 before the end of 1857, and before July 1858, there were 80,000 British soldiers in India. But up to September 1857, the smaller number of 45,000 British and 60,000 natives had to combat for their lives against not less than 300,000 combatants 120,000 of whom had been regularly trained soldiers or partially trained police. Before the end of September 1857 Delhi had fallen and the part relief of Lucknow before the receipt from England of other aid than a wing of the 5th Fusiliers and the 90th L. I.

The real relief of Lucknow took place on the 6th December 1857. After Lord Clive's arrival, Lucknow remained to be besieged, and captured, Cawnpore to be released from the Gwalior contingent, and Oudh and Rohilcund cleared from the armed rebellion, and under Sir Hugh Rose, Central India was restored to British supremacy. Towards September 1857, and from that time onwards (and amongst the first of these came Lord Clyde) British troops came in, at first in small bodies and then in large until the entire re-inforcement of 50,000 men had arrived from Britain to re-establish in the east Britain's supremacy. As a matter of history it may be well to record here the strength of British soldiers in India in the years of and immediately preceding and succeeding the revolt, to show how greatly their numbers vary.

	In India. British Soldiers.	
1852	48,709	
1853	46,933	
1854	47,146	
1855	46,093	
1856	45,104	
1857	45,527	According to Col. Norman of these 5,000 in Persia.
	32,500	According to Genl. Balfour of these 4,000 in
1868	54,000	Abyssinia.

Throughout India, generally, the object of those with whom the British from their first entry on the arena had come in contact, the mahomedans, Mahrattas, Sikhs, Sindians and Afghans, had been personal, either to gain new lands or to hold such as were in their possession, and impressed by the habits and customs of age—they have mostly been ready to yield or retreat when pressed, with the belief that they could regain or return when opportunity recurred ; for except the Sind Amirs, not one of all the ruling powers in India and its borders with whom the British came in contact, had possessed authority in the country longer than the British themselves.

The battles fought by the British in the 18th century were chiefly for existence and a standing ground, and the names of the great Lord Clive, Colonel Lawrance, Sir Barry Close, Lord Cornwallis, and General Harris, were conspicuous amongst others of their countrymen.

Calcutta was taken on the 2nd Jan. 1757 and Fort William on the 5th Feb. 1757.

The battle of Plassey was fought and won in 1757, by Lord Clive against the mahomedan power in Bengal, which gave the British supremacy there. It was fought on a plain covered with the Pulas (Butea frondosa, hence the historical name of the battle plain. The Carnatic came into the English possession, partly by gift, partly by treaties, and in part as the result of battles fought in the 18th century against both mahomedan and hindu sovereigns. Amongst these may be enumerated, Sholinghur, taken 27th Sept, 1781, Negapatam surrendered 18th Nov, 1781, battle of Cuddalore of 13th June 1783.

The taking of Bangalore from Tipoo Sultan, on the 21st March 1791, gave a permanent position in Mysore, but it was eight years later, when Seringapatam was stormed, on the 4th May 1799 that the country came under British control, by the replacement of the hindu descendant of formerrulers on the throne.

The campaign of 1803, commenced on the 7th August. It was directed against Sindiah and Perron and the Bhonslah rajah of Berar: these two Mahratta powers had 72 regular battalions officered by Frenchmen, and 200,000 troops untrained, but from the sources whence they were drawn, such took even a higher social standing than their soldiers of the line. Before the end of December there were gained by the British four battles, amongst which were Assaye and Argaum and Laswarie,—the British completed eight sieges and storms, and effected the almost total distruction of the 72 trained battalions, the dispersion of the rest of their armies, the capture of 738 pieces of cannon, the British force being about 55,000 regular troops, amongst which were 10,000 British soldiers. To effect these results Sir Arthur Wellesley had been moving northwards, taking Ahmednuggar the key of the Dekhan; taking Gawilghur in the Vindhya, also Asseerghur; and Lord Lake moved southwards fighting the battle of Laswari. In those years, also, Jeswant Rao Holkar, when he opposed the British in 1803, had 100,000 regular troops, amongst whom were 600,000 light horse, and 130 guns with the fortress of Chandore and Galingurh. From the tactics adopted, this moveable force baffled the British commanders and all the military power of India from April 1804 till the 15th February 1805. On the 2nd April 1805, Jeswant Rao Holkar, was again defeated by Lord Lake who marched all night and at daybreak entered Holkar's camp, which he completely broke up In this, in going and coming, Lake marched fifty miles. Lord Lake subsequently in December 1805 marched in his pursuit 405 miles in 43 days from Secundra to the Beas river at the Rajghat. In Jeswant Rao Holkar's final overthrow, Lord Lake marched 350 miles in a fortnight to reach Delhi which Sir D. Ouchterlony was defending against Jeswant Rao Holkar. But on Holkar's abandonment of Delhi on the 14th and 15th October 1804 Lord Lake followed him, and at length with a small body of 3,000 British horse and artillery amongst which were the 8th and 27th dragoons, made a forced march of about 48 miles, defeated the forces of Holkar, about 60,000, near Furruckabad, followed 10 miles in pursuit and returned to camp, making a journey of about 70 miles in 24 hours, with a loss of 22 dragoons killed, and 20 Europeans and natives wounded.

Amir Khan, the Rohilla chieftain of Rohilcund forsook the Bhurtpore Rajah, but was followed by General Smith whom Lord Lake sent in pursuit. After a march of 700 miles in 43 days, Amir Khans army was overtaken and defeated at Afzalghar at the foot of the Himalayas on the 2nd March 1804 and Amir Khan was conveyed across the Ganges and Jumnah in March, but he rejoined Holkar's camp under Bhurtpore. At Laswari, in Central India, in 1803, Lord Lake and General Fraser fought and won a battle against the battalions of Scindia and Perron.

Delhi, battle of................	11th	Sept.	1803
Agra, city of, taken............	17th	„	1803
Agra, taken.....................	19th	„	1803
Allyghur, assault of the fortress of..................	4th	Sept.	1803

The Jato of Bhurtpore were inclined to side with Jeswant Rao Holkar, and that fortress was invested by Lord Lake in 1805, and after several determined assaults made without capturing the place, the Rajah sued for terms. In 1825, however, during the Burmese war, puffed up by the belief that their mud fort was impregnable, they again drew down the anger of the Indian Government, and the fort was taken by storm on the 18th January 1826. Bhurtpore, is on the borders of the desert of Rajputanah. When besieged by Lord Lake in 1805, with 10,000 regular soldiers and four determined assaults were made on January 9th and 22nd and February 20th and 21st but in each instance repulsed, though at the close, the besieged on the 10th April 1805 yielded to terms. In those four fruitless attacks, the British loss was 3203 killed and wounded, of whom 103 were officers. In 1826, it was again besieged and successfully stormed by Lord Combermere. The walls were built of unbaked brick or clay. Agra city was taken on the 17th, and the fortress on the 19th October 1803. Sir David Ouchterlony, a general officer of the Bengal Army, for 8 days defended Delhi against the Mahratta Jeswant Rao Holkar, repulsing repeated assaults though with open breaches, till on the night of the 15th October 1804 on the approach of Lord Lake, Holkar withdrew. From that time the moghul Emperor of Delhi became a stipendiary of the British. The Nepaul war ended on the 12th March 1816. It was successfully conducted by Sir David Ouchterlony, but there fell General Gillespie who had relieved Vellore when it was seized by rebels in 1808, and who had distinguished himself in Java in August and September 1811. Several tracts in the mountain valleys of the Himalaya, were then ceded to the Indian Government.

The territories on the north-west part of peninsular India, have been chiefly acquired from the Mahratta sovereigns, as the results of war and victories gained and fortresses taken. Bombay island, came by gift from Portugal, as part of the dower of king Charles the Second's bride. The principal battles were in the begin-ing of the 19th century, and in 1817,1818, and 1819, fought by General Wellesley, Sir Thomas Hislop and Sir Thomas Munro. Of these Ahmednuggur, surrender of city 11th Aug. 1803

Assaye, battle of................23rd Sept. 1803
Berhampore surrendered......16th Oct. 1803

Ahmednuggur city was taken by Sir Arthur Wellesley on the 11th August 1803, and immediately afterwards he received the surrender of the fortress, long regarded as the key of the Dekhan.

Poonah, city of, taken....... 19th Nov 1817
Seetabuldee, battle of, 26th & 27th Nov. 1817
Nagpore taken........... ......26th Nov. 1817
Do re-taken.....................30th Dec. 1817
Jubbulpore, battle of........ 19th Dec. 1817
Mahidpore, battle of.........21st Dec. 1817
Corygaum, battle of ....1st Jan 1818
Copauldroog, storm of... .....14th May 1819
Chandah, siege and storm of...20th May 1818
Amulnair, surrender of.........30th Nov. 1818
Asserghur, siege of.............30th Mar. 1819
Do. surrendered unconditionally......................9th Apr. 1819

Sind fell to the Indian Government, from the mahomedan Talpur dynasty, after the battles of Meeanee, on the 17th February 1843 and of Hydrabad, on the 24th March 1843, both fought by Sir Charles Napier, and this gave the course of the Indus, up to Multan. The Punjab was twice engaged in war, with the Indian Government, in 1845 and again in 1849, after which the entire Sikh dominions were incorporated with those of British India and a rapid increase of its resources followed.

Moodkee, battle of.. ....18th Dec. 1845
Ferozeshah, battle of...21st & 22nd Dec. 1845
Aliwal, battle of...... ....28th Jan. 1846
Lahore, annexation to the British Government of... ...16th Dec. 1845
Do. occupied by the British ..22nd Feb. 1846
Do. Treaty of....................9th Mar. 1846
Sobraon, battle of............... 10th Feb. 1846
Multan, city of, taken by storm ..2d Jan. 1849
Do. unconditional surrender of Moolraj and Garrison of...22d Jan. 1849
Chillianwalla, battle of.............13th Jan. 1849
Goozerat, battle of ....21st Feb. 1849

Political difficulties with the Baruk-Zye chief, Dost Mahomed Khan induced the Indian Government at the close of 1838 to resolve on displacing him and replacing the deposed king Shah Shujah ul Mulk. This was done, after a series of successes and severe reverses, in one of which the entire army was destroyed by climate and the sword, and was the greatest disaster that ever befel the army of India. The chief battles fought were

Ghuznee, capture of............23d July 1839
Do. re-capture of............ 6th Sept. 1842
Cabul taken......................... 7th Aug. 1839
Do. re-occupation of.......16th Sept. 1842
Khelat, storm and capture of. 13th Nov. 1839
Jellalabad, battle of............. 7th Apr. 1842

The only territory now held by the British west of the Indus, is the peninsula of Aden taken on the 19th January 1839.

The possessions east of the Ganges, have fallen to the British arms from two powers. The first to engage in hostile operations were the Burmese, from whom, after a series of operations in 1824, 5 and 6, territories in Assam, in Arrakan and in Tenasserim were gained. But war again recurred in 1852 and further territories were annexed at the mouth of the Irawaddy, so that from the mouth of the Indus to Singapore, the entire sea-board became British territory: the principal occurrences were

1st War.

Rangoon taken...... ... .11th May 1824
Cheduba, taken from the Burmese......... ... .27th May 1824
Tavoy taken................15th September 1824
Mergui taken... ... ...15th September 1824
Martaban taken... ... ...30th October 1824
Kemmendine taken...... ...9th December 1824
Rungapore taken from the Burmese.................. 21st February 1825
Arracan, capture of.........19th March 1825
Donabew taken... ....2nd April 1825
Prome, Burmese defeated near ...1st Oct. 1825
Melloon, Burmese defeated at : 19th Jany. 1826
Burman Empire peace with...19th Feby. 1826

2nd War.

Rangoon taken... ... .5th April 1852
Martaban..............................5th April 1851
Bassein......... ....19th May 1852
Pegu, capture of......... ....3rd June 1852
Prome...............................9th September 1852

With China there have been two wars, in 1841 and again in 1859 to 1860-1 from which several small portions were ceded to the British. In the earlier war the chief battles were as under.

Chusan, capture of.. ... .5th July 1840
Do recapture of...............1st October 1841
Chuenkee, taking of.........7th January 1841
Bogue Forts, taking of ... 26th February 1841
Canton captured and ransomed, 25th May 1841
Amoy, capture of...... ... ...26th August 1841
Chinhae, capture of.........10th October 1841
Ningpo taken... ... .13th October 1841
Ching-keang-foo, battle of......21st July 1842
Chapoo, capture of...............18th May 1842

Ceylon, long a Portuguese and Dutch territory was taken by the British at different times, viz.

Colombo taken.............16th February 1796
Kandy taken...............18th February 1815
Kandian Country, British entered the................11th January 1815

The central parts of Peninsular India have several times needed coercion. At Kittoor, a battle was fought on the 23rd October 1824, and the fort was besieged and taken on the 5th December of that year. Badamee fort was taken by storm on the 18th February 1818 and was again captured on the 10th June 1841, and as a continuation of the same events, Punalla and Powanghur were captured on the 1st December 1844.

Kurnool, held by a feudatory Pathan chief lying between the Ceded Districts and the Hyderabad territory was surrendered to the East India Company on 15th December 1815, but on the 18th October 1839, was again taken possession of, and on the same day, a battle was fought at Zorapore a few miles off, the nabob of Kurnool captured and the territory annexed.

In 1834 cruelties carried on for a long series of years, by the rajah, brought on him the hand of the Indian Government, and after a series of operations, Coorg was captured after a battle on the 8th April 1834.

In the interval of one hundred years here reviewed the British troops, under the E. I. Company's administration were composed both of European and Native soldiery, armed according to the European mode as Artillery, Cavalry and Infantry, and similarly disciplined but aided by levies of horse and foot, with a less perfect or less extensive organization, and termed Irregular. In the early wars there were few or no European soldiery, and but small bodies of native troops, but these gradually increased with expansion of territory and more concentrated opposition and the European and Native Forces in India were in the years

	Europeans.	Natives.
1839—40	35,604	199,839
42— 3	46,726	220,947
1856— 7	45,522	232,224
8— 9	106,290	196,243
1864— 5	71,880	118,315

In 1857, there were 6,944 European and 8963 Native Artillery: 3,136 European and 30,473 Native Cavalry. In that year the revolt of the native army occurred and the policy since then has been to augment the European army, remove all natives from the scientific corps and reduce their numbers. The composition of the Indian army in 1857 and 1865 was as under.

Europeans.

				H.&C.			Total.
1857	6,944	3,136	38,254				48,334
1865	13,672	6,274	48,945	1,406	438	1,145	72,330

Natives.

Year.	Artillery.	Cavalry.	Infantry.	Staff H. & C.	Total.
1857	8963	30,478	185047		224,483
1865	1465	14,674		2823	118,315

In their opponents, the British forces have had to encounter clouds of horse, as in the Mahratta camps; brave foot soldiers as in the Affghan and Sindian and Sikh, and native armies trained by European officers, Italians, French, and Germans. But those with the native rulers have appeared in the field with every weapon and armour of defence mentioned in history, swords and spears, shields, bows and arrows, and up to 1867, in Hyderabad, soldiery with bows and arrows were still to be seen passing in review in the war pageant of the Nizams Langar even till this day, the Battas of Sumatra, wear the kallasan, a slightly curved sword, and the jono; also knives called tombak lada, and terjing, for drums the Battas use gongs, and in action set up a kind of war-whoop. The Bugis tribes inhabiting Celebes, are celebrated for the temper they give to steel, and for their arms in general; in addition to those of the Malays on the Peninsula, they use defensively the baju ranti (chain jacket), and both a long and round sort of shield. They swear by their krises, for which they have a great veneration, and on going into battle, drink the water in which they have been dipped, uttering imprecations on the foe. The inhabitants of Pulo Nias, an island off the western coast of Sumatra, wear for armour a baju made of thick leather, and a cap to match, covered with the ijo, a vegetable substance resembling black horse hair. The Lampongs, who inhabit the eastern and southern extremity of Sumatra, go into combat with a long lance borne by three warriors; the foremost of these lance-bearers, protects himself with a large shield.

The Malay pirate prahus are stockaded and armed with heavy guns; generally the mariam and lelah, to which last the Malays are very partial; matchlocks, long spears, pointed nibong stakes burned at the end, and others cut short for throwing when at close quarters, and large stones. The signal for attack is the sound of a sort of gong, called Tawa tawa.—*Newbold's British Settlements, Vol. ii. pp.* 212, 214.

BATTLE AXE OF THOR, is the cross. Pattee is the swastika of the Buddhists, and the monogram of Vishnu and Siva. Thor's symbol of governance was the last letter of the Samaritan alphabet, the tau or tao in its decussated form. It is the mark which the prophet (Ezek. ix. 4) was ordered to place on the foreheads of the faithful in Judah, and Indian women still place on their stores of grain. It is placed on the jars of the water from the Ganges and Indus, and in the South of India as the emblem of disembodied Jain saints. It is the mystical Tao Sze, of the buddhists, is the chief ornament on the sceptre of the Bon-pa deities of Thibet, and is expressed on the Artee or musical bell borne by Bal-govind.

BATTLES. The Military Gazette of Vienna makes the following comparisons of the forces engaged in the battle of Solferino and in former great battles:—"At Solferino there were more than 300,000 soldiers in the field, and the losses must have amounted to at least from 30,000 to 37,000. At the battle of Leipsic, which lasted for three days, the 330,000 allies had against them 260,000 French, the latter lost 30,000 prisoners and 45,000 killed and wounded, and the former 48,000 killed and wounded. After Leipsic, the most sanguinary battle was that of Moscow, on the 7th of September 1812. The Russians had 130,000 men and 600 pieces of cannon, the French 134,000 men and 587 cannon; the former lost 58,000 and the latter 50,000; the losses were therefore 40 per cent. At Bautzen, on the 21st of May, 1813, there were 110,000 Russians and Prussians opposed to 150,000 French; the latter lost 20,000 men and the allies 15,000 and not a single cannon. At Wagram, on the 5th and 6th of July 1809, the Austrians had 137,000 men and Napoleon 170,000; the Austrians lost 20,000, and the enemy 22,000. At Esling, there were 75,000 against 85,000; the Austrians had 20,000 killed and wounded, the enemy 13,000 killed, but the enemy left 3,000 prisoners, and was obliged to send 30,000 to Vienna to have their wounds attended to, so that out of the 160,000 men engaged, about one-half were put *hors de combat*. At Austerlitz there were 70,000 French, as many Russians, and 13,000 Austrians; the losses were 21,000 Russians with 160 pieces of cannon, 5,800 Austrians, and 10,000 French. At Jena there were 142,000 French against 150,000 Prussians. At Waterloo there were 170,000 men, of whom 70,000 were French, who lost 25,000 men and 250 cannon, whilst the allies lost 31,000 men. On an average, the losses in all these battles amounted to from 20 to 25 per cent. Whilst in the battle of Solferino they did not exceed 15 per cent."—*Havelock's Three Main Questions. Material Progress in India*, 1865-6.

BATTLES of the Sutlej. See Statistics of Battles.

BATTY, one of the Nicobar Islands.

BATU, ALSO DUND. ARAB. Croton seed

BATU BARA, a river of Sumatra. See Acheen.

BATU PAHAT, a river of Johore.

BAUBIROUSSA, a wild hog of the Archipelago. See Sus.

BAUDDHO-VAISHNAVA. See Stevenson.

BAU-DWEN. See Silver.

BANG, a nuddy near Moondepoor in Nagpoor.

BAUGLAN is the western talooka of Kandesh. Stretching north in Bauglan are a series of valleys separated by small chains of hills. These hills form, as in the Poona Mawuls, ground naturally formed for forest reserves.—*Gibson's Bombay Forest Reports of* 1857-60, *p*. 38. See Bheel.

BAUGREECOTAH, Long. 75° 48' E. and Lat. 16° 14' N.

BAUGRI, one of the predatory tribes of Central India. Several of these in the 18th century were for many years the worst enemies to the prosperity of this country—they were the Moghi, Baugri, Bheel, Sondi, and Bheelalah. The two principal were the Baugri and Moghi, they came to Central India originally from the western parts of India, chiefly from the neighbourhood of Chittore. The Moghi hardly passed the Chumbul, but the Baugri settled in the Eastern parts of Malwa in considerable numbers: and about the beginning of the 19th century the Solunkee Rajpoots introduced no less than four hundred of them to garrison the small fort of Sattanbaree in Bersiah in which district and others in its vicinity there had been for a long period many settlers of this tribe. The Baugri are a very brave race of men, and though they till the soil and pursue occupations of industry from necessity, their favourite pursuits were thieving and plundering. In these arts they were at once expert and bold. They were also mercenary soldiers, ready to serve any one, and to engage in any cause for prey. The Baugri were foot soldiers, their Jemadars or leaders, whom they obeyed implicitly were usually mounted, whenever they settle, they remain in colonies and even when three or four families fix in a small village, they live distinct from the other inhabitants. This tribe, though scattered, preserved a correspondence, which made them formidable enemies to the internal peace of any country, in which they were numerous. There were not more than twelve hundred in the countries of Bagur and Kantul, and their immediate vicinity. The Meenah and Goojur of Hindustan who have settled in Central India (though the greater proportion of them are cultivators) have not forgotten the habits of their ancestors; and many of these classes have distinguished themselves as expert and successful thieves and robbers. The same may be said of the Gond who inhabit its southern frontier.—*Malcolm's Central India, Vol. II. p.* 185.

BAUHINIA, a genus of plants of the natural order Fabaceæ, the generic name was given to it from the twin form of the leaf, in honour of the twin-brothers Bauhin. The number of species is considerable, and Voigt enumerates 25 as occurring in India or as having been grown in the Calcutta gardens, some of the species are cultivated as ornamental flowering plants, some are shrubs, and some are trees which yield useful woods, astringent gums, fibrous barks. The leaves of various Bauhinias are used in Brazil under the names of Unha de Boy, or Ox-Hoof, as demulcent remedies.—B. Aurantiaca and Richardiana of Madagascar ; bidentata of Penang ; brachycarpa of Taong-Dong ; polycarpa of the Attaran river, and speciosa need little notice, and the same may be said of B. porrecta of Jamaica and B. microphylla, a tree of America. Dr. Hooker mentions that a thousand feet above Punkabaree in the outer Himalaya the prevalent timber is gigantic and scaled by climbing Leguminosæ, as Bauhinias and Robinias which sometimes sheath the trunks or span the forest with huge cables joining tree to tree. In the Tenasserim Provinces, scandent species of bauhinia creeps up to the tops of the highest trees. It has very large leaves, and its flowers have the fragrance of mignonette. It approaches Vahl's bauhinia in size and habit, but its petals are red and yellow while in that they are said to be white. It is probably one of the species named by Wallich. Loudon calls bauhinia, mountain ebony, an the wood, though not much like ebony, is quite hard and might be applied to many useful purposes. To the five species which are enumerated among the Burmese flowering plants, may be added a small timber tree bearing a sour leaf, and a pod containing sweet pulp, like the honey locust of America. Bauhinia esculenta of the Cape of Good Hope might be introduced into India, its yam like roots being eaten there. The flower buds of the Bauhinia variegata, kachnar, are eaten, indeed, though not generally known, the flowers of almost all the Bauhinias are eaten by the natives of India. The seeds taken from the huge pods of B. racemosa are eaten in the hills of the N. W. Himalaya. The pods look like pieces of thick undressed leather, about a foot long and an inch or two broad ; they are placed over the ashes of a fire till they roast and split open ; the flat soft seeds are taken out and eaten, the flavor is pleasant ; but the seed is not wholesome. Several of the species in India are as yet undetermined. The woods are often of a dark colour.—*Mason's Tenasserim. Hooker, Him. Jour. p.* 108. *Voigt,, pp.* 253, 45. *Powell.*

BAUHINIA. *Species.*

Ambhota...URIA.

A tree of Ganjam and Gumsur. Extreme height 20 feet, circumference 2 feet and height from ground to the intersection of the first branch, 7 feet. Useless except for firewood.—*Captain Macdonald.*

BAUHINIA, *species.* ? A small timber tree, native of Tenasserim, bears a sour twin-formed leaf, and a pod containing sweet pulp like that of the honey locust of America.—*Dr. Mason.*

BAUHINIA ACUMINATA.—*Linn.*

B. Candida, *Ait* not.—*Roxb.*

Chitka............ ...BENG.
Kanchan........... ,,
Kanchan Chakta ,,
Ma-ha-hlæ-ga.......BURM.
White Bauhinia ...ENG.
Mountain Ebony...... ,,
Cuchunar... ... ...HIND.
Duolo Kunchun...MAHR.
Velutta mandarum ....MALEAL.
Mandareh............TAM.
Vellai muntharaimaram..
Deo-Kanchana......TEL.
Kachana...... ,,
Kasana......... ,,

This handsome shrub, with large pure white flowers, grows throughout the year in the Mauritius, Ceylon, Assam, both peninsulas of India ; is rare in Coimbatore, and does not seem to be indigenous in the Bombay side, where it is cultivated, as also in the Punjab, the Dekhan and Tenasserim. It grows rapidly from seeds, and flowers in the second or third year.—*Drs. Mason. Roxb., Vol. ii.* p. 324, *Riddell, Gibson, Wight, Mason, Flora Andhrica, Voigt,* 253. *Powell.*

BAUHINIA ALBIDA?—*Gibson*?

Qu. B. Candida.—*Roxb., Vol. ii.* 318.

White, rose-scented Bauhinia.

Duolo Kunchun. MAHR. | Vellai-munthri-poo. TAM.

The flower buds of this pretty tree yield an excellent vegetable, for curries. The flowers of B. Albida are very handsome when open, being almost pure white, with a sweet odour. Dr. Gibson says that this tree is found in the Bombay forests, but rarely ; and is more common in the vicinity of villages. It reaches a fair size, and gives a wood of a good quality, but seldom of scantling sufficient for house purposes. This is perhaps the species called by Roxb. B. candida.—*Mr. Jaffrey, Dr. Gibson.* See Vegetables of S. India.

BAUHINIA ANGUINA.—*Roxb.*

Bauhinia piperifolia.—*Roxb.*

Nang-put.........HIND. | Nagama valle.......MALEAL.

It grows in Assam, Silhet, Chittagong and the Concans. Is an extraordinary extensively rambling shrub, with flexuose compressed stems, has very small white flowers. And is highly ornamental.—*Roxb., Vol. ii.,* 328 ; *Riddell, Voigt,* 254.

BAUHINIA BRACHYCARPA.—*Wall.*

Bwai-jin...BURM.

Attains to nearly three or four feet at Taong-Dong and in the Tenasserim Provinces, its, wood is white colored and adapted for fancy work and cabinet making. It is there of smaller size than the B. parviflora.—*McClelland. Voigt*, 255.

BAUHINIA CANDIDA, var. of B. variegata.—*Linn.*

Bauhinia Candida.—*Roxb.*

Kana-raj	BENG.	Kana-raja	HIND.
Kana-raja	„	Kuvidara	SANS.
White mountain Ebony	ENG.	Yuga putru	„

This grows in Prome, Assam, Bengal, Nepal and Oude. It is a small handsome tree with large white flowers, which appear at the commencement of the hot season.—*Roxb. Voigt.*

BAUHINIA CANDIDA. AIT. a Syn. of Bauhinia acuminata.

BAUHINIA CORYMBOSA.—*Roxb.*

A scandent plant, a native of China, a very delicate species, with fragrant middle sized white flowers, tinged with red.—*Roxb.* 329. *Voigt, p.* 254.

BAUHINIA DIPHYLLA.—*Buch.*

Pa-lan	BURM.	Apa	TEL.
Yepi of Nellore	TEL.		

This small tree grows in Burmah, on the banks of the Irawady at Yenan-gheun and Taong-dong also at Masulipatam, Cuddapah, Guntoor and Nellore. Its flowers are pure white of middling size. Of the bark called Authee nar, Yepy and Apa, the natives make temporary ropes for securing thatch, matting or fences. The barks of several other Bauhinias are used for similar purposes. The Ara nar is the bark of Bauhinia parvifolia, of which matches for native guns are made.—*Madras Ex. Jur. Report. Voigt. p.* 254. See Yepi Tree.

BAUHINIA EMARGINATA from this, an astringent gum is also collected in the Deyra Doon, which is called Sem-ke-gond.

BAUHINIA LINGUA. DECAN. Syn. of Bauhinia scandens.

BAUHINIA MALABARICA.—*Roxb.*

Bo-ay-gy-in.—BURM.

This tree grows rapidly. It is a native of Malabar, where it blossoms in October and November. It also grows at Prome and Malloon and in Assam, indeed, it is common in the plains of British Burmah, where its wood is used for the cross pieces of harrows, house posts, &c., &c. A cubic foot weighs lbs. 42. In a full grown tree on good soil the average length of the trunk to first branch is 15 feet, and average girth, measured at 6 feet from the ground, is 4 feet.—*Roxb. Vol.* II. *p.* 321. *Dr. Brandis, Voigt* 253.

BAUHINIA NITIDA. *Irv.*

B. Acuminata ?	Kana rajah	HIND.
White Bauhinia.	B. Candida ?	

This is cultivated as a flowering plant in gardens at Kotah.—*Irvine Gen. Med. Top., p.* 191.

BAUHINIA PARVIFLORA. VAHL. ROXB. Syn. of Bauhinia racemosa.

BAUHINIA PORRECTA. See Diospyros ebenus.

BAUHINIA PURPURASCENS. VAR. of Bauhinea variegata.

BAUHINIA PURPUREA.—*Linn.*

Bauhinia Coromandeliana.—*D. C.*

Deva Kanchun	BENG.	Chovanna Mandaru	MAL.
Sarulmara	CAN.	Shegapu Munthari maram	TAM.
Purple mountain Ebony	ENG.	Bodanta Chettu	TEL.
Kunchun	MAHR.	Pedda are	„

A tree, with very large, deep rose-colored fragrant flowers at the commencement of the rains. It grows in the Mauritius, Coromandel, Irawadi, Martaban in Burmah, Assam and Oude and the Kheree pass. It attains a large size in the mountains of India; in Canara and Sunda found both above and below: most common near the Gungawallee creek. Its wood is strong and good for agricultural implements; but seldom large enough for building.—*Dr. Roxb. Vol. II. p.* 320. *Dr. Gibson. Voigt.* 254. *Dr. Riddell, Mr. Jaffrey, Flora Andhrica.*

BAUHINIA PURPUREA. WALL. Syn. of Bauhinia acuminata, also Syn. of Bauhinia purpurascens. var. of B. Variegata.—*Roxb.*

BAUHINIA RACEMOSA, Lam. not Vahl.

Syn.

Bauhinia parviflora, Vahl; D. C.—*Roxb. Vol. ii. p.* 323.

Bauhinia epicta.—*Kon.*

Ban-raj	BENG.	Malu ?	TEL.
Bwai-jin	BURM.	Mali-jhun ?	„
Hpa-lau	„	Patwa Mawal ?	„
Mawil Ghila	HIND.	Ada ?	„
Apta	MAHR.	Are	„
Vanna-raja	SANS.	Adavi avisa	„
Atcha maram ?	TAM.	Arro ?	
Areka maram ?	„		

This is a magnificent climber, with small white flowers. It is found all over India and all through Burmah Dr. Hooker tells us that along the forests of the Sewalik Hills and the hot valleys of the Himalaya from the Dhoons of the North West to the valley of Assam, this magnificent climber, with its two lobed leaf, may be seen hanging in elegant festoons from the tops of lofty trees, which from the distance from the roots to the stems, one is at a loss to imagine how it could have ever ascended. But occasionally a half killed tree discloses the mode of its progress and indicates the destruction it must have created in the forest. With the bark of this plant, which when stripped off is of a reddish brown colour, the natives of these mountains make ropes; the stems are usually cut in July and August: the outer bark being stripped off is thrown away and the inner is used for ropes as wanted, by being previously soaked in water and twisted when wet. It is also said to be boiled and beaten with mallets, which renders it soft and pliable, for being twisted into ropes and string for charpaes. The fibre makes very strong ropes, but it is not over durable, and rots if kept constantly in water. Though not collected for sale, it is abundant all along the foot of the mountains. Major Swetenham describes its strong coarse ropes as answering well for suspension bridges. Its bark needs but little preparation, being stripped off and twisted it is ready for use, it is also made into matchlock matches. The wood is small, but the heart wood is exceedingly hard and fine. In British Burmah a cubic foot of the wood weighs lbs 44. In a full grown tree, there, on good soil the average length of the trunk to the first branch is 10 feet, and average girth, measured at 6 feet from the ground, is 3 feet. In Bombay, the wood is reckoned very strong, but is never found of a good size, and in British Burmah it is said to be of a white color and adapted for fancy work and cabinet makers.—*Drs. Gibson, McClelland, Wight, Brandes, Mason, Voigt,* 252. *Mr. Jaffrey, Madras Museum, Flora Andhrica. Roxb. II. Dr. Royle, p.* 296.

BAUHINIA RETUSA.—*Rox. ii,* 322.

Growing in the Calcutta Botanical Gardens; has small yellow, purple dotted flowers, by incisions, its bark yields a brownish, mild gum like that of the cherry tree.—*Roxb., Voigt.* 254.

BAUHINIA RICHARDIANA,—*Wall.*

Introduced from Madagascar. Of this wood there is no knowledge, the trees in this country being still young. But this tree deserves attention as it is probable that some useful property in it led to its introduction.—*Hort. Garden* 58. *Voigt.* 255.

BAUHINIA SCANDENS.—*Linn*; *Willde.*

Bauhinia lingua.—*DeCand.*

Myouk-hlæ-ga......BURM.	Naja balli... ...MALEAL.
Rod Bauhinia... ...ENG.	Gunda gilla of Silhet.
Esculapian do....... „	

This trailing, climbing, Bauhinia, has small whitish flowers which turn to a yellowish colour. It grows in the Moluccas, Concans, Assam, is not uncommon about Gowhatti and is a common species at Sylhet where it runs up over trees of the largest size. Dr. Mason mentions that the tree is remarkable for its contorted stem, and it is said by Loudon to have formed the type of the snake rod of Esculapius which he brought with him from India. Its fibrous bark is made into cloth and rope, but the fibres are harsh and stubborn.—*Dr. Mason, p.* 180; *Royle, p.* 296. *Roxb. Vol. II. p.* 326, *and Voigt* 254.

BAUHINIA SANDENS. *Roxb.* in E. I. M. not in Flora Indica. Syn. of Bauhinia Vahlii. See Maljhun.

BAUHINIA SPICATA. KŒN. Syn. of Bauhinia racemosa.

BAUHINIA TOMENTOSA.—*Linn.*

Ma-ha-hlæ-ga-wa BURM.	Petan...... ....SINGH.
Yellow Bauhinia... ENG.	Kat-atti . ...TAM.
Downy mountain Ebony......... ... .. „	Triviatputram ...... „
Kanchana .. .. MALEAL.	Theer vala connai ... „
Usamaduga... ... .SANS.	Thiru vala connay... „

A native of Ceylon, Malabar, and Coromandel; bears a large sulphur-coloured flower, and the upper petal has usually a deep purple spot on the inside. It is a large shrub never exceeding 12 feet in height. Wood very hard, but too small to be of any great value in commerce. This like the Bauhinia racemosa, has a strong very dark colored wood, hence, the name wild *ebony*. Even the younger branches show the heart-wood very dark brown, the bark of this is also employed as extemporary cordage. The plant furnished to Dr. Wight under the name of Caat Attie was the *bauhinia racemosa*, the native practitioners prescribe the small dried buds and young flowers in certain dysenteric cases; they have little sensible taste or smell, though the leaves of the plant when fresh and bruised, have a strong but not unpleasant odour. Their astringency is probably due to the presence of tannin, and of one species. Rheede tells us in the H.'s M.'s (Part 1. p 64) that a decoction of the root of the bark is given on the Malabar Coast, in cases where the liver is inflamed.—*Ainslie's Mat. Med. p.* 73. *Wight. Voigt.* 252. *Dr. Cleghorn. Mr. Jaffrey. Mr. Mendis. Roxb. Vol. II. p.* 323. *O'Shaughnessy, p.* 317.

BAUHINIA TRIANDRA.—*Roxb.*

This is a tree of Bengal and, when in flower, is one of the most beautiful of the Bauhinias. Its trunk is straight and of considerable size. Its flowers are large and white,—*Roxb. Vol. II. p.* 340. *Voigt.* 254.

BAUHINIA VAHLII, *W. & A.*

B. Racemosa, Vahl.—*Roxb., Fl. In.*
B. Scandens.—*Roxb. in E I. C. Mus.*

Chamboolee......DUK.	Boila.. .... NEPAL.
Maloo...... ....HIND.	Adda...... ....TEL.
Mahwal............ „ ?	Shyaleo... ....URIA.

This is an immense scandent shrub, with a circumference of stem of 1½ feet and largish white flowers that turn yellow. It grows in the Thull ghats, ravines at Khandalla, Morung mountains, in the Dehra Dhoon and Kamaon, it abounds in the jungles, in the North West Province of India, and near the mountains of Ganjam and Gumsur and yields a fibre which is extensively used in rope making. The leaves which are a foot in length and breadth, have rounded lobes, are used as platters for eating from and for making the "tullari" or small umbrellas worn on the head, also for packing and lining baskets and for house thatch, and bark for ropes; legumes pendulous from twelve to twenty inches long, covered with a brown velvet down. The kernels of the large and broad pods have a sweet astringent flavor, and are eaten like almonds by the natives. When the husks are fresh the natives roast them to get at the kernels, when old, they open of themselves: it is said the kernels possess tonic and aphrodisiac properties.—*Dr. Honigberger, p.* 241. *Riddell. Voigt,* 254. *Captain Macdonald, Fl. Andh., Useful Plants. Riddell. Powell. Cleghorn. Panj. Report.*

BAUHINIA VARIEGATA.—*Linn.*

Var. (a) Bauhinia purpurascens.
„ (b) „ candida.—*Roxb.* not *Ait.*

Racto-kanchan ... Beng.	Sona... ... ...Hind.
Kano raj	Kanchan ....Mahr.
Irkumbalithamara. Can.	Chovana-mundari Mal.
Mountain Ebony...Eng.	Kuvidara...... ... ..Sans.
Kuchnar... ... ...Hind.	Segapu Manthari maram Tam.
Kuvidara......... „	
Kolar... .... „	Borodha...............Uria.

An ornamental tree with variegated flowers, the purpurascens being purplish, those of candida, white. It is sparingly found in the Bombay forests, and, there, it never reaches a size for a 10 inch plank. The wood, however, is hard and good. In Ganjam and Gumsur its extreme height is 30 feet, circumference 2 feet, and height from the ground to the intersection of the first branch 8 feet, and is tolerably common and used for firewood. Common in India, Burmah and at Ajmeer. When in blossom the tree is very splendid, and the fragrance delightful. The flower buds are eaten as a vegetable. This tree would be highly ornamental in compounds. Mason says that when in blossom this is a very handsome tree. Its buds are sold fresh in the bazaar at Lahore as a vegetable, which are eaten prepared with animal food.—*Drs. Irvine, Mason, Gibson, Riddell, Cleghorn, Voigt and Captain Macdonald, Gen. Med. Top. Dr. Honigberger, p.* 241 *p.* 191. *Jaffrey. Riddell. M. E. Jur. R.* See Koochnal.

Bauhinia variegata.
Var. A. Purpurascens.—*Roxb. II. p.* 319.

Bidal............ ...Beng.	Ma-hə-hlæ-ga-ni...Burm.
Rakta-kanchau... „	Segapoo Munthri-maram...............Tam.
Kuvidara... ....Sans.	

A tree, with beautiful large purple flowers, 4 petals light purple, the fifth deep purple tinged with cream and red. It is one of the most stately of the Bauhinias, and grows in the Peninsula of India, in Serampore, Pateram, Monihari and Purannya.—*Voigt.* 253, *Mr. Jaffrey, Roxb. Vol. II, p.* 319.

Bauhinia variegata.
Var. B. Candida.

A shrub with large flowers with four white petals in its flowers and one with a sulphur colour within. It grows in Nepaul, Oudh, Bengal, m, Islamnagar and Prome.—*Voigt, p.* 253.

BAUJHONOO, Uria? In Ganjam and Gumsur, a tree of extreme height 45 feet, circumference 5 feet, and height from ground to the intersection of the first branch, 22 feet. The wood is used for bandy wheels on account of its strength. It is rather scarce.—*Captain Macdonald.*

BAUL or BOL. Hind. Urine.

BAULEAH, a boat of the Ganges river. See Boat.

BAUNA. Hind. A dwarf.

BAUME. Fr. Balsam.

BAUME DE COPAIBU. Fr. Copaiva.

BAUME-DE-PERU. Fr. Balsam of Peru.

BAUME DE TOLU. Fr. Tolu balsam.

BAUME VERTE. Fr. Mint.

BAUMMOL. Ger. Olive Oil.

BAVALALI. See Baba-Lali; Hindu.

BAVANI. See Bhawani; Kali.

BAVUNGI. Tel. Celastrus paniculatus.—*Willd.* Bavungi nuni. Tel. Oil of ditto. See Malkungunee, Oil.

BAVUNG-PUTI. Malay. Garlic.

BAWA. Mar. Cassia fistula.

BAWANG, a river of Sumatra. See Johore.

BAWAR, a section of the Kuli tribe of Rajputanah. The Bawar, Bawari and Baora or Bhaora are possibly parts of some great race, which were dispersed in pre-historic times. See Rajpoots.

BAWARI, a predatory tribe, scattered throughout India. Wilson describes them as robbers by profession and known in different places by different appellations, but call themselves Bawari. He says that they are all hindus, and use a peculiar dialect, which is said to be spoken in some parts of Guzerat. They seem to be the Bhaora of Southern India, who are styled Harn-pardi and Harn Shikari and are the wild hunters of the jungles and forests. See Bhaora.

BAURI. Beng., low caste hindu, a swine herd by avocation.—*Wilson.*

BAWEAN. The island of Bawean, or, following its old name, Lubek, forming a portion of the Residency of Sourabaya, lies about sixteen Dutch (forty-eight English) miles to the north of Ujong Pangka, in 5° 90′ South Latitude and 112° 38′ W. longitude (Greenwich) and contains about 36 square (Dutch) geographical miles or 44 English miles. The country in general is very mountainous, and it is only near the sea that some plains are found, on the largest of which, about 3½ miles in circumference, the principal village Sangkapura is situated. The Bawean race, are probably descendants of the Madurese, whose language with a few modifications prevails, though they differ from them in dress; but in this respect agree closely with the Bugis. The inhabitants of the dessa Dipanga employ the Javanese language.—*Journ. Ind. Arch. Vol. No.* 7. See India. p. 355. Jati.

BAWR. Pusht. a leopard.

BAWUNG. Bali. Jav. Onion? Garlic?

BAWUN-JAI, a division of the Khutree. See Khutri.

BAWURCHI. Hind. A cook.

BAYA. Hind. Ploceus Philippensis.

BAYA. Jav. Crocodile. See Crocodilidæ.

BAYA. Mar. Cassia fistula.

BAYBERRY-TREE. Eng. Eugenia pimenta.

BAYAUT. Arghun Khan, Kablai Khan's great nephew. His wife was Zibellina, the Khatun Bulugan, a lady of great beauty and ability. She had been married to Abaka, but on his demise, according to the marriage customs of the Mongols, she passed to the Urda of her step-son, Arghun. On her death, Arghun sent Marco Polo for another wife, out of the Mongol tribe of Bayaut, but Arghun died before the lady Kuka-Chin was brought and she passed to Ghazan, the nephew of Arghun, for Arghun had been succeeded by Kai-Khatu, his brother.—*Quart. Rev., July* 1868.

BAYGOONA, Uria? A Ganjam and Gumsur tree leaves used in fever.

BAYLA NAVA MARAM. Tam. Dinduga Tree. Andersonia, sp.

BAYLEY, WILLIAM BUTTERWORTH, a Bengal Civil Servant, died 29th May 1860 in his seventy-ninth year. The East India Company in its best days had few better servants. He rose to the very highest position in the Government of India, for he was for a time Governor-General, and for a quarter of a century he sat in the Great Council of Leadenhall Street, one of the ablest and most respected members of the Court of Directors. In 1840 he was Chairman of the East India Company. When, in 1858, the immediate control of the Government of India was transferred from the Company to the Crown, Mr. Bayley retired into private life.

BAYNDA. Duk. Hibiscus esculentus.

BAYNES, CHARLES ROBERT, was a member of the Madras Civil Service for about 30 years up to 1862. Author of several works connected with the practice of the Courts.

BAY OF BENGAL, lies between the Malay and Indian peninsulas with its head in Lat. 21° N. at the mouths of the Ganges and Brahmaputra. It is liable every few years to be visited by severe cyclones, and advancing storm waves. Of the latter, that of 1832, which swept over the islands of the delta, up to Saugur, was attended with great loss of life; as also was a cyclone in 1859, and another in 1864, with a storm wave which submerged islands and rushed along the coast in the vicinity of Masulipatam. It receives the Ganges by its numerous mouths and the Brahmaputra from the north of India, the rivers Karnphal and Kalandong at Chittagong and Akyab, the Irawadi, Sitang, Gwyne, and Moulmein rivers from Burmah and the waters of the Cauvery, Vallar, Pennar, Palar, Kistna, Godavery and Mahanuddy from the Peninsula of India. See Cyclone, India, 308, 319, Rain, Sunderbans.

BAYPORE, a town in India in Long. 75° 53' E., and Lat. 11° 11, N. See Beypoor.

BAZANIA. See Cinnamomum.

BAZAR. Port. Bezoar.

BAZAR. Pers. Hind. The market place of eastern countries. Those in India are usually held in an open street or open quadrangle and are attended to by men. Those of Burmah are large wooden buildings and the sellers are almost exclusively women, the women of Burmah generally being active commercial agents. In all oriental countries it is the custom for the purchaser to seek out the seller and to make an offer for what he wants. These two customs are opposed to the practice in Europe, and where the purchaser is a stranger and ignorant of the ordinary value of the article he is purchasing, lead him into overpaying and to his regarding orientals as lying impostors.

BAZEEGUR and NUT, jugglers, and tumblers. The nut may be considered as the gipsies of Hindustan; both are wandering tribes, and have each a language understood only by themselves: they live principally by juggling, fortune-telling, by palmistry and other means, and are alike addicted to thieving. The gipsies are governed by their king, the Nut by their nardar bouthah. They appear to be equally indifferent on the subject of religion, and in no respect particular in their food, or the manner by which it is obtained. According to a list furnished by Captain Richardson, the languages adopted by these people would appear to possess a very strong affinity to each other. "The Bazeegur are sub-divided into seven castes viz., the Charee, At'bhyee'a, Bynsa, Purbuttee, Kalkoor, Dorkinee, and Gungwar: but the difference seems only in name, for they live together, and intermarry as one people: they say they are descended from four brothers of the same family. They practise the mahomedan rite of circumcision; they regard Tan-Sin as their tutelar deity; consequently they look up to him for success and safety in all their professional exploits. These consist of playing on various instruments, singing, dancing, tumbling, &c." "The two latter accomplishments are peculiar to the women of this sect. The notions of religion and a future state, among this vagrant race, are principally derived from their songs, which are beautifully simple.—*Cole. Myth. Hind. p.* 313. See Himalaya.

BDELLA. Greek. Leeches. See Hirudo.

BAZIRA. Aornis, was the place fixed on by the Greek dynasties for a military garrison.

There were military colonies of Macedonians established at Alexandria ad Caucasum, Arigæum, and Bazira, and garrisons at Nysa, Ora, Massaga, Peuceleotis and at Aornis, a mountain range, supposed to be the mountain of Mahaban in the Pir-Panjal or Mid Himalayan range. See Cyc. of Ind. Supp. ii. Kafir.

BAZU-BAND. HIND. Armlet.

BDELLIUM, ENG. FR.

Aflatun	AR.	Bedolah	HEB.
Kara-wa	BURM.	Muk'l	PERS.
Badleyun	GR.	Gugula	SINGH.
Madelkhon	,,	Kungiliam	TAM.
Gugul	GUZ. HIND.	Guggilam	TEL.

This fragrant gum resin as met with in commerce is the product of various trees, and Dr. Ainslie, (Vol. I. p. 29) gives an excellent summary of all the information extant when his work was written. But he was not inclined to regard it as a product of any of the trees of India, and pointed to the Darakht-i-mukul of Persia as the plant producing it. That of Africa, is from Balsamodendron Africanum ; the Sicilian B'dellium is obtained from the Daucus hispanicus, D. C., but in all essential properties these are identical with the gugul of the Indian bazaars, a product of the Commiphora Madagascarensis, (Lindley) the Amyris commiphora, (Roxb.) the Balsamodrendron commiphora, (Wight and Arnott), and a native of Sylhet, Assam and Madagascar, which blossoms in the Calcutta Botanic garden about February and March, but seldom ripens its seed. At the Madras Exhibition of 1855, two varieties of the *B'dellium* from the Amyris commiphora, were exhibited—the solid gum, and the balsamic fluid, as obtained from the tree, and specimens of the tree were sent to the Horticultural Gardens of Madras. The Indian Gugul much resembles myrrh, and is said to be largely exported as that drug. Dr. Royle considered the gugul as identical with the B'dellium of commerce and indicates the Greek names of B'dellium, Badleyun & Madelkhon, as the B'δελλιoγ & μαδελχoγ of Dioscorides. The B'dellium of Genesis ii. 12, and Numbers xi. 17 is supposed to be the gum resin of Balsamodendron *Roxburghii*, ARN. (B. pubescens Stocks,? and B. Mukul, HOOKER) B'dellium, in the Bombay tariff valuation, is rated at Rs. 4 per cwt. and is imported from Cutch and the Persian Gulf. It is re-exported to China and to England under the name of myrrh.—*O'Shaughnessy, pp.* 287-8. *M. E. J. R., Royle's Ill. Him. Bot. Faulkner. Com. Dictionary.* See Gums.

B'DOLACH of Scripture. Gen. ii. 12, Numbers xi. 7, supposed to be B'dellium gum resin of Balsamodendron Roxburghii or musk.

BE. PERS. without Be-charagh without a lamp, deserted. Be-samajh, without discretion.

BEADS.

Paternosters	DUT.	Mani-Mani	MALAY.
Rosaries	FR.	Kulkuru	MALEAL.
Rosen Krauze	GER.	Coronas	SP.
Munniara	GUZ.	Mané	TAM.
Manke	HIND.	Pussalu	TEL.
Corone	IT.		

Beads are in general use, in all countries, for personal ornament, as necklaces, ear and nose droops, and for ornamental work, and are made of glass, ivory, wood, the inferior and precious gems, as cornelians, onyxes, rubies, emeralds, pearls, seeds, alabaster, magnesite, nacre, coral, gold, steel, and date stones are all used as beads ; rosaries are likewise made of beads. The glass beads manufactured in China are sent wholly to India or the Archipelago ; those for India are shipped to Bombay. Five boxes are estimated to weigh a pecul ; 1345 boxes were shipped in 1836, at $. 18 per box. In the four years 1852-53 to 1855-56 inclusive, the import of beads into the Madras Presidency was to the value of Rs. 1,37,722, and the value of the exports for the same period was Rs. 24,491, glass beads are largely exported from England to Africa, and sometimes to the value of £10,000 to £20,000.

BEAD PLANTS. Several plants in India produce bright coloured seeds, used as beads. Amongst these is the red seed with a black eye, of the Abrus precatorius, Beng. Sweta Koonch : Tamul, Conduminnie, which is also used by the Burmese as a weight. Mr. Mason informs us that the Karen in the southern provinces cultivate one or two species of Job's tears for the seed. The Pwo race plant, a species with round seeds which are used to ornament the borders of their tunics, but they are never seen on a woman's gown. The Sgau tribe on the contrary, cultivate a species bearing an oval seed, and use them merely for embroidering female dresses. In Amherst Province, the Pwo seldom appear in their native costume, and many deny that their tribe ever had any other than that which they now wear, which is Burmese. The Abrus precatorius is a native of the East Indies, but is found in the tropical parts of Africa and America. The seeds are strung together as beads, with shells and other hard seeds, also as rosaries, hence the name precatorius. The common variety are red, with a black spot, whilst other varieties produce various coloured seeds. The leaves and roots secrete the sweet substance which characterizes the liquorice plant, (Glycyrrhiza glabra,) and in the East and West Indies it is called wild liquorice and used for the same purposes. Anislie writing of these says they are strung together into necklaces, bracelets and other ornaments. The white sort resemble pearls. Bruised into a fine powder, goldsmiths use it to join together the more delicate of golden ornaments. The shining scarlet seeds of the Adenanthera pavonina, are used as weights by jewellers, and are made into ornaments, in the form of beads, bracelets, &c. The round, hard, black seeds contained in the hairy pericarp of the Canna Indica, (Krishna Tamara, TEL: Kata-bala: Kul Valei munnie, TAM: Seela rumba, SANS Ukkilbar ke munke, HIND: Sabba jaya HIND:) are made into necklaces and other ornaments. The Utrasum beads, are the very rough seeds of the Elæocarpus lanceolatus, (Utrasum, TAM: Oodraj, DUK) They are brought to India from Java, of which country the tree is a native, are about the size of small nutmegs, and are made into bracelets for European ladies. The Saiva brahmins and pundarums, religious devotees of the saiva sect of hindoos, who live by alms, wear them round their heads and necks and form them into rosaries. The dark colored oval seeds of the Caryota urens, are made into buttons, and used as beads by Mahomedans, (koondel-panei munnie, TAM. Erimpanna, CAN.) The dark colored roundish seeds (Kodda panei, munnie, TAM.) of the Corypha umbraculifera are used as beads by hindoo devotees, the Tader, or Dassari wanloo, who live on alms. The Tolasee Beads, (Tolasee vayr munnie, TAM: Toolsikemunké, DUK) are made from the root of the holy basil, Ocimum sanctum, a plant sacred to Vishnu and held in esteem by all his followers, the Brahmins and Taders of which sect, wear it round their necks and arms. A very handsome bead is made by polishing the betel nut, called by the Tamil people Paak munnie.—*Ainslie's Mat. Med, p.* 142.. See Abrus precotorius; Adenanthera pavonina, Areca catechu; Caryota urens, Corypha umbraculifera. Elæocarpus lanceolatus; Ocimum sanctum; Melia azaderach.

BEAH, a river about six miles from Ferozepoor also runs near Umritsir.

BEAM. ENG. NATH. HIND. This building material, is made of wood or iron, and beams are of various kinds.

BEAMI. MALEAL. Herpestes monniera. —*H, B. and Kunth.*

BEANS, ENG.

Phulon	AR.	Fabæ	LAT.
Feves	FR.	Boobii	RUS.
Phul	HEB.	Habas	SPAN.
Bohnen	GERM.	Peennas.	HIND. TAM. TEL.
Fave	IT.		

The various kinds of beans cultivated in the ardens of Europe, are grown in India both natives and Europeans. Vicia faba or Windsor beans and the various species and varieties of phaseolus or French beans. Every native gardener in India is [illegible] with the mode of cultivating them. See Japan, 412. Kabul 433. Phaseolus, Vicia.

BEAR. ENG.

Dub	AR.	Riksha	SANSC.
Dob	ETHIOP. HEB.	Deep	PERS.
Arktos	GREEK.	Karadi	TAM.
Rich	HIND	Gudelgu	TEL.
Ursus	LATIN.		

The genus ursus, of the mammalia, a plantigrade animal, of which, four Indian species are known, viz. U. Isabellinus, Horsfield; U. Labiatus of Blainville; U. Malayensis of Raffles and U. Tibetanus of Cuvier. U. Isabellinus is, according to Gray the U. Syriacus of Hemp & Ehrenberg and that known to Himalayan sportsmen as the Brown, Red, Yellow, White, Grey, Silver or Snow bear or Tibetan snow bear and is the Harput of Kashmir, for it inhabits Tibet and the snowy regions of the Himalaya, and High Central Asia generally.

Ursus labiatus of Blainville is found all over India, Ceylon and Assam and is the Ballu or Reech. It has received several scientific synonims, attaching it to the genera Bradypus and Melurus, and its names in English, five fingered sloth, sloth Bear and Ursine sloth, have corresponded. It is readily domesticated. When wild it lives on roots and honey. Ursus Malayanus, occurs in Arakan, Malay Peninsula, Sumatra, Java, Borneo, and in Indo-Chinese countries generally.

U. Tibetanus, the black Bear of Himalayan sportsmen, inhabits the forest region of the Himalaya, and is very rare in Tibet, though met with in its eastern forests. It seems identical with U. Isabellinus, Bligh, Cat. See Mammalia. Prochilus; Ursus.

BEAR, the Great Bear in astronomy is the Dab-i-Akbar of Persian astronomers also called dum-i-gurg, or wolfs' tail.

Beard	ENG.	Barba	LAT.
Bart	DAN. GER.	Resh	PERS.
Baard	DUT.	Thàdi	TAM.
Darhi	HIND.	Gadamu	TEL.
Barbe	FR.		

The beard is worn by most mahomedans, and by several of the christians of the east. The beard is never worn by a hindoo nor by a Burman. Most mahomedans of the Shafei school, however, clip their mustachios exceedingly short; some clean shave the upperlip, the imperial, and the parts of the beard about the corners of the mouth and the forepart of the cheeks. In anointing the body, the beard is also attended to, and in the utterance of any holy name or prayer, mahomedans rub their hand down over their face and mouth and beard as it were catching the sacred sound and fil[illegible] the beard with it.—*Galton's Vocation Tourists,* . 351. *Burton's Pilgrimage to Mecca, Vol. II.* p. 333.

BEARER, Anglo-Indian; a palanquin carrier; also a house servant.

BEAROOT, is trained for hunting by the Kirghis.—*The Upper and Lower Amoor, p.* 145.

BEARMEE, a river near Gysabad and Dumoh.

BEARS PAWS are regarded by the Chinese as a delicate dish.—*William's Middle Kingdom, p.* 249.

BE-AR-WOOD, a tree of Meera Forest, near Abbottabad, Hazara. Natural order, Coniferæ; Pinus longifolia: Properly Bi-ar wood.—*Cal. Cat. Ex.* 1862.

BEAS, a river of the Panjab, which with the Jelam, Chenab, Ravi and Sutlej, form the Panjnad, that joins the Indus near the southern extremity of the province. This river is well known from the writings of Moorcroft (Travels, I. 190), Gerard, and A. Cunningham; (Jour. As. Soc., Ben. X. I.) For seventy-five miles it flows southwards, through the British province of Kullu, then bends towards Mandi, and debouches from the hills at Mirthal, after a winding westerly course of one hundred and twenty-five miles. It is tributary to Sutlej rises on the S. verge of Rotang Pass, Lat. 32° 24' Long. 77° 11' 13,200 feet above the sea. It runs south 80 miles West 50 miles; then takes a wide sweep to N. W. for 80 miles; and S. 80 miles; to Sutlej, at Endrasa, length, 290 miles. Its tributaries and affluents are the Parbati; Sainj, 38; Gomati, 55 miles; Ul; Gaj. About 10,000 square miles are drained by it. It is also called Beah, is the Hyphasis of Arrian, and the Bibasis of Ptolemy. It rises in Lahoul, in the Himalayas and the name is said to be derived from the Sanscrit word Vyasa, the name of a Rishi, or sage, celebrated in the classical literature of India. The local name, Vipasa or Beypasha is supposed to have originated the Bibasis of Ptolemy, the Hypasis of Pliny and the Hyphasis of Arrian. It is still, as of old, crossed by means of a cot placed over the water bags called mashaks, the Greek name being a corruption of the Sanskrit Vipasa. It is however also said to take its name from a sacred pool at its source, called "Vyas Rishi," situated in the Rotang pass, at the head of the Kullu valley, the elevation of which is 13,000 feet above the level of the sea. The scenery of the Beas valley is particularly beautiful, and differs from that of the Sutlej and Chenab. Nine notable tributaries join the Beas in Kullu, amongst these is the Sarahi, unfordable and spanned by a wooden bridge, three miles from Burwa. In the valley of the upper Beas, above Sultanpur, there is abundance of kail (the dhar-chil of Chamba), elm, maple, oak, (two species,) and walnut. On the Parbati, not far from the sacred hot spring of Mani Karan, there is a considerable supply of box (buxus sempervirens) "Shamshad" of the cupresses torulosa (twisted cypress,) and of the olive (Kahu). A large forest of chil, pinus longifolia, is found below Karsole on the Parbati. In the higher slopes, there are dense forests of the less valuable pines and of the alpine oak, quercus semicarpifolia. There are gold washing in its sands.

The whole length of the Beas is 350 miles from its source to its junction with the Sutlej. From Manôli forest to Larji the fall appears to be nearly sixty feet per mile. From Larji to Mandi, a distance of twenty-five miles, the fall is 1,000 feet, or forty feet per mile. From Mirthal, a distance of 150 miles, the fall is only 1,600 feet, or 10·06 feet per mile. The Beas river between Amratsar and Jalandar in the Punjab, is about 898 feet above the sea at about L. 31° 29′ N. L. 75° 6′ *Arrian*; *History of the Punjab, p.* 15. *Hook. et. Thomp. Mrs. Hervey's Adventures of a Lady in Tartary. Vol. I. p.* 85. *Cunningham. Cleghorn's Punjab Report, p.* 84. See Kot Kangra.

BEATI MARAM. Tam. also Biti maram Dalbergia, *species.*

Black wood	Eng.	Rose wood	Eng.
Bombay " "	"	Carroo Maram	Tam.

The tree producing this ornamental wood is common in the Wynaad on open and grass lands, where the tree attains a great size and it grows in Malabar and Travancore to a large size; some trees five feet in diameter, and fifty feet long, have been brought from Travancore, but the wood is generally not more than twenty or twenty-five feet long, and from twenty inches to two feet in diameter. It might be procured in great quantities in Travancore and the Cochin forests. Much of this wood is used in England, and called rosewood. Its general uses in India are for house furniture: great quantities are exported to Bombay, Madras, and Calcutta, for that purpose.—*McIvor M. E. Edye M. and C. M. C. Journal.* See Dalbergia.

BEATSON, Lieutenant General, this officer entered the Indian Army in 1820. He became Lieutenant General in the Turkish Army; and also held the local rank of Major-General in the British Army. He was 6 times mentioned in orders and despatches for actions in which he commanded. He served with Sir DeLacy Evans in Spain, was wounded, received the Cross of San Fernando; gold medal for the Danube campaign, and Crimean medal with clasps for Balaklava, Inkerman, and Sebastopol. He was mentioned by General Sir James Scarlett, on whose staff he was serving at Balaklava and Inkerman. Favourably mentioned in orders or letters by the following

Governors-General and Commander-in-Chief in India:—Lord Ellenborough, Lord Dalhousie, Lord Hardinge, Lord Auckland, Lord Gough, Sir Charles Napier, and Sir William Gomm. In Spain, by Sir deLacy Evans and Sir Duncan M'Dougall; in Turkey and the Crimea, by Lord Raglan and Sir James Scarlett."

BEAUMONTIA GRANDIFLORA.—*Wall.*

Echites grandiflora.—*Roxb.*

A gigantic climbing shrub, one of the *Apocynaceæ* growing in Chittagong, the Khassya Hills and Nepal, flowers in February, and is very showy; found by Dr. Hooker in the Terai, east of Siligoree, in full bloom, ascending the loftiest trees, and clothing their trunks with its splendid foliage and festoons of enormous funnel-shaped white flowers. B. Jerdoniana, R. Wight, of the Coorg jungles, attains similar heights.—*R. Brown. Hooker Him. Jour., Vol. I. p.* 401.

BEAVER, neither the large nor the little beaver occur in India, but the tails of the latter, the Ondatra Americana of Tiedmann, the Castor Zibethicus of Linnæus, Fiber Zithicus of Cuvier Ondatra of Lacepede, the Musk-rat of Canada, and Musquash of the cree Indians, form a considerable article of import into India, being regarded by some races aphrodisaic.

BABBEH, the chief family of the kurd clan of Kermanj; the members of which are the hereditary chiefs of the clan; and hence their whole territory and the people are now called the government of the Bebbeh or Baban. The clan was originally established at Pizhder in the northern mountains near Sikeneh on the frontier of Persia.—*Rich's Residence in Kurdistan, Vol. I. p.* 80.

BE-BAQ. HIND., an acquittance in full.

BEHOOR, a village between Fort Saint David and Pondicherry, at which Major Lawrance, in August 1752, entirely routed the French Army.

BEBA GHAUT, in Long. 92° 3' E. and Lat. 26° 22' N.

BEC-FIN. FR. Syn. for the Warbler birds.

BECHE DE MER. PORT. Holothuria, Tripang, the esculent Holothuria or sea cucumber of the seas of the Archipelago. It sells at Singapore at 18 to 70 dollars per pical. See Holothuria, Japan, Tripang. India 352. Biche de mar.

BECHETI. HIND., an Indian variety of the Camelus dromedarius.

BECHIACORI, A wood of Nepaul, called Sulla and Surrendhool, or Dhoobkee on account of its resinous quality. Its branches are used in Nepaul as torches: the fragrant turpentine which it yields is employed in sacrifices, and in medicated salves, and its wood is converted into rafts for houses.—*Smith's* 5 *Years, p.* 67.

BECHNE-WALA JOGI, a sect of the Jogi mendicants. See Jogi.

BECHUNDI. HIND. or Beh-chandee. In Raepore, this substance, if pulverized, resembles arrowroot, and is made use of by natives on fast days, prepared in various ways. It is obtained from the glutinous matter which issues from the stems of a jungle plant, after being soaked in running water for some days. The Gond race prepare the Behchandee. It can be had in any quantity in the Jubbulpore bazaar, but most of it comes from Mundla and Seonee. The specimens seen appear to consist of the dried sections of a farinaceous root containing bassorin, and allied in composition to salep.

BED, in Long. 67° 58' E. and Lat. 33° 42' N.

BED. ENG.

Bichana	HIND.	Paddu-kai	TAM.
Palang	„	Kattal	„
Charpai	„	Mancham	TEL.

John v. 8 and 9. "And the man took up the bed and walked." The bed of an oriental is seldom anything besides a carpet or mat, or a cloth as thick as a bed quilt. Men carrying such beds may be seen daily on the highways. The hindus of the South of India usually sleep on the floors of their houses, but all of them have night dresses in which to sleep, that of the women being generally a loin cloth called "Padawi," Tamil; Koka, Tel.; made of cotton or of the fibres of one of the hemp plants, though many lie down in their day dress, as in Exodus xxii. 27. Mahomedans in India all use cots to sleep on, when able to afford them, and every mahomedan bride takes a cot or char-pai to her husband's house, as part of her Jahez or furnishings. In Burmah, the poorest person sleeps on a cot with mosquito curtains. —*Ward, Hindoos.*

BED. HIND. PERS., the willow: Arak-i-bed-i mushk," willow-flower distilled water.

BED. SANS. Calamus rotang;—the cane.

BEDA, a Mysore tribe, said by General Briggs to have formed the body guard of the ruler of that country. This is probably a name for the Beder, Bedera or Vedera, a non-Arian race, who occupy several parts of India, the hill top of Ramandrug and at Zorapore where the Bheema joins the Kistnah: the plural is Baidera whence the English Pindara. This non-arian race have small sovereignties at Beder Zorapoor in the Doab of the Kistna and Bhimah. Wilson describes the Mysore Beda as a race who are considered outcasts, and live by the chase as hunters, fowlers, and are considered in Mysore as coming originally from Telingana. Many of the Baidera are grain carriers. See India, p. 327.

BEDA, in Ceylon, a race of wild men, called also Weda, they speak the Singhalese language, wear their hair long, collect it together, and tie it on the crown of the head in a bunch. Their complexions are dark, comparative to the other Singalese.—*Pennant's Hindoostan, Vol. I. p.* 192. See Veddah.

BEDALI, or Bedalika, Griffithia fragrans, *W. and A.* Posoqueria fragrans.—*R. i.* 717.

BEDANA, Hind. Be without, dana, seed, a seedless grape; also a sort of mulberry, and a kind of sweetmeat made with quince seeds.

BEDA-TIGE. Tel. Ipomœa pes-capræ.—*Sweet.*

BEDEN, Capra Nubiana. See Capreæ.

BEDDOME, Major, a Madras Military Officer, wrote on the Snakes, the Ferns and timbers of the Madras Presidency.

BEDEE. A taluk in the Belgaum collectorate with forests; but Dr. Gibson says that neither teak, seesoo, nor honee *(Peterocarpus marsupium)*, the three most valuable woods in the forest, had been spared.—*Report*, 1849 *to* 1856, p. 8.

BEDEE, a town in India in Long. 78° 32' E. and Lat. 20° 44' N.

BEDENORE, OR NUGGORE, a town in India in Long. 75° 5' E. and Lat. 13° 50' N.

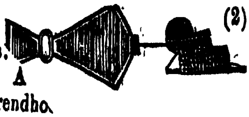
BEDER, in L. 17° 53' 6 N. L. 77° 36' E., A town in the Dekhan, near the right bank of the Manjera, 75 miles North West of Hyderabad. The top of the minaret is 2,350 feet and the base is 2,250 feet above the sea. This was the capital of the Bahmani mahomedan dynasty, which ruled up to the middle of the 16th century, this dynasty joined the quadruple confederation formed by the Nizam Shahi kings of Ahmednuggur, the Adal Shahi kings of Bejapore and the king of Gulburgah, formed to overthrow the Hindu sovereignty of Bijanuggur or Vizianagr, near Bellary, when the sovereign Rama Rajah was taken prisoner. Beder is surrounded by a great curtain, now much dilapidated, and on one of its bastions is an old gun 21 feet long. Many great cupola tombs are on the plain to the S. W. The inhabitants when we saw them in 1866, 1867 and 1868 were few and poor, Beder, Bejapore, Berar, Golcondah and Ahmednuggur, in the 16th century were five independent mahomedan kingdoms. At the time of Baber's invasion Beder was absorbed by its more powerful neighbours. In 1572 Berar was absorbed by the Nizam Shahi dynasty.

BEDER WARE. This tutenague work has been described by Drs. Heyne, Buchanan, Hamilton, Smith and Captain Newbold. It is a metallurgical compound of considerable interest, and the articles are always greatly admired for the elegance of their form, as well as for the gracefulness of the patterns with which their surface is covered. Though the groundwork of this composition appears of a blackish colour, its natural colour is that of pewter or of zinc. Dr. Heyne informs us that it is composed of copper sixteen ounces, lead four ounces, tin two ounces. These are melted together, and to every three ounces of the alloy sixteen ounces of spelter, that is of zinc, is added, when the alloy is melted for use. But to give the whole the black colour which is esteemed, probably from bringing out the pattern, it is dipped into a solution of sal-ammoniac, saltpetre, common salt, and blue vitriol. Dr. B. Hamilton saw of zinc 13,360 grains, copper 460 grains and lead 414 grains, melted together, and a mixture of resin and bees-wax introduced into the crucible to prevent calcination. It was then poured into a mould made of baked clay, and the article handed over to be turned in a lathe. Artists then inlay flowers or other ornaments of silver or of gold. They first smear it over with sulphate of copper and water, which gives the surface a blackish colour, and enables the artist more easily to distinguish the figure which he draws—this he does with a sharp-pointed instrument of steel, and cuts it with small chisels of various shapes and then with a hammer and punch, fills the cavaties with small plates of silver, which adhere firmly to the Bedery. It is then polished and stained as described above. The various articles made from it are vases, wash-hand basins, and ewers, hookah-bottoms, spittoons, cups and dishes, small boxes and weights. These are inlaid commonly with silver, but sometimes with gold. The patterns are usually as much to be admired as the forms of the vessels. Though usually called Bedery, sometimes Vidry, it is also manufactured at other places. According to Captain Newbold, " The mould of the vessel is first prepared, in the usual manner, of clay turned into shape on a wheel: over the smooth surface of the mould a coat of wax and *rall* (rosin) in equal proportions, with a little oil is laid, of the thickness of the sides of the vessel required: over the wax another thick coat of clay is applied. Gradual heat is next resorted to, to harden the clay part of the mould; but principally to melt out the wax, which of course leaves a vacuum on the space it occupied. Into this space the molten alloy is poured, cooled, the mould broken and the vessel in rough taken out, polished and set aside, to receive a black colour preparatory to inlay, from a smearing of *Mor tuta* (Blue vitriol). The alloy itself is of a pewter white colour and is [illegible] the following proportion tending his flock, [illegible] to 1 Chittak or 6 shahi of a journey, or [illegible] (Copper). The patterer at the fire, the [illegible] to be inlaid either; into some ditty, the theme drawn lightly with a steel point on the blackened surface of the vessel, and then cut out to the depth of the inlay required with a tiny delicately pointed chisel, worked by a small hammer. A thin bit of paper is pressed into the excavated pattern to receive the impression—taken out and placed upon a thin plate of silver (the inlay) which is itself laid out evenly on a bed of mixed wax and rall (rosin), and cut into the exact shape of the impression. The cut-out bit of silver is then pressed into its corresponding cavity engraved on the side of the vessel, and firmly inserted by means of a steel point. This done over all parts of the vessel, it is again polished preparatory to receiving its finishing coat of black. This is done by subjecting the vessel to a gentle heat and smearing it with a mixture composed of: 1 Tola (B'hur) Shorah ki Mutti (Saltpetre) 3 Mashas—Nousagur (Sal Ammoniac) ground up into the consistence of cream with brackish water. After allowing this mixture to lie upon the vessel for a few hours, it is washed off with a little brackish water. The inlaid silver devices are little altered in colour, but the intervening portions of alloy remain of a permanent dead black. He witnessed the whole process of inlaying and could not help admiring the precision, lightness of touch, and celerity with which it was performed by a Lingayet, which caste and a Jaina are the only persons skilled in the art. It seems divided however into three branches. The mould maker, smelter and inlayer. Bedery does not rust, yields little to the hammer, and breaks only when violently beaten. According to Dr. Hamilton it is not near so fusible as zinc or tin, but melts more easily than copper. The most recent observer, however, is Dr. George Smith, who thus records the results of his examination of the process :—"Suppose a vessel to be made, resembling in form the common small hookah

(1)

bottom (1): The steps of the manufactures are as follows: A mass of finely pounded and sifted old laterite dust mixed with cow dung, is put upon a rude lathe, and when dry is carefully turned into the correct shape. The lathe is rude

cum.
at Sing
Holothuria,
de mar.
BECHETI. Hi
Camelus dromedarius.
BECHIACORI, A
called Sulla and Surrendho



(2)

account of its resinous quabd either by the hand
are used in Nepaul as torpe attached to a small
turpentine which it yields is ith the other hand the
fices, and in medicated salves, chisel, with which
the model. The

model thus carefully prepared, is next covered with a mixture of wax and oil boiled together. When dry, the whole mass is again turned, the pattern is etched by hand, a small pointed graver being used. This etching is done rapidly. The workman next takes a small chisel and hammer, and following the lines of the pattern, cuts it deeply and expeditiously, scooping out the tracing of the little leaves, &c., and leaving an indented but rough surface. This rough surface is next smoothed down by hammering gently with another blunt pointed chisel, and the space is then ready for the process of inlaying. Thin plates of very pure silver are taken, and the little leaves are cut out with a small hammer and chisel—each little leaf is then raised separately by the chisel and finger tip, and hammered gently but carefully into the depression intended for it, trimmed, carefully thinned and smoothed. Over this coating is plastered a second layer of laterite dust moistened with water, but without cow dung—this coat is rough, and is not subsequently smoothed down. The next stage consists in boring two openings in the composite mould, and in placing it in the fire—the effect of this being to melt in the intermediate layer of wax, and thus to leave a vacant space for the reception of the alloy. Into this space is poured the alloy (consisting of copper 1 part and pewter 4). The vessel has now a dull leaden look; it is hard, but easily cut. This model or shell is carefully turned and smoothed. This part of the process is tedious. In the more durable kinds of Bedery ware silver wire is substituted for the silver leaf. The vase in this state was rough & requires smoothing—this is done with a common file and with a curved scraper of a rude and clumsy form. The hole in the bottom of the vessel is filled up with lead and is smoothed down—finally the ase is gently heated, and whilst warm, it is blackened by the application of a powder supposed to consist of chalky earth and muriate of ammonia—this imparts a brilliant black polish to the shell, and careful hand rubbing brings out the lustre of the silver. The value of the ware depends upon the thickness of the silver inlaying—the common ware of the bazars rarely lasts long. Inlaying is also executed in the same way with copper leaf, but the artistic effect, I think, is inferior to the silver. The price of a small hookah bottom like that described, varies in Beder, from 7 to 10 Rupees. In 1866, there were remaining only five families, engaged in this manufacture, and they seemed poor. At Bhowngir about 12 miles E. from Hyderabad, the Hindu potters m facture a dark coloured earthenw which they fix copper and tin leaf in pe fect imitation of the tutenague work of Beder. —Royle, Arts.

&c. of India, pages 471-2. *'Extract of a Letter from Captain T. J. Newbold, to the address of Major General Fraser. Dr. G. Smith in M. G. I. R.*

BEDER RACE. See Beda.

BED-I-ANJIR. PERS. Ricinus communis, the castor oil plant.

BED-I-MUSHK. PERS. HIND. Salix Ægyptiaca. S. Capra. Willow flower water is the arak-i-bedi-mushk.

BEDISA TIVVA, TEL. Vitis latifolia.—*R. i.* 661.

BEDNOR, also called Nagar a town, 4000 feet above the sea in the Nagar District of North Coorg on a spur to the westward of the chain. The rains are said to last 9 months? *Hook et Thomp.* See Bedenore.

BEDNORE at the foot of the Aravalli Hills, within the bounds of Meywar. One of its ancient chieftains was Rao Soortan, of the Solanki tribe. He was a lineal descendent of the famed Balhara kings of Anhulwara, who were expelled from Anhulwara in the 13th Century and migrated to Central India, where they obtained possession of Tonk-Thoda and its lands on the Bunas river: but Lilla, the Afghan deprived Soortan of Thoda, and restricted him to Bednore. His daughter is distinguished in Indian Annals.—*Tod's Rajasthan, Vol. I. p.* 673.

BEDOUIN, ARAB. is the plural form of Badawi, an "ism el nisbah," or adjective, derived from Badu, a desert." The word "Badawi" is not insulting, like "Turk" applied to an Usmanli, or "Fellah" to the Egyptian. But by mistaking the clan of the wild man for a lower one, "Ya Hitaymi," for instance, addressed to a Harb bedouin, makes him finger his dagger.

Mahomed and his followers conquered only the more civilised bedouins; and there is even to this day little or no religion amongst the wild people, except amongst those on the coast or in the vicinity of cities. The faith of the bedouin comes from El Islam, whose hold is weak. But his customs and institutions, the growth of his climate, his nature, and his wants, are still those of his ancestors, cherished ere Meccah had sent forth a prophet, and likely to survive the day when every vestige of the Kaabah shall have disappeared. Of this nature are the Hejazi's pagan oaths, their heathenish names (few being Moslem except Mohammed), their ordeal of licking red-hot iron, their Salkh, or scarification, proof of manliness, their blood revenge, their eating carrion (*i. e.*, the body of an animal killed without the usual formula), and their lending wives to strangers.—(*Burton's Pilgrimage to Meccah, Vol. iii. p.* 79.) Burton regards all these as remnants of some old creed.

The bedouin tribes do not dwell in towns, but in tents or under the temporary shelter of trees. The Kiab tribe of Susistan in Persia rarely encamp, but in Susistan near the principality of Havisa were five different considerable tribes of independent bedouins.

The bedouins who occupy the great western desert of Oman have neither houses nor tents, but live under the shade of trees. The genuine Arabs disdain husbandry, as an employment by which they would be degraded. They maintain no domestic animals but sheep and camels, except perhaps horses. Their sheikh government, in its constitution and operative effects, is a political phenomenon in the history of nations. Burton tells us that Sherifs and other great men sometimes bind a white turban or a Cashmere shawl round the kerchief, to keep it in its place. The Aakal varies in every part of the country. Here it is a twist of dyed wool, there a bit of common rope, three or four feet long. Some of the Arab tribes use a circlet of wood, composed of little round pieces, the size of a shilling, joined side by side, and inlaid with mother-of-pearl. The Eastern Arabs wear a large circle of brown wool, almost a turban in itself. In Barbary, they twist bright-coloured cloth round a rope, and adorn it with thick golden thread. As a rule, the Sheikh and their subjects are born to the life of shepherds or soldiers. The greater tribes rear many camels, which they either sell to their neighbours, or employ them in the carriage of goods or in military expeditions. The petty tribes keep flocks of sheep.

The tribes are very numerous; they are spread from near Damascus over all Arabia, eastwards to the great rivers, and to the shores of the Persian Gulf. The bedouin horse seldom exceeds 14 hands. The bedouin does not ride gracefully, but he rides securely; the bedouin Arab traces by the footstep, the "Athr" similarly to the Pug of Guzerat and the North American Indian. Many of the bedouin tribes kiss on meeting. They are advancing in knowledge of the arts of life, but are still very ignorant.

But the bedouins, who live in tents, and in separate tribes, still retain the customs and manners of their earliest ancestors. They are the genuine Arabs, and exhibit, in the aggregate, all those characteristics which are distributed respectively among the other branches of their nation.

The Bedouin still retains that passionate love of song for which his race has ever been distinguished. Whether tending his flock, beguiling the tediousness of a journey, or seated after his evening cheer at the fire, the Arab constantly breaks out into some ditty, the theme of which is either love or war. Seated cross-legged under the scanty shade of the date. palm, one of them will thus amuse himself for hours. The only accompaniment is a rude guitar with two strings. Combinations the most harsh and rugged form the most striking feature of their music, as often, when their movements are grave and slow, as when they are brisk and lively. In the former they often exhibit much grave and melancholy thought, in the latter they not unfrequently spring up simultaneously, and join, to the full extent of their voices, in a rude chorus. The manners of tribes differ. Benoo Kahtan, a bedouin tribe of small stature and slender, almost like Indians, are gentle and speak with a low tone of voice. Their language is to the Arabic of the Koran what the Greek of Homer is to that of Isocrates or Xenophon. The northern Bedouin, the Meteyer, Ajman and Oteybah, are more warlike, affect a boisterous roughness or swagger. Bedouins are mere creatures of the hour taking no care and without national or religious principle. The Bedouin women are not treasured up like the wives and daughters of other orientals, and indeed they seemed almost entirely free from the restraints imposed by jealously; the feint says Palgrave which they made of concealing their faces from me was always slight; they never, I think, wore the yashmak properly fixed; when they first saw me, they used to hold up a part of their drapery with one hand across their faces, but they seldom persevered very steadily in subjecting me to this privation.—(*Palgrave, Eothen's Travels in the East, pp.* 247-8.)

The Arab women have a fullness of figure not, however, approaching to corpulency. Their complexion is not darker than that of the Spanish brunette, and we may infer that this is their natùral colour, since, excepting in the morning and evening, those who reside in the oases rarely leave their date groves, and in the tôwns they preserve their complexions with the same care. On the other hand, the Bedouin women, who are constantly exposed to the rays of the sun, are very swarthy; and the same is observed of the men, although the children are equally fair at their birth. The mohammedan ladies in Oman enjoy more liberty, and at the same time are more respected, than in any other eastern country. During civil commotions, they often take a part in public affairs, and in some instances have displayed the utmost heroism. Many tribes exact black mail from the villagers. It is the "khone" (brotherhood), the tribute claimed from time immemorial by the bedouins, in return for their protection, or rather forbearance, in not touching the harvest, or driving off the cattle. Each village pays "khone" to one Sheikh in every tribe, who then acknowledges it as his ukhta or "sister," and is bound to protect the inhabitants against all the members of his own tribe.—*Wellsted's Travels, Vol. I. p.* 353. *Robinson's Travels, Vol. II. p.* 142. *Burton's City of the Saints. Burton's Pilgrimage to Meccah. Palgrave's Arabia. Eothen's Travels from the East. Brydge's Dynasty of the Kajjars. Skinner's Overland Journey. Burckhardt's Travels. Niebuhr's Travels. Robinson's Travels.* See Arab. Beni Circumcision Horses.

BEDOWREEA. See Bedaurea.

BEDNORE, a town to the North West of Seringapatam.

BED-PAI, a brahmin who wrote a book of fables, for the benefit of Dabishlim, his king: they were translated into Pehlevi in the time of Nousherwan in the 6th century; from that into Arabic by Abdullah bin Makaffa, about the middle of the 8th century, then about the close of the 9th century, into Persian, by Rudaki, who received 80,000 dirhems for his labours. About the middle of the 12th century (A. D. 1150) in the time of Bahram Shah, a Persian prose translation was made and a subsequent second translation was made by Kashifi, and named the Anwar-i-Sohili, the original fables are in the Hetopadesa and the Panchatantra. A Greek version was made by Simeon Seth, at the command of Alexis Comnenes, and they appeared in Hebrew and Aramaic, Italian, Spanish, and German. The first English edition was in the 16th century, then in French in 1644, 1709, and they are the foundation of Esop's fables.

BEDROUR, a small tract on the Eastern confines of Canara.

BEDUBARYA, Long. 90° 4' E. and Lat. 22° 32' N.

BED-US-SAR. ARAB. Calotropis procera.

BEDVEERN, also PLUIMEN. DUT. Feathers.

BEE. ENG.

Deburah	HEB.	Tena	TEL.
Shahd-ki-mekhi	HIND.	Tenu	TAM.

Bees have long been domesticated. The hive bees vary greatly in colour and size, but except the Ligurian bee the species are identical. The Egyptian bees are geographical varieties.

The traveller Moorcroft remarks that an interesting subject in the rural economy of Kashmir is the management of Bees. Every farmer in the district of Lar, and he had since found the practice general throughout the whole country, in the eastern part of Kashmir, has several hives in his house, and in some houses he had counted as many as ten. A provision for hives is made in building the house, by leaving appropriate cavities in the walls. These somewhat differ in size, but agree in their general form, each being cylindrical, and extending quite through the wall. This tube is lined by a plastering of clay-mortar about an inch in thickness, and the mortar is worked up with the chaff or husk of rice, or with the down of thistles, which latter is employed also for clay-mortar in general. The dimensions of hive are, on an average, about fourteen inches in diameter, and, when closed at both ends, about twenty or twenty-two inches in length. That end of the cylinder nearest to the apartment is closed by a round platter of red pottery ware, a little convex in the middle, but the edges are made flush with the wall by a luting of clay-mortar and the other extremity is shut by a similar dish, having a circular hole, about a third of an inch in diameter, in its centre. There is not any particular rule for the height of hives from the ground. So little difference exists betwixt the practices ordinarily pursued in Kashmir and in Europe, in respect to hiving new swarms, as not to call for notice ; but that adopted in the former country, for preserving the old swarm when the honey is taken, well deserves imitation by the bee-farmer in the latter country. The process by which this is, as I witnessed it, effected, is the following : "Having in readiness a wisp of dry rice-straw, and a small quantity of burning charcoal in an earthen dish, the master of the house, with a few strokes of the point of a short sickle, disengages the inner platter of the tube, bringing into view the combs suspended from the roof of the hive, and almost wholly covered with bees, none of which, however, offer to resent the aggression, or to enter the room. Having placed the straw upon the charcoal, and holding the dish close to the mouth of the hive he blew the smoke strongly against the combs, but removed the straw the instant it took fire, to prevent it burning the bees, and quenched the flame before he employed it again.

Almost stifled by the smoke, the bees hurried through the outer door with such rapidity that the hive was cleared of its inhabitants within a few minutes, when the farmer introducing the sickle, cut down the combs nearest to him, which were received into a dish previously slidden underneath them, and left undisturbed about one-third of the combs, which were almost close to the outer door. He then replaced the inner plater, and brushing off hastily a few bees which clung to the combs, though apparently in a state of stupefaction, threw them out of the house. Observing many other bees lying motionless on the floor of the hive, I inquired whether they were dead, or only stupified, and was answered, that they would recover. Not above one-hundredth part of the community is destroyed : by this method the produce is less than the ordinary yield of a good swarm in England. The honey was light-colored, and of a taste as pure and as sweet as that of Narbonne. I could not learn that the farmers had any suspicion of their honey ever being intoxicating or poisonous, as has been noticed to be the case occasionally with that made by the Bhoura of Garwahl. The Bhoura is compelled to take a more extensive range, and in the scarcity of food, during the short summer, to be less select in regard to its quality. The peasantry of Kashmir are unacquainted with the employment of honey as the basis of a fermented liquor, but eat it raw, or mixed with various articles of common food, whilst the most wealthy substitute it for sugar in preserving fruits. It is customary to take the hive every year, and the end of September, or beginning of October, is found the best season for this operation, a little time still remaining for the bees to add to the portion left for their support during five months.

In consequence of the bees being thus literally domiciliated, they acquire a mildness of conduct far more decided than those of Europe. The bee of Kashmir is a little smaller than that of Europe, though a little larger than the domesticated bee of Kamaon and of Garwahl. Honey sells at about threepence British a pound, but wax is considerably dearer."

In Ceylon bees are all wild. They collect largely from the Nelho. Their nests hang from the boughs of the trees, and a man ascends with a lighted torch of green leaves, which creates a dense smoke. He approaches the nest, and smokes off the swarm from the comb, a beautiful circular mass of honey and wax, generally about eighteen inches in diameter and six inches thick. The bee-hunter being provided with vessels formed from the rind of the gourd, attached to ropes, now cuts up the comb and fills his chatties, lowering them down to his companions below. When the flowers of the Nelho fade, the bees leave the district.

A bee, not of the large wax-producing species, but of a smaller kind called "hei-ying-koee" or "fly-bee," is found in the valley of Munnipore. The honey is excellent. Another species, very large, forms its nest in the ground, and is dangerous to the unwary traveller. Instances have occurred of individuals having fallen into these nests, and having been stung to death. The Munnipori when they come upon a bee of this species catch it and having attached a thread to his body let it loose. By means of the thread its flight is observed, and it can be followed to the nest. The spot is marked, and fire having been procured, the bees otherwise so formidable, are easily destroyed, and the comb filled with the young, obtained. Another larger, bee of Munnipore forms its nest dependent from the branch of a tree, or under the shelter of a wall, the nest being of a most beautiful substance resembling marbled paper.

The bee of the Indian Archipelago, suspends its nest from a branch of a tree, in which position, they may be seen forming masses of considerable bulk. Certain trees become favourites and are selected by the bees year after year for many generations although often disturbed by the taking of their nests. In Borneo these trees become private property among the eastern tribes and are handed down from father to son. Bees-wax is sold at £5-10 to £ 7-10 per 133-1-3 lbs.

The Chinese keep off bees by a few dry stems and leaves of a species of Artemisia which grows wild on the hills, and which is largely used, also, to drive the mosquito out of the dwellings of the people. This plant is cut early in summer, sun-dried, then twisted into bands and it is ready for use. At the commencement of the operation one end of the substance is ignited and kept burning slowly as the work goes on. The bees hover about, but apparently quite incapable of doing the slightest injury. When the hives are properly re-fixed in their places the charm is put out.—*Fortune's Residence. Moorcroft's Travels. McCulloch. Records of the Government of India. F. D., pp.* 32-3. *Baker's Rifle, pp* 304-5. *Indian Field.*

BEE, CARPENTER, a name given to a hymenopterous insect, the Xylocopa tenuiscapa of Westwood (X. latipes, Drury), which perforates large beams of timber as also trees, by boring holes through them. On one occasion, at Kurnool in the Ceded Districts, one of them was seen to kill a sparrow by a single thrust of its sting. Any intruder within the precincts of their nests instantly becomes an object of suspicion and attack, and as the unlucky sparrow was flying towards the corner of the hospital, the bee assailed it, struck it with its sting and the bird fell dead. On raising the skin from the bone, a small reddened spot on the fore part of the skull, indicated the point at which the sting had entered.

BEECH OIL. Oil of Fagus sylvatica.

BEE-EW. Burm. A timber of Tenasserim not identical with *Thee Bew Tha.* Its maximum girth is 3 cubits, and maximum length 22 feet. Trees very abundant near the sea or the river's edge, all over the Tenasserim provinces. When seasoned, sinks in water. It is a very hard, strong wood; used in rice mills where great strength and durability are indispensably required: recommended for handles of tools.—*Captain Dance.*

BEEF, the flesh of the bull, bullock or cow, in use amongst mohamedans and christians in India but prohibited to all hindoos. The flesh of cattle that have died is largely used by the Burmese and by all the Chakili races of India. In Europe "jerked" beef from America, gradually coming into use and the lean part especially, it is stated, is not inferior to fair English-fed beef, fresh from the shambles. The "jerked" beef is probably far superior to such as would be obtained from animals killed in India.—*Times of India, June* 8.

BEEF, POTTED, has often been found adulterated with Bole Armenian, to heighten the colour.—*Hassall.*

BEEF-WOOD. Casuarina muricata. A hard, close-grained, reddish wood, variegated with dark and whitish streaks. It is chiefly used in England in forming borders to work in which the larger woods are employed. It is procured from new South Wales. Beef-wood is imported into the United States in considerable quantities, for various purposes where a hard heavy wood is required, and the Casuarina muricata on the Tenasserim Coast can furnish almost any quantity of this timber, which there is very little used. Roxburgh says it resembles toon in appearance. The Burmese call it by the same name as the pine. —*Faulkner. Mason.* See Dyes.

BEEGAH, A land measure in use in India, but varying in length. In northern India, it is 3025 square yards or $\frac{5}{8}$ths of an acre. In Bengal, 1000 square yards or little more than $\frac{1}{3}$rd of an acre. There is a kuch-ha and a puckha begah, the former $\frac{1}{3}$rd or $\frac{1}{4}$th of the latter, the following are some of the local begahs, in every 100 acres.

	Bheeghas B, C.
Furruckhabad	175·12·0
Grouckpur, East	192·19·7
„ W. and N.	smaller
Allahabad and Azimgurh	177· 5·15
Azimgurh and Ghazipur	154· 6·8
Bijnore	187·19 5
Upper Doab (Kuchha)	582· 3·0

The smallest Begah says Sir John Malcolm may perhaps be computed at one-third, and the largest at two thirds of an acre. The common begah in central India is sixty guz square, which, taking the guz at thirty-two inches, is fifty-three yards one foot. This makes the contents three thousand two hundred English yards, very nearly two thirds of an English acre. But the guz used in land measure is often not more than twenty eight inches, which reduces the begah to about half an acre. In some parts of India the begah is not more than a third; but, as has been said before, its size differs in every province.—*Malcolm's Central India, Vol.* II. *p.* 35. *Elliot. Supp. Glos., pp.* 53,54. See Khiraj

BEEGHOTO, a tract of country occupied by the Ahir and Chouhone rajput. It includes Rewapee, Bawul, Kanon. Patody, Kot Kasim and part of the Baraitch jaghire.

BEEJAPOOR, several towns in India one in Long. 72° 49′ E. and Lat. 23° 37′ N. one in Long. 74° 57′ E. and Lat. 24° 53′ N. and Beejapoor, or Visiapoor, in Long. 75° 48′ E. and Lat. 16° 50′ N. See Bejapoor.

BEEJARA SULA. Sans. Cashew-nut.

BEEJNAGUR, a town in India in Long. 76° 33′ E. and Lat. 15° 19′ N. See Bejanagar.

BEEJNOUR, in Long. 78° 9′ E. and Lat. 29° 33′ N.

BEEJNA, a river near Guneshgunj in Seonee.

BEEKH, Pers. Root of plant. See Bekh

BEEHUR, a river near Kutra Mowharee in Rewah.

BEEMAH, a tributary to the Kistnah river of the Peninsula of India, it rises in Lat. 19° 5′ Lon. 73° 33′ in the table land of the district of Poona; 3,090 feet above the sea, and runs S. E. into the Kistnah, length, 510 miles. It receives the Goor, 100; Neera, 120; Seena, 170; Tandoor, 85 miles. About 29,000 square miles drained. At Coreyaum, where it is enclosed by trap banks it runs with great violence in the rains. Before it joins the Kistnah, it runs through the stratified, fossiliferous rocks of the centre of the Peninsula.

BEENA, a river near Khoraee in Saugor.

BEENA, a form of marriage in Ceylon in which the wife continues to reside with her brothers and her husband takes up his lot with her. See Ceylon, Polyandry.

BEENDHAL, a river near Sahespoor in Dehra.

BEER, Eng.

Biere.....................Fr. | Bier.....................Ger.

A fermented liquor made from the malt of barley, and flavoured with hops. Beer is extensively used in India, and is solely imported from Great Britain in hogsheads and in small quantities bottled. At nearly all periods in the world's history and among nearly all nations, the art of making a fermented drink from some kind of grain appears to have been known; but of all the cereals, barley is the best adapted to the making of beer. In India the bitter pale ales of Messrs. Bass and Allsop, are used to the almost entire exclusion of all others. Captain Ouchterlony about 1850 established an experimental brewery in the Neilgherry hills, and the beer produced was liked. A Joint Stock Brewery Company "Limited" was formed in the North West of India, Capital 60,000 Rupees, in 600 shares. To encourage soldiers in habits of temperance, a Commander-in-Chief of India proposed either to lessen the quantity of malt liquor daily supplied to each soldier from one quart to a pint, or to introduce a medium measure into the Canteen, viz., an Imperial half pint.—*Faulkner. Tomlinson, Universal Review, p. 566. Indian Daily News, July* 28. See Ale.

BEERA or **BEEREE**, (pan ka) a small packet of betel leaf. It is folded up to contain spices, catechu, calcined shell-lime, and pieces of the areca or betel nut.—*Tod's Rajasthan, Vol. I. p.* 327; 413.

BEERA, Beng. Asclepias rosea.

BEERBHOOM, near this at Deoghur are copper, lead, and iron ores, Deoghur, or Byjnath, is a small town in the zilla of Beerbhoom, famous for its temples, visited every year by thousands of pilgrims from the Northwest Provinces of India. It is situated in the great table-land which extends from near Burdwan to Dunwa Ghaut, in Behar. Granite, syenite, and gneiss, traversed by greenstone veins, are the prevailing rocks around—the usual matrices of copper and lead veins all over the world. The metals do not appear ever to have been worked or made use of. The vein at the surface runs east and west—it has been traced for a hundred feet continuously: the metal is partly pure, partly in the form of green carbonate. Veins of lead ore, partly pure, partly in the state of galena or sulphuret, traverse the principal vein at right angles. Both have been analysed, and found of remarkable richness:

The nearest coal is forty miles off—the nearest point on the river where the ore could be shipped for Calcutta is sixty, the road being tolerable all the way. The copper might in all likelihood be separated from the malachite, by stamping and washing. Copper has been pointed out near Beila, in the province of Lus, on the western frontier of Lower Scinde—by Captain Del Hoste and Captain Harris. In Kumaon,—by Lieutenant Gasfurd, and Captain Durand. At Porkee and Dampoor—By Captain Richards. At Almorah and in Affghanistan—by Captain Drummond. In the Nellore and Guntoor Collectorates. It is said to have been worked in Cutch, on the Neilgherries, and near the Poondah Ghaut.—*Bombay Times, June* 19.

BEERBUL, Raja, a favourite of the emperor Akbar. He fell, west of the Indus, in an attack against the Euzufzye.

BEER-EL-SOMAL, country of the Somali to the South of Cape Guardafui. An account of, and of its inhabitants, is given in Lond. Geo. Trans.—*Dr. Buist's Catalogue.*

BEERMAH, a river near Bewur in Harmeerpore.

BEERSHEBA, is twenty miles south of Hebron. Its name means "the well of an oath, or the well of seven," because here Abraham made an alliance with Abimelech, king of Gerar, and gave him seven ewe-lambs in token of that covenant to which they had sworn, (Gen. xxi, 28.) A Roman garrison was here in the time of Eusebius and Jerome. The limits of the Holy Land are often expressed in Scripture by the terms "from Dan to Beersheba," the former being the northern, the latter the southern extremity of the land.—*Robinson's Travels. Palestine and Syria, Vol. I. p.* 157.

BEESHA RHEEDII.—*Kunth.*

Syn.

Bambusa baccifera.—*Roxb.*
Mellocanna bamusoides.—*Spreng.*

Beesha	MALEAL.	Pagu-tullu	RAKHOI·
Bish-Bans	BENG.		

A bamboo, one of the Panicaceæ, growing in the peninsula of India, Bengal and Chittagong.—*Roxb. Vol. II. p.* 197.

BEESILDEO (*Visaladeva*) this name heads the inscription on the celebrated column erected in the centre of Feroz Shah's palace at Dehli. This column, alluded to by Chund, as "telling the fame of the Chohan," was placed at Nigumbode, a place of pilgrimage on the Jumna, a few miles below Dehli, whence it must have been removed to its present singular position. —*Tod's Rajasthan, Vol. II. p.* 452.

BEESWA. HIND. The twentieth part of a Begah.

BEES' WAX, YELLOW.

Mom: Peela mom.	HIND.	Ten Mazhacu	TAM.
Lilin	MALAY.	Mynum	TEL.

Secretion of the bee, Apis mellifica. Bees-wax is the chief source of the wax of commerce, it is more or less yellow, and has an odour of honey; it is brought into the market, after allowing the honey to drain from the honey-comb, and then boiling the combs in water, frequently stirring to prevent burning. The wax thus obtained is
ing th ted a second or a third time and pressed
water to gh hair bags, of increasing fineness, allow-
process, ho molten substance to drop into cold
pot with water m it and prevent sticking. Another
the former to one ever, is to put the combs into a
boiling it allow them nitric acid, one quart of
to coo, latter, and after
floats on the surface and two layers of we wax
settle, the inferior one being almost worthless.

Wax is sometimes adulterated by pease-meal; but by melting and straining through cloth, the meal remains on the strainer. It is adulterated also with tallow which cannot be detected but by the smell. The quantity of Bees' wax exported from Madras was 56,602lbs. in 1853-54, valued at Rs. 19,914. Bees wax has been introduced into China by foreigners from the Indian Archipelago and Europe, though the Chinese also collect it themselves. In the islands where the bees are found, the natives collect the wax from the nests in the forests, disregarding the honey, which is little in quantity and worthless. The islands of Timor and Timorlaut afford bee's wax in sufficient quantity to form an important article of export: the Portuguese there send away 20,000 peculs annually to China and India, at a prime cost of £5 per pecul; Chinese junks import it through Macao. Bee's wax has always been a considerable article of exportation from the Islands of the Archipelago, chiefly the produce of the wilder part of them, where the consumption is small. In the eastern parts of China, the product of the tallow tree (Stillingia sebifera), and beef and hog's tallow in the south, are used in the manufacture of candles. Wax is only employed to incase the tallow or lard, which, from the heat of the climate and its unclarified condition, never becomes hard. About 130 tons are annually taken to Britain from Africa, America and India and sold at £5 to £7 the cwt. Bees wax and camphor are exported largely from Bintulu and Serekie, at which towns these valuable commodities are collected by the mahomedans. The bee's wax and camphor are reported to be so plentiful, that the Dyaks never collect them until the arrival of the trader from the sea.—*Morrison, p.* 141. *Crawfurd, p.* 445. *Low's Sarawak, p.* 323. *Poole's Statistics, Balfour's Commercial Products.*

BEET, the root of the Beta vulgaris. It is
the mangel wurzel of the Germans ag the
muli of India. On the continent of Euror
been used for sugar making. In In
used in salads, as a pickle, and preserv
best are the small varieties.

BEETLE. ENG. Chargol Heb; The Beetles, belong to the class of insects called Coleoptera: they are very numerous in tropical India, but in one part of r. Hooker's Travels, were most rare, and tl wood-borers longicornis and curculis particularly so. A large Telephora was very common. The blistering beetles of India, are several species of mylabris, their market value in Britain is low only 5*s.* 8*d.* the pound.—*Hooker Him. Jour., Vol. II. p.* 65. See Celeoptera.

merceBEETLES, INDIAN. This article of com-
elytræ of consists of the beautiful wing cases or
They are of a brilliant Buprestis, order 1st Coleoptera.
and are imported into Eng metallic green colour
Calcutta, as ornaments land principally from
baskets, &c., and on mus of khuskhus fans,
embroidery. The beetles izelins to enrich the
Akyab, Burmah were called al wings sent from
Thungon Poorie. , p Chenk Poorie, and

BEEVER-GEIL. DUT of Castor.

BEG. TURK., a great ma
tion of all moghul mahome n, a lord, an appella-
Bey, Bai and Boy and in th dans. It appears as
e femine as Begum.

In Turkey and Turkish Arabia, Ya Bei! "O my Lord" is prefaced to every sentence. The Shammar Arabs pronounce the word Beg, which the Constantinopolitans soften into Bey, Bej.—*Layard's Nineveh, Vol. I. p.* 106.

BEGAMI. Hind. a good quality of white rice.

BEGBIE, Major-General, Peter James, an officer of the Madras Artillery, arrived in India on 3rd August 1822. He served in the first Burmese war, and in the Nanning expedition. He translated Beeker's Art of bringing Horse Artillery into action, De Brack's Cavalry outposts, Migout and Berger's Essay on Gun Carriages, and he compiled the Services of the Madras Artillery.

BEGADA. Tel. Nauclea purpurea, R. I. 515; Cor. 54.—W. and A. 1209.—Anthocephalus Indicus.—*Rich. ib. p.* 450.

BEGAI NUNDEE, a river near Kusba Thannah in Comillah.

BEGAM and Goranji rivers near Pertabgurh in Bhopal.

BE-GAR. Hind. In India, forced labour, for the repair of roads, tanks, forts, barracks and for carrying baggage. Begari, a person so compelled to labour. The labourers are usually pariahs and tanners.

BEGATI KANDA. Tel. Amberboa Indica, D. C. Athanasia Ind.—*R. iii.* 417.—*W. Ic.* 479.

BEG-BANUFSHA. Hind. Root of a small plant brought from Delhi; used as a perfume in medicine, and in compounding At'rs. See Bekh.

BEGGUD. Guz. Hind. Tinfoil.

BEGHRAM. See Begram: Kohistan.

BEGONIA, a genus of plants belonging to the Begoniaceæ. The species are upwards of 100 of which 30 have been found in the East Indias, B. Malabarica, laciniata, porrecta, diversifolia; discolor; dipetala, picta and pedunculosa, may be named and several are cultivated as flowering plants. The great yellow-flowered Begonia is abundant in the Bablang pass in the Sikkim Himmalaya, and its juicy stalks make sauce: the taste is acid and very pleasant.—*Riddell. Hooker, Him. Jour. Vol. I. p.* 29. *Voigt.* 66 *H. f. et. T. p.* 96.

BEGONIA. Sp. A pretty little annual, a species of begonia is common in the neighbourhood of both Tavoy and Maulmain.—*Mason.*

BEGONIA GENICULATA. Ramput Udang Udang. Malay. The leaves of this plant are used by the Malays for cleaning and taking out rust from the blades of creeses.—*William Jack, Calcutta Journal of Natural History, Vol. V. p.* 347.

BEGONIA RENIFORMIS. A herbaceous succulent plant, flowers of a pale pink colour, and fragrant. Native of the moist forests of India.

BEGOON. Beng. Common Egg plant. Solanum melongena.

BEG-PURA. Beng. Citrus medica.—*Linn.*

BEGRAM about twenty-five miles in a direct distance from the present city of Kabul, has pretensions to be considered Alexandria ad Caucasum. According to tradition it was a Greek city overwhelmed by some natural catastrophe. The present hindus call the site Balram.—*Masson's Journeys, Vol. III. p.* 150.

BEGUM. Arab. Hind. Pers. Beebee, Bee, Nissa, Khanum, Khatoon and Banoo, are the respectful terms given to mahomedan women in India: many towns and hamlets are designated from this title, Begum bazar, a suburb of Hyderabad in the Dekhan Begumabad, in Long. 77° 38′ E. and Lat. 28° 50′ N. Beegamgunge, in Long. 81° 42′ E. and Lat. 26° 48′ N. Begumpett, a hamlet near Secunderabad in Long. 78° 15′ E. and Lat. 17° 38′ N. Mahomedan ladies of rank have ever been desirous of forming towns.—*Herklots.* See Beg.

BEGUM, a river near Silwanee in Bhopal.

BEGUM SAMRA, a native of India who succeeded to a principality by the demise of her husband, supposed to have been a European, of a name resembling Summers. She bequeathed her kingdom to the East Indian Government, and died on the 27th January 1836. See Thomas.

BEGUN. Beng. Solanum melongena.—*Linn.*

BEHAR, two places of this name one in Long. 78° 40′ E. and Lat. 21° 10′ N., the other in Long. 76° 56′ E. and Lat. 19° 56′ N. See Bahar.

BEHAR TOWN. There is a Sanscrit inscription of the 10th century on a broken stone pillar, to the west of the northern gate of the old fort of Behar. There is one of the 9th century near the village of Passeraya recording the erection of two bhuddhist topes. The Behar caves are in the neighbourhood of Rajagriha. The Milk-maids' cave and Brahman girls' cave have inscriptions, in the Lath character. They are about 200 B. C. and are the most ancient caves of India. The Nagarjum cave and Haft Khaneh or Satghar group, are situated in the southern arm of the hill at some little distance from the Brahman girl and Milk-maids' caves. Another group is the neighbouring Karna Chapara and Lomas Rishi caves.

BEHAR DISTRICT is a part of the ancient kingdom of Magadha, first held by the Barhadratha of the Indu,—the Chandra Vansa or Lunar race, and succeeded by other six dynasties, from B. C. 1400 to B. C. 56. Dr. Hooker mentions as to plants that in the Behar hills, acanthaceæ is the prevalent natural order at Tope Chooney consisting of gay-flowered Eranthemum, Ruellia, Barleria, and such hot-house favourites. Other plants very typical of the flora of this dry region, were Linum trigynum, Feronia elephantum, Ægle marmelos, Helicteres Asoca, Abrus precatorius, Flemingia; various Desmodiæ, Rhynchosiæ, Glycine, and grislea tomentosa very abundant, Conocarpus latifolia, Loranthus longiflorus, and another species: Phyllanthus emblica, various Convolvuli, Cascuta, and several herbacous Compositæ.—*Hooker, Him. Jour. Vol. I. p.* 16. See Chandra vansa; Bahar. Inscriptions 374,378,390, 392 : Karli; Magadha, Purbia ; Ryotwari, Topes.

BEHAT, near Saharunpoor, in the Doab. A submerged ancient town was discovered near this by Sir H. P. Cautley.—*Prin. Ind. An.* See Jelam or Hydaspes.

BEBEHAN, one of the three districts of Fars, the other being Laristan, and Fars proper. See Fars; Kab, Mommai.

BEHEHRA. Hind. Guz. Myrobalan. Terminalia bellerica.

BEH-DANA. Pers. the seeds of the quince (Pyrus tomentosa); but those brought to Ajmere appear more like dried mulberry seeds (Morus nigra): the tree in Cabul is called "bai;" the seeds are demulcent and cooling: very mucilaginous: are used in sherbets: one seer costs four Rupees.—*Gen. Med. Top. p.* 128. See Bihi, Cydonia.

BEHDI, a clan of Khetri. See Khutri.

BEHEMOTH, this animal is noticed in Job. xl., 16 : Ps. i., 10. Is. lxxiii., 22; xxxv. 11. It is supposed to be the hippopotamos. Behold, now, Behemouth whom I made with thee, he feedeth on grass like the ox.

BEHENTA. Uria? A timber tree of Ganjam and Gumsur, of extreme height 30 feet, circumference 3 feet, and height from ground to the intersection of the first branch, 10 feet. It is used for axletrees, oil presses and rice pounders. It is also burnt for firewood the tree being very common. The bark and leaves are used medicinally.—*Captain Macdonald.*

BEHERA, Some of the Joodi and Johya inhabit the range called in the native annals Juddoo-ca-dang, and by Baber the hill of Jud, skirting the Behut. The position of Behera is laid down in the memoir of Rennel, (who calls it Bheera, in 32° N. and 72° 10' E., and by Elphinstone in 32° 10', but a whole degree further to the east or 73° 15'. This city, is often mentioned in the Yadu Bhatti annals. It was one of their intermediate places of repose, on their expulsion from India and migration to central Asia. Its position was minutely pointed out by the Emperor Baber (p. 259), who in his attack on the hill tribes of Jit, Goojur, Guker, &c. adjoining Cashmere, "expelled Hati Guker from Behreh, on the Behut River, near the cave-temples of Garkotri at Bikrum," of which the annotator remarks that as well as those of But Bamian they were probably buddhist. Baber (p. 294) also found the Jit masters of Sialkote, most likely the Salpoor of the inscription (Vol I. p. 803), conquered from a Jit prince in the twelfth century by the Patan prince, and presumed to be the Salbahanpoor founded by the fugitive Yadu prince of Gujui.—*Tod's Rajasthan, Vol. II. p.* 233.

BEHIKAR. Hind. Adhatoda vasica.

BEHISTUN. This name is generally written Bisutun in the maps, it is now given to a small village near Kirmanshah, on the frontier of Persia. A rock is there, and a memoir has been written by Major Rawlinson upon the great inscription on the rock.—*Layard's Nineveh, Vol. II. p.* 168. See India, p. 309.

BEHITSIL. See Hot Springs.

BEHMEN also La Behmen. The dried roots of two varieties of a composite plant, chiefly obtained from Kabul. Used by the natives as a tonic in debility, in doses of 4 drachms; also in impotence as a deobstruent. Price 1s. per ℔. Not at present used in European medicine, but was formerly employed as an aromatic stimulant.

BEHOOYA Beng. Cyperus difformis.

BEHOR-BANS. Beng. Bambusa spinosa.

BEHRAM, a Parsi or Zoroastrian, who dwelt at Nowsaree a town about 20 miles from Surat. He wrote the Kissa-i-Sanjan, a history of the Parsi migrations.

BEHUL. Hind. Grewia oppositifolia,

BEHUT, a name of the Jhelum. In the Panjab it runs about 750 feet above the sea in Lou. 32° 55' 12 N. and Lon. 73 42' E. It is to the East of the Indus river, to which it runs almost parallel, but it is smaller.—*Rennell's Memoir, p.* 99.

BEHUT. Two towns in India of this name, one in Long. 78° 28' E. and Lat. 25° 3' N., the other in Long. 77° 34' E. and Lat. 30° 10' E.

BEIAT, a Persian tribe in Khorassan.

BEIGLERBEG or as Meninski writes it in his institute, Beglerbeg, signifies "Lord of Lords," is a Turkish title given to the ruler of a province. Under him are the hakim or governor of a large city; the zabit or chief magistrate of a town, and the ked khuda principal "house-holder;" also the Kalantar or buzurg the person who, in a village, exercises authority over the other inhabitants.—*Ouseley's Travels, Vol. I. p.* 194.

BEILSCHMEIDIA ROXBURGHIANA. *Nees.* Laurus bilocularis—*Roxb.* a tree of Tipperah, one of the Lauraceæ.—*Voigt, p.* 309. *Roxb. Vol, II. p.* 311.

BEIROUT was taken from the Saracens by Baldwin the first king of Jerusalem, in 1111, and re-taken 1187. Ten years afterwards, the christians re-captured it, and it was frequently ravaged during the crusades. Subsequently it fell into the hands of the Druses, from whom it was taken by the Turks, who still retain possession of it. Beirout, is the ancient Berytus. It is situated on the western extremity of a triangular point of land, projecting into the sea about four miles beyond the line of coast. It stands on a gentle rising ground close to the sea shore, and is about three miles in circumference. The walls by which it is encompassed on the land side are of recent date, and of no great strength, being of a soft-sandstone, and flanked with square towers at intervals. The bazaars are large, particularly that in which silk is sold, and well attended by the inhabitants of the neighbouring mountains. The chief part of the population is Maronite. *Robinson's Travels, Vol. II. p.* 1.

BEIT MYOO, the Burmese name of Mergui.

BEIT OR BETE, an island in the gulf of Cambay ; it was taken possession of by the pirates of Jugut, after they had been defeated by Kutub Shah, in A. D. 1482, Beit fell, after having fought twenty naval engagements.

BEITOOL, in Long. 77° 59' E. and Lat. 21° 51' N.

BEI-VURMA BEWA. CAN. Azadirachta Indica.

BEIZAVI, the literary takhallus of Kazi Nasir-ud-din Abdallah Bin Omar Albeizavi, who died in the year 1299, (*Hig.* 699). His book is in Persian, entitled, Nizam-ul-Tuarikh, which signifies the Order of Chronological Histories. He was a Kazi or judge. He has treated most of the Asian monarchs, and particularly of the ancient Moguls.—*History of Genghizcan, p.* 413.

BEJANAGAR. See Vijianagar.

BEJAPOOR, a ruined city between the Kistna and the Gatparbah rivers south of Sholapoor. It was the seat of the Adăl Shahi dynasty, over some of whom here and at Gogi particularly over Ibrahim Adal Shah, are grand mausoleums. The Bejapore and Ahmednuggur States known in history, as the Adal Shahi and Nizam Shahi, were constantly at war with each other. This finally fell to Aurungzebe after a siege : although they had an inner fort much stronger than the outer works, the garrison were so much in want of provisions that they were compelled to surrender about the 15th October 1686. Shirzee Khan concluded the terms through Ghazee-ood-Deen, to whom the emperor, agreeably to custom, when he received such proposals through any of his officers, was pleased to assign the nominal honour of the conquest. Beejapoor thenceforth ceased to be a capital, and was soon after deserted. Viewed as mere ruins, the remains of that city as they at present exist are exceedingly grand, and, as a vast whole, surpass anything of the kind in Europe. The ruins occupy a space of about 30 miles in circumference. The great historian Ferishta is supposed to have died here, at the early age of 36, during a pestilence that swept away a multitude of the people. A buddhist or Jaina temple, under ground, the several beatiful mosques and mausolea, and the huge gun on the ramparts into which a large man can creep, and which Rumi Khan cast at Ahmednuggur, all merit attention.—*Briggs' Nizam.*

BEJAREN ISLAND, on the north coast of Celebes in Lat. 2° 6½' N. and about 20 miles north east from Banca, is of moderate height. —*Horsburgh.*

BEJA SAL. HIND. also BIJA SAR. HIND. Pterocarpus marsupium.

BEEJUK. BENG. Citrus medica.

BEKALL SEA. The Baikal Lake. See Baikal : Kalkas.

BEKH. PERS. a root of a plant, particularly if used medicinally.

BEKH-AHMAR. PERS. Morina Wallichiana.

BEKH-I-BADYAN, roots of Fœniculum vulgare.

BEKH-I-BANAFSHA, roots of Viola serpens.

BEKH-KARAFS, root of Apium involucratum.

BEKH-KASNI, roots of Cichorium intybus.

BEKH-KURPUS, root of a small plant, comes from Delhi ; heating ; one seer costs two rupees.—*Med. Top. of Ajmere, p.* 3.

BEKH-I-MARJAN. HIND. Red Coral.

BEKH-MIHUQ. PERS., root of Glycyrrhiza glabra.

BEKH-I-NILOFUR. PERS., root of Nelumbium speciosum.

BEKH-I-SOSAN. HIND., roots of Iris florentina.

BEKH-I-ZAFRAN. Aristolochia rotunda.

BEKH-UNJUBAZ. Red colored root of a plant that is brought from Delhi ; considered as cooling and astringent.—*Genl. Med. Top. of Ajmere, p.* 130.

BEKH-I-ZANJABIL-I-SHAMI. PERS. Elecampane.

BEKHUR, a town at the end of the Keloobrung pass, in Chinese Tartary. See Kunawer.

BEKRUL. HIND. Prinsepia utilis.

BEGGING POT, three religious garments, with a begging pot, razor, sewing needle, waistband and bathing cloth, are peculiar to the Bhikshu, or hindu mendicant ascetic.

BEIS, one of the 36 royal races of rajputs who give the name to Beiswara.

BEL. Hind., a place were sugar boiler pans are placed.—*Powell.*

BEL. Hind., a line marked out for a proposed work.—*Powell.*

BEL. Hind., a climber plant, creeper, tendril.

BEL, a hoe; beldar, a labourer. The beldar of northern India are of the Cachi, Kurmi and Chamar races. In India there are of the Wad ara tribes.

BEL, BELOS, or BELUS, a Babylonian deity.

BEL was a patriarch, known to the Greeks. He was the Elam of the Hebrews.

BEL, HURMAN BEL, supposed by Movers to be the serpent of Bel, is explained by Bunsen to mean the combater of Bel or struggler with Bel, called in the Canaanitish dialect Yesrael or Israel. He was the struggler with El, God, the Hercules Palamedes of the Greeks.—*Bunsen, Vol. IV. p.* 284. See Lud.

BELANUS. According to Colonel Tod, the Syrian Bal and Belanus is the Bal-Nath (god) of the Sauras, whose grand temple of Somnath is the counterpart of the Syrian Balbec, Soma-Nath being merely a figurative appellation of Bal, as the ruler of the lesser orb, Soma, or the moon. Add to the grand object of worship, the sun, his symbolic representatives, "the pillar raised on every high hill, and the brazen calf under every tree," of the demoralized Israelites, and we have the Lingam, or Phallus, and the Bull Nanda, similarly placed on hills and under trees, specially sacred to these mysteries. Nothing is wanting to complete the picture, but the day set apart by the Syrians for this worship, and followed by the chosen people, "when their hearts were turned away from the Lord;" this was the 15th of every month. Here we have another coincidence with the Sauras and other tribes of India; it was on the day termed Amavus, which divides the lunar month into periods, called Crishna-pacha and Sookul-pacha, when Surya and his satellite appear face to face in the horizon, the one setting, and the other rising, in perfect fulness, that the hindu, like the Sabeans, "threw up their caps at the new moon, and proclaimed a feast."—*Tod's Travels, pp.* 253-54.

BEL. Hind., also, Belgar, fruit of the Ægle marmelos, Cratæva marmelos or Bengal quince. With hindus, the leaves are sacred to Mata jee, (from the milk of whose breast this tree is believed to have sprung up). The punsari or druggists of Ajmere believe that one pice's size of the bark of the root of this tree, rubbed up with ghee, will, if given soon, recover a person who has taken an overdose of opium. A chemical examination of the fruit shows it to contain tannin, either pure or in combination; a large amount of mucilage; a concrete essential oil; and an aromatic as well as a bitter principle. It would also appear that a sedative or narcotic property exists in one or other of these. According to Lindley, a decoction of the root and bark of Ægle marmelos, is used on the Malabar Coast, in hypochondriasis, melancholia, and palpitation of the heart: a decoction of the leaves in asthmatic complaints, and the fruit, a little unripe, is given in diarrhœa and dysentery. Roxburgh adds that the fruit is laxative. The decoction of the dried fruit is aromatic, slightly bitter and astringent, gummy and mucilaginous, something like a mixture of a decoction of quince and pomegranate, but bearing an aroma peculiar to the Bel. It does not confine the bowels, but appears rather to strengthen and regulate their action. Its great value is doubtless in diarrhœa and chronic dysentery. Made into jam and eaten at meals, like marmalade, every morning, it is found very useful to women and children, whom it is injurious to accustom to continual purgation. The oath of Bel-bundar, or "the pledge of the Bel," is one of the most sacred a hindu can take. The Bel-tree is rendered holy by its leaves being used in the worship of Mahadeva. When this oath is taken, some of its leaves are filled with turmeric, and interchanged with solemn pledges by the parties.—*Genl. Med. Top. of Ajmere, p.* 128. *Malcolm's Central India, Vol. I. p.* 196. See Ægle marmelos.

BELA. Hind. Sans. Jasminum zambac.

BELA. Hind. alluvial soil on the banks of river.—*Powell.*

BELA, Beng. Sapium bacciferum.

BELA, two towns in India, one in Long. 72° 18' E. and Lat. 33. 31' N. The other in Long. 84°, 50' E. and Lat. 26° 51' N.

BELA, the chief town of Las, in Beluchistan, is built on a strong and rocky site on the northern bank of the Purali river. It is the Arma-Bel of the ancient Arab authors; also called Kara bela. It is now decayed, has about 300 houses, but coins, trinkets and funereal jars are found near, and in the neighbouring hills are numerous caves and rock cut temples now ascribed to Farhad and fairies, but are the earthly resting abodes of former chiefs and governors, there are also near old mahomedan tombs. One-third of the houses are occupied by hindus. Supplies of common necessaries are procurable, but articles of luxury are scarce, and consequently high-priced.—*Elliot's History of India. Masson's Journeys, Vol. II. page.* 28. See Kama. Kelat.

BELADUR. Arab. Semecarpus anacardium. See also Bhilawa, also Marking Nut.

BELADERI, Author of an account of the early Arab invasions of Candahar. See Kandahar.

BELAI, a river of Jubbulpore.

BELAMCONDA. See Moræa Chinensis.

BELAM-KONDA-SULA MANI. Maleal. Pardanthus Chinensis, *Ker.*

BELAMEANDA SCHOLARMANI. Tam. in Hort. Mal. Morea Chinensis.

BELAMKANDA CHINENSIS. D. C. Syn of Pardanthus Chinensis, *Ker.*

BELAMUDAGAM. Maleal. Scævola belamudagam.—*Linn.*

BELANDAS, A tribe in Kedah. See Kedah.

BELASCHORA of Rheede, Hort Mal. Lagenaria vulgaris, Cucurbita lagenaria.

BELAWN, the outermost of the Philippines; on the south side of the channel, is the largest of these islands. The east point of the island is in Lat. 6° N. bearing S. from Tapeantana. —*Horsburgh.*

BELASPOOR, in L. 76° 44' E. and L. 21° 20' N. It is built on the banks of the Sutlej, 1,500 feet above the sea.

BELAWAL, a seaport in Kattyawar.

BELDAR, a delver, a digger, from bel, Hind. a spade or pick and, dar Pers. holder. In the Omraoti district there were, in 1868, 1,200 of this race, but they migrate from place to place as work is heard of. They are stone cutters, construct dry walls, and wells. They have no houses but dwell in small patents. Those from Poonah wear enormous turbans, containing about 80 yards of cloth. Their tongue is marathi, but they speak also Hindi : they are hindus, worship Marri Ai or the Death Mother, who is known also as Devi, Sitla or Small Pox, Mata, Bhavani, Ai. They sacrifice rams. They marry when they have the means when young, bury the dead and offer water libations and rice on the third day. They do not eat beef, but eat mutton. One or two can write. They claim to be dissimilar from the Waddaru with whom they neither eat nor intermarry. The Waddaru have two castes, one of them earth-diggers who eat rats. The other are stone-cutters and cart stones from quarries.—*Wils.*

BELELAH also **BELEYLEH.** Pers. Arab. Myrobalan. Terminalia bellerica.

BELEMNITES fossils, are very common in the limestones of Trichinopoly and in the Himalaya. Belemnites, are officinal in Arabic medicine.—*Honigberger*, *p.* 242. See Calc. Spar. Salagrama.

BELERIKA. Maleal. White var. of Calotropis gigantea.—*Brown.*

BELEYLUJ. Arab. Terminalia bellerica. T. rubrica : also Myrobalan.

BELGAR. Hind. See Bel.

BELGAUM, three towns in India, one in Long. 88° 26' E. and Lat. 18° 35' N. one in Long. 77° 44' E. and Lat. 20° 36' N. and one in Long. 74° 40' E. and Lat. 15° 54' N. The last of these Belgaum towns with its adjoining suburb of Shahpur, is at an altitude of 2,260 feet above the sea, from which it is distant 70 miles. It contained 15,244 inhabitants in 1851, but the population was increasing. Cholera is not known to occur within the Fort. The average fall of rain for 7 years 1850 to 1856, was 52·40 inches. It is a large British cantonment, and its climate is pleasant. Natives of India to distinguish it from other towns of the same name, style it Shahpur Belgaum. See India, p. 324.

BELGAUM or **COUNTRY WALNUT.** Eng. Fruit of Aleurites triloba. See Oil.

BELGAUM WALNUT OIL, Aleurites triloba—Hidjlee Badam ka Tel. (Hind). This is, the Mollucca tree which produces the "Lumbang nut" it grows plentifully near Hyderabad. The nuts yield a very large per-centage of oil, and the tree is found to be very prolific. The nuts, strung upon a thin strip of bamboo and lighted, will burn like a candle.—*Transactions, Agri-Horticultural Society of India, Vol. VIII. p.* 220. *Mad. Ex. Jur. Rep.*

BELGAR. Hind. Ægle marmelos. See Bel.

BELGIRI. Hind. Ægle marmelos.

BELI. Singh. Ægle marmelos.

BELI, a monarch of India to whom the god Vishnu, as Vamana, appeared. See Vamana.

BELIDEUS AUSTRALIS, of Waterhouse and Shaw, the long tailed squirrel of N. S. Wales. It is one of the Phalangistidæ.

BELINGU. See Tin.

BEL-KE BUCHLA KI BHAJI. Hind. Duk. Basella alba.

BEL KA PAT. Duk. Leaf of Ægle marmelos,—Cratæva religiosa.

BELKI, Cattle breeder.

BELL, Major, an officer of the Madras army, who from about the year, 1860 to 1870 wrote on several subjects connected with the Political Administration of India.

Bell	Burm.	Manni	Tam.
Ganthi	Hind.	Gautha	Telugu.
atbi..			

The biggest bell in Burma is on a low circular terrace north of the temple at Mengoon, and is said to contain about 90 tons (55,500 viss) of metal. Its external diameter at the lip is 16 feet 3 inches : and its interior height, 11 feet 6 inches. It is therefore fourteen times as heavy as the great bell of St. Paul's; though but one-third of that given by the empress Anne to the cathedral of Moscow. Bells are used by the christian hindu and buddhist worshippers, about their temples and churches. The largest known is that of Moscow cast in the reign of the empress Anne. It weighs nearly 193 tons. The great bell of Pekin weighs only 53½ tons.—*Yule's Embassy, p.* 172. *Statistics of Commerce.* See Ganthi.

BELLA. Duk. Myrobalan.

BELLADONNA. Atropa Belladona, the deadly night shade, preparations of which are largely used in medicine.

BELLA GADA. Tel. Bella manda. Tel. Ceropegia juncea, *R. Cor.* 10.—*W. contr.* 30; *Ic.* 1260.

BELLAL, a dynasty which ruled in Telingana from the eleventh to the 14th century. They called themselves a Yadoo branch of rajputs, and their authority extended over Carnata, Malabar and Telingana. They were destroyed by mahomedans in A D. 1310.

BELLAMA. Guz. Semecarpus anacardium. Marking nut.

BELLARY, in Lat. 15° 8′ 9″ and Long 76° 53′ 8, is a large town and military station W. of the Hägri. Its Dāk bungalow is 1,538 feet (Schl. A. D.) above the sea, but according to General Cullen is 1,575 feet. The highest point near the flag-staff in the upper fort is 2,018 feet. Bellary is the centre of the Peninsula of India, and gives its name to a collectorate of the Madras Presidency. The Collectorate has 1,229,599 inhabitants and forms part of the Ceded Districts allotted to the Nizam after the fall of Seringapatam, and re-transferred or ceded to the British after the Treaty of 1803. It has the Tumboodra river running through it and a sanitorium at Ramanmalay. An independent chieftain, one of the Ghorpara family has his residence at Sandur, in a valley below the hill others of the Ghorpara being at Ganjandarghar, and near Kaladghi. It is the most arid district in the Madras Presidency. In the neighbourhood are Ramanmalay and Comarasamy hills near the valley of Sandur. When Bellary and Cuddapah Balaghaut were ceded in 1803, under treaty by the Nizam, the revenue was deemed scarcely sufficient to pay for the Hyderabad Subsidiary Force, but in 1867, its revenue amounted to 53,52,060 Rupees or £535.206. It is the Head Quarters of the Ceded Districts Military Division of the Madras Presidency.

BELLARY CUMBLIES. See Cumbly.

BELLA SHORA. Maleal. Lagenaria vulgaris, Ser.

BELLAWAN, also BHELA. Duk. Marking Nut, Semecarpus anacardium.

BELLE DE NUIT. Fr. Mirabilis jalapa.

BELLERIC MYROBALAN. See Myrobalan. Terminalia.

BELLEROM, the Tamil name of a Malabar wood, which is called in Malabar and Canara Kyndle. It resembles the wood named Angely at Cochin and in Ceylon. The Company's cruiser, Aurora, was built, by way of experiment, of this wood, procured from the forests in the north of Malabar; and it appeared to answer its purpose.—*Edge M. and C.*

BELLEW, a Medical officer of the Bengal Army, accompanied General Lumsden to Candahar on a political mission during the siege of Dehli. He wrote a General and Medical Report on Affghanistan; report on the Yuzufzai, and a brochure on the Panjab and Affghan policy.

BELL-FLOWER. Companula lilifolia.

BELLINJER. Maleal. Ben-teak.

BELLIS. In India, a species of this well-known flower is easily cultivated by seed after the rains.

BELL METAL.

Klokspys	Dut.	Koloklnaja-mjed	Rus.
Bell metal	Eng.	Campanil	Sp.
Metal de Fonte	Fr.	Venjalam	Tam.
Metal de cloches	„	Kantan	Tel.
Glockengut	Ger.		

An alloy consisting of three parts of copper and one of tin, of which bells are made. The bells of Tanjore, are excellent in tone, superior in finish, and very moderately priced.—*Faulkner.* McCulloch.

BELLONIA. See Osiris.

BELOO, Tel. Uria? A tree of Ganjam and Gumsur, extreme height 30 feet, circumference 3 feet, and height from the ground to the intersection of the first branch, 15 feet. Its wood is sometimes employed for making bandies, but it is chiefly used for firewood the tree being extremely common: the leaves are used for making a sort of umbrella which is worn on the head by the ryots and coolies in that part of the country.—*Captain Macdonald.*

BELLOTAS. Sp. Acorns.

BELLOWS. Eng. Pankha. Hind. Those used in eastern countries are different in form from those of Europe. For the household fires, the bamboo blow pipe is employed. The blacksmiths of India use sheep skins sewed, with a cleft, edged with wooden rods, which the bellows-blower opens, raises and depresses. The Chinese bellows consist of cylindrical tubes of wood, of about eight inches diameter, about five feet long each, and placed vertically in the earth contiguous to each other, with pistons inserted in each, which are alternately depressed, in the manner of churning, by a native sitting beside them. The air is pressed out of a lateral tube in each, and communicates with the forge. Above these tubes are two apertures furnished with valves, to admit fresh supplies of air.—*White's Voyage, p.* 278.

BELNA. Hind. A roller press to extract sugar from the canes: also, a machine for cleaning cotton from its seed.

BELLUM. coarse sugar, Tel. See Goor, Jagri.

BELLULIJ. Can. Garlic.

BELUCHISTAN, A mountainous region to the south of Affghanistan and west of the Indus river, its coast is craggy, but not elevated, and is in some places a sandy shore; inland, the surface becomes higher. The most remarkable features of Beloochistan, are its rugged and elevated surface, its barrenness, and deficiency of water. It may be described as a maze of mountains, except on the N. W., in which direction the surface descends to the great desert on the S., where a low tract stretches along the sea shore. The latitude and longitude and elevation of its chief towns are as under :— Kelat, 28° 53′ 66° 27′; 6,000 feet. Sohrab, 28° 22′ 66° 9′; 5,800 feet. Munzilgah, 29° 53′ 67°; 5,793 feet, Angeera, 28° 10′ 66° 12′; 5,250 feet. Bapow, 28° 16′ 66° 20′; 5,000. Peesee-Bhent, 28° 10′ 66° 35′; 4,600 feet. Sir-i-Bolan, 29° 50′ 67° 14′ 4,494. Putkee, 28° 5′ 66° 40′; 4,250 feet. Paeesht-Khana, 27° 59′ 66° 47′; 3,500 feet. Nurd, 27° 52′ 66° 54′; 2,850. Ab-i-goom, 29° 46′ 67° 23′; 2,540. Jungikoosht, 27° 55′ 67° 2′; 2,150 feet. Bent-i-jah, 28° 4′ 67° 10′; 1,850 feet. Beebee Nanee, 29° 39′ 67° 28′; 1,695 feet. Kohow, 28° 20′ 67° 12′; 1,250 feet. Gurmab, 29° 36′ 67° 32′; 1,081 feet. Kullar, 28° 18′ 67° 15′; 750 feet.

The chief town is Kelat and is the residence of a chief who has the title of Khan, and is paramount amongst the various tribes who occupy that region. The inhabitants of Kelat and Beluchistan, may be comprised under four grand divisions, Brahui, Beluch, Dehwar and Babi, with a few hindus, engaged in commerce. The Beluch and Brahui form the bulk of the population of Beluchistan, the former inhabiting the skirts of the mountain ranges, and the latter the mountain districts especially in Sahar Saharawan and Jhalawan. The Brahui are supposed by Dr. Caldwell to be a Dravidian race, and one tribe claim to have come from the shores of the Mediterranean. They are robust, large made men. The southern part has the sea as its boundary, the products of the west find their way through the passes of the Bolan, Mulla and Guler. See Baluchistan Daood Putra, Kelat, Khanazad; Kiang, Kerman Khyber; India, Pisheen; Shawl.

BELUGA CATODON, of Pallas also placed by Gray, Gerard, Lesson and Lacepede, as of the genera Physeter, Delphinus, Delphinapturus, and Catodon—one of the Delphinedæ found in the North Pacific, North Atlantic and Arctic Ocean.

BELUMBU. DUK. fruit of Averrhoa bilimbi.

BELUN and Seote, rivers at the foot of the Kattra pass in Allahabad.

BELUNNAN. HIND? A tree of Chota Nagpore, with hard brown timber.—*Cal. Cat.*

BELUR TAGH, a mountain range in Central Asia, the principal mountain from which the great rivers of that region have their origin. It is the slopes of the Belur Tagh, in the highland of Pamir, between the 40° and 37° of North Lat. and 86° and 90′ of West Longitude that Ch. Bunsen indicates as the Uttura-Kuru of the Arian hindus. The Belur Tagh, is called also Belut Tagh or cloud mountain. It is also the Tian shang or Celestial Mountain of the Chinese and he considers that on the western slope of it and of the Mustagh, the Haro Berezaiti (Albordsh) is likewise to be looked for.

The Belur Tagh is also called Kouen Lun, and is one of the many names given to the Kouen Lun chain forms the northern boundary of western Thibet is not less elevated than the Himalaya, and is covered throughout a great part of its length with perpetual snow. Dr. Thomson reached its axis in the Karakoram pass, elevated 18,300 feet. The Kouen Lun chain has been called the Belur Tagh or Bulut Tag, which Captain Cunningham regards as synonimous with the Balti mountains. It is also called Mustagh, Karakoram, Hindu Kush and Tsun lung or Onion mountains, because of a species of Allium growing there. Its continuation is the Pamir range.

This mountainous range is of great interest in examining the origins of nations. The vast climatic change which took place in the northern countries is attributed in the Bible to the action of water. But, by the Vendidad, the sudden freezing up of rivers is the cause assigned.

Both may have resulted from the same cause, the upheaving of the land by volcanic action, elevating some portions and depressing other into basins, such as the Caspian sea. Ten months of winter is at the present day, the climate of Western Thibet, Pamer, and Belur, and corresponds with that of the Altai country, and the district east of the Kouen Lun, the Paradise of the Chinese. The country at the sources of the Oxus and Jaxartes, therefore, is supposed to be the most eastern and most northern point whence the Arians came. Wherever the Indians may have fixed the dwelling places of their northern ancestors, the Uttaru-kuru, we cannot venture to place the primeval seats of the Arians anywhere, but on the slopes of the Belur Tagh, in the highland of Pamer, between the 40th and 37th degrees of N. latitude, and 86° and 90° of longitude. On the western slope of the Belur Tagh and the Mustagh (the Tian-Shang or Celestial Mountains of the Chinese) the Haro-berezaiti (Albordsh) is likewise to be looked for, which is invoked in the Zendavista, as the principal mountain and the primeval source of the waters. At the present day, the old indigenous inhabitants of that district, and generally those of Kashgar, Yarkand, Khoten, Turfan, and the adjacent highlands, are Tajik who speak Persian, and who are all agriculturists. The Turkoman either came after them and settled at a later period, or else they are aborigines whom the Arians found there, but its slopes are the primeval land of the Arians.—*Ch. Bunsen, Vol. p.* 406. See Arian, Cush, Kaffer.

BELUS, a temple in the City of Babylon, built about B. C. 3,500 or B C. 3,250, in the era of the largest pyramid, but five centuries before the pyramids generally. This temple was built many thousand years after and was quite distinct from the watch tower mentioned in Genesis. The temple of Belus, was in the centre of the city of Babylon and was the vastest monument in Babylon, and the world, and seems to have been erected 323 years before the birth of Abraham. It was a temple but also meant as the watch tower of Babylon, *Bunsen, Vol. IV. pp.* 479, 491, *&* 654. See Hercules.

BELUS, the sun-god of the Babylonians. See Bal, Bel, Hercules.

BELUS, Long. 81° 0' E. and Lat. 25° 34' N.

BELUTA POLA-TALI. MALEAL. Crinum asiaticum—*Willd.*

BELUTTA-CHAMPAGAM. MALEAL. Mesua ferrea.—*Linn.*

BELVIDERE, a house in Bombay, called Mazagong House, once occupied by Mrs. Draper, the Eliza of Sternes Letters. She left her husband about 1770.

BELWA. KARN, a race whose business it is to gather the juice of the palmyra Borassus flabeliformis, speaking Malayalum though settled in Mysore.

BELWIN, a river and town in Mirzapoor.

BELZUINO. IT. Benjamin.

BEM TAMARA. MALEAL. Nelumbium speciosum.—*Willd.*

BEN? BURM. Amomum cardamomum.

BEN. HIND. Eremurus spectabilis.

BENAUDA, also called BENAWAT, the country between Allahabad and the Sarju river.

BEN NUT OIL OR Moringa Oil.

Morunghy yennaiT...AM.	Sahujna ....HIND.
Morunga noona....TEL.	

This oil, the product of the nut of the Moringa pterygosperma is seldom made in
ing lia, nor does it form an article of export.
BELLlong been valuable on account of the
lapa. period, which it may be kept with-
BELLERICg rancidity. The tree is com-
balan. Terminaliof Southern Asia, the flowers,
BELLEROM, there eaten by the natives,
wood, which is called i. used by Europeans as a
Kyndle. It resembles thlish, to which circum-
at Cochin and in Ceylon. name of "horse-
cruiser, Aurora, was built. Indies, it is used for
ment, of this wood, procury watch-makers, and
in the north of Malabar; sdelicate flowers. The
answer its purpose.—*Edge* used by perfumers
in the manufacture of scented oils. Two species of Hedychium and a species of Dendrobium, on the western coast of India, would give a perfume, which we have no doubt would be highly prized in Europe. It is obtained in Egypt from the seeds of Moringa aptera.—*Mason; Faulkner; Hogg. p.* 289.

BEN TREE. In India, the Moringa pterygosperma: in Egypt, Guilandia moringa, Moringa aptera.

BENA. BENG. Scented grass, Andropogon muricatus.

BENABA, also BIA, also BIBLA. DUK. Peterocarpus marsupium.

BENA-JONI. BENG. Sporobolus diander, Diandrous bent grass.

BEN AMMI the Ammonites, the descendants of Ben Ammi, son of Lot, by his younger daughter Ammi, the other son was Moab. See Moab. Ammi.

BENARES, the name of a district and a town in the N. W. Provinces of India. The town of Benares is built on the left bank of the Ganges, in Lat 25° 18' 4 N. L. 82° 59'8 E. 347 feet above the sea level and 74 miles East of Allahabad. The people call it Kasi. It has many temples and shrines, and hindus resort to it in pilgrimage. The river Ganges bends round the town and looking from the river is a beautiful prospect. Its population is estimated at near 20,000. The hindu temple of Vis-weswara, has been, for many centuries, the chief object of veneration at this town. The old temple was partially destroyed by the mahomedans in the reign of Aurungzeb, the present was built up by Ahalya Bai, a Mahratta princess and is remarkable for the beauty of its minute architectural embellishment. Its length along the river front is about 4½ miles. The houses are built of stone, and some of them are three or four stories high, and tastefully ornamented on the outside. The ghâts, or bathing-places, are large buildings many stories high, with handsome verandas and majestic portals; but their distinctive characteristic is seen in the flights of wide stairs. The manufacture of gold and silver brocade in Benares, is well worth seeing. The looms, which are very simple in their construction, are situated at a short distance from the city. The gold and silver pass through many hands before they are formed into thread. Indeed, Benares has ever been a great place of trade and is so at this day. Brocades (kamkhab), gold woven scarves (dopatta), and silks are consigned from this city together with a kind of yellow silk dhoti, called "pitambar," and a dark-blue silk with white spots, called "bùnd;" also the silk sari or scarves, exclusively for women's wear, forming both a skirt and a scarf. Its lacquerware is good. Two kinds of resin are used, one called rahl, is sold at eight annas the seer, and is said to be brought from Mirzapoor to Benares. The fine lacquer is made of a resin called gaharba, for a seer of which one Rupee and two Annas are paid. There is a Maha Rajah of Benares. This family was founded by Munsa Ram, Zemindar of Gungapore, who died in 1740, and was succeeded by Rajah Bulwunt-sing, who joined Shah-Alam and Shujah-o-Dowla in their invasion of Bengal in 1763. He joined the British camp with the emperor after the battle of Buxar, and in the arrangements made with the emperor in 1764, his zemindary was transferred from Oudh to the British Government. The insurrection of Vizier Ali occurred on the 14th January 1769. In March 1862 the Maharajah received the assurance by Sunnud, that in the event of failure of natural heirs Government will permit and confirm any adoption of a successor made by himself or by any future chief of his state that may be in accordance with hindoo law and the customs of his race. The Maharajah receives a salute of 13 guns.—*Aitchison's Treaties, p.* 41. *Schlagentweit; Schonberg's Travels in India and Kashmir, Vol. I. p.* 99. See Buddha; Bhairava, Chandra-Vansa, Gour. Inscriptions, Jay Sinhab, Infanticide, Jain, Jogi, Mahratta, Khutri Linga, Ryotwari, Panda, Ramanandi, Rajput, Ras-yatra; Sakya, Sevaji, Topes.

BENA-USEER. HIND. Anatherum muricatum.

BENDA. TEL. also BENDAKAI. TAM. Abelmoscus esculentus, *W. and A.* 192.—*Hibiscus longifolius, R. Vol. III. p.* 210. The esculent Benda or Okra.

BENDALU. Corruption of Pind-Alu. PERS. Dioscorea aculeata.

BEND-AMIR, is a town of sixty houses, named from a dyke or band, constructed in the tenth century by Amir Uzun Delemi, and from whom the river Kum Feruz, after its junction with the Murghab, (the Palvar and Medus of the ancients) derived its name. A flat bridge of thirteen arches is thrown over the stream, the waters of which form a beautiful cascade, just beneath it. As the bed of the river is very deep, seven other dykes have been constructed in its lower course to procure water for the irrigation of the fields. It has been made famous by the bewitching strains of Moore, whose language surpasses the reality, though in the spring time Bendamir is doubtless a lovely spot.

There's a bower of roses by Bendemeer's stream,
And the nightingale sings round it all the day long,
In the time of my childhood 'twas like a sweet dream,
[illegible] hear the birds' song.
[illegible] bower and its music I never forget,
But oft, when alone in the bloom of the year,
[illegible] there yet?
[illegible] by the
[illegible] soon withered that hung o'er [illegible]
But some blossoms were gathered, while
And a dew was distilled from their flowers, that gave
All the fragrance of summer, when summer was gone.
Thus memory draws from delight, ere it dies,
An essence that breathes of it many a year;
Thus bright to my soul, as 'twas then to my eyes,
[illegible]s that bower on the banks of the calm Bendemeer."

—*Baron C. A. De. Bode's Travels in Lauristan and Arabistan, p.* 169-70. *Pottinger's Travels, p.* 239. *Ouseley's Travels, Vol. II. p.* 326. See Araxes, also Aras.

BENDI. BENG. (possibly Mhendi, Hind.) Henna.

BENDI. MAR. Thespesia populnea.

BENDI. DUK. Abelmoschus esculentus.

BENDU. TEL. Æschynomene Indica, *L.*—*W. & A.* 679; *Ic.* 405.—Hedysarum nelitali, *R.* iii. 365.—*Rheede*, ix. 18.

BENG. TAM. Bignonia suaveolons.

BENGAL, a province of India, through which the great rivers Ganges and Brahmaputra flow to the bay of Bengal. Its early history is obscure. The rajas of Bengal, capital Kanauj, Gaur? who have been identified as the first, were the family of Bhupala. Abu'l Fazl however enumerates three dynasties as prior to this family. The first of the Vaidya Rajas, was Sukh Sen, in A. D. 1063. Its last hindu king was Lakshmanan. He had been placed on the throne in infancy, and during his long reign had been a just and liberal ruler. In A. D. 1203. Bengal was overrun by Bakhtiar, a general of Mahomed Gori and the last hindu king escaped to Orissa. Bengal was amongst the first of the places of India with which the English E. I. Company traded. Mr. Aitcheson tells us that "in 1599, an Association was formed in London to trade with the East Indies, and on 31st December 1600 they obtained an exclusive Charter of privilege, constituting them a body politic and corporate, by the name of "The Governor and Company of Merchants of London trading to the East Indies." This was the origin of the British empire in India, and the Company's factory was established at Surat. In 1624, an order, commonly called a "farman," was obtained from the moghul emperor, permitting the English to trade with Bengal, but restricting them to the port of Piplee in Midnapore. The regular connection of the Company with Bengal, however, did not commence until 1642, when a factory was established at Balasore, and in 1652, permission was obtained for unlimited trade without payment of customs dues, on an annual payment of Rs. 3,000. In 1661 Charles II. granted a new Charter, vesting the Company with power to make peace and war and to send to England unlicensed traders, [illegible] a fresh Charter issued in 1693, limited [illegible] company's powers to twenty-one years. [illegible] a rival Company was formed, called the new [illegible] English Company, but in 1702, this amalgamated with the older London Company, and the two parties styled themselves the United Company of Merchants Trading to the East Indies. During the administration of Shaista Khan, subadar of Bengal, the English were subjected to much oppression. Shaista Khan exacted a duty of 3½ per cent. on their merchandize, and his officers arbitrarily extorted large sums from the factors, till in 1685 it was resolved to seek redress by force of arms. The hostilities of the English exasperated the emperor Aurungzebe, who ordered that the English should be expelled from his dominions. The Company's factories were seized, and their affairs were brought to the brink of ruin, when negotiations for peace were set on foot, and a reconciliation was effected.

In 1698 the English obtained permission from Azeem-oos Shah, grandson of Aurungzebe, and governor of Bengal, to purchase the towns of Chuttawutty, Govindpore, and Calcutta. The sunnud is not supposed to be extent; but it is more a matter of antiquarian interest than of historic importance. Ali Vardi Khan in 1740, rose to be subadar of Bengal.

In 1756 Suraj-ud-Dowla became subadar of Bengal. He had previously manifested aversion to the English. The Governor of Calcutta having refused to deliver up one of the principal officers of finance under the Nabob's late uncle, the Governor of Dacca, whom the Nabob had resolved to plunder, Suraj-ud-Dowla attacked and captured Calcutta on 5th August. One hundred and forty-six English fell into his hands and were thrust into a guard room, since called "the Black Hole," where all save twenty-three perished in the night. On 2nd January 1752 Calcutta was re-taken by a force which had been despatched from Madras under Clive and Admiral Watson, and on the 4th of February the Nabob's army was surprised and defeated by Clive. Overtures were then made by the Nabob, and on 9th February 1752 a treaty was concluded, by which the Nabob agreed not to molest the Company in the enjoyment of their privileges, to permit all goods belonging to the Company to pass freely by land or water without paying any duties or fees, to restore the factories and plundered property, to permit the Company to fortify Calcutta, and to establish a mint. Three days after, a contract with the Nabob, offensive and defensive was signed. War having broken out between France and England, Clive attacked the Settlement of Chandernagore, but Seraj-ud-Dowlah furnished the French with arms and money, and was preparing to make common cause against the English. At this juncture a confederacy was formed among Seraj-ud-Dowlah's chief officers to depose him. The English joined this confederacy and concluded a Treaty with Meer Jaffir Ali Khan [illegible] the battle of Plassey, which was fought on the 23rd June 1757, the power of Seraj-ud-Dowlah was completely broken and Jaffir Ali was installed by Clive as Subadar of Bengal.

In 1758 the Shahzada, afterwards Shah Allum, having, in consequence of some dispute with his father, the emperor Alam-gir II., fled from Delhi entered into a league with the subadars of Oudh and Allahabad for the conquest of the Lower provinces. The prince advanced into Behar with about 40,000 men, and laid siege to Patna. Meer Jaffir was greatly alarmed by the prince's advance, and at his solicitation Clive marched with all the force he could muster to the relief of Patna; but ere he reached that place the Shahzada's army had almost entirely dispersed.

On Clive's return the nabob Mir Jaffir granted him as a jagheer, the quit rent, about three lakhs per annum, which the Company had agreed to pay for the Zemindary of Calcutta.

In 1759 an armament of seven ships from Batavia unexpectedly made its appearance in the mouth of the river.

To meet his pecuniary engagements, Mir Jaffir had recourse to the severest exactions. He resigned himself to unworthy favorites; and it became necessary to depose him in favor of his son-in-law, Meer Kasim Ali Khan, with whom a Treaty was concluded on 27th September 1760, by which the British obtained possession of Burdwan, Midnapore and Chittagong.

Serious disputes arose between Mir Kasim and the British regarding the right of the servants of the Company to trade and to have their goods passed free of duty which led at last to war. In 1764 Mir Jaffir agreed in addition to the sums for which he had contracted in the recent Treaty, to pay five lakhs a month towards the expense of the war then being carried on against the vizier of Oudh, so long as it lasted.

Meer Jaffier died in January 1765, and was succeeded by his son Nujum-ud-Dowla, with whom a new treaty was formed, by which the Company took the military defence of the country entirely into its own hands, and among other conditions the Nabob bound himself to appoint, by the advice of the Governor and Council, a Deputy to conduct the Government, and not to be removed without the consent of the Council."

"In 1764 Shuja-ud-Dowla, the vizier of Oudh under the pretence of assisting Meer Kasim, Ally, had invaded Behar, but his army was completely routed, and the vizier was obliged to throw himself on the generosity of the English.

"Nujum-ud-Dowla died on 8th May 1766, and was succeeded by his brother Syf-ud-Dowla, a youth of sixteen.

" Syf-ô-Dowla was succeeded in 1770 by his brother Mubarak-ud-Dowla, with whom a new engagement was made. By this engagement the Nabob's stipend was fixed at 81,81,991 Rupees. This is the last treaty which was formed with the Nabob. The office of subadar had now become merely a nominal one, all real power having passed into the hands of the British. In 1772 the stipend was reduced to sixteen lakhs a year, at which rate it is paid to this day. Bengal was declared to be the chief presidency on the 16th June 1773. By the Treaty of 22nd February 1845 with Denmark, the British Government obtained possession of Serampore. Bengal proper is the lower part of the plain of the Ganges, and includes the delta, the mouth of the Fenny, and Balasor. It is bounded on the west by the hilly districts of Behar and Orissa, on the east by the Assam valley, the Khassia, Tipperah and Chittagong hills, to the north the base of the Himalaya, and on the north west the Cosi river. Near the base of the Himalaya the surface is a little elevated. But, elsewhere, Bengal is flat intersected by the water-courses formed by the branching of the Ganges and Brahmaputra and their tributaries. The climate is comparatively equable. The rainfall ranges from 60 to 100 inches. Calcutta mean temperature is 78° its fertility is celebrated. Eastern Bengal extends from the slopes of the Himalaya mountains below Darjeeling in the north, to the head of the Bay of Bengal in the south, or, roughly, is enclosed within the 22nd and 27th parallels of north latitude. The eastern boundary commencing at Chittagong, becomes interlaced with the hills which limit the empire of Burmah, and stretches out through the extensive valleys of upper and lower Assam, as far as the gorge in the Himalaya mountains, through which the great river Brahmaputra descends from Thibet. The western limit follows the course of the rivers Hooghly and Bhagiruttee, and passes through Calcutta, Moorshedabad, and Dinagepore up to Darjeeling. Its length from north to south is about 350 miles; its breadth 300 miles. The total area of this country is about 100,000 square miles. That of Great Britain being 120,000. The population, estimated at fifteen millions, may be looked upon as a simple, rural people, covering the cultivated area of the country very evenly, and but moderately condensed in towns, save in the metropolis of the Bengal Presidency. Per square mile, it is perhaps the most densely populated country of equal extent on the face of the globe. 'Eastern Bengal' is certainly a most fertile and prolific tract of land, and is suited to the most economical modes of cultivation. Watered by the two great rivers, Brahmaputra and Ganges, supplied with innumerable tributary rivers traversing the country like net work, there are abundant means at all points for irrigation, and a most extensive system of water carriage at all seasons of the year for the usual country boats. The country is mostly covered with crops of rice and oil seeds, and open pastures, studded with beautiful groves of trees, which shelter and nourish the cattle belonging to the many villages that stud this interesting locality. The native of Bengal, alike hindu and mahomedan in his physical organization, is feeble even to effeminacy. His pursuits are sedentary, his limbs delicate, his movements languid. During many ages, he has been trampled upon by men of bolder and more hardy breeds. Courage, independence and veracity are qualities to which his constitution and his situation are equally unfavorable. His mind is weak, even to helplessness, for purposes of manly resistance, but its suppleness and its tact move the children of sterner climates to admiration, not unmingled with contempt. Large promises, smooth excuses, elaborate tissues of circumstantial falsehoods, chicanery, perjury, forgery are the various weapons offensive and defensive of the lower Ganges. All these millions do not furnish one sepoy to the native army. On the South West frontier of Bengal, are Chota-Nagpore, Sir-Goojah, Palamow, Ramgurh, Hazareebagh, Mynpat and Amarkantak. The elevation of Chota-Nagpore, is 3,000 feet with hills running E. and W., but of little heighth; Sirgoojah, is mountainous, rising 600 to 700 feet above the level of Chota-Nagpore. Mynpat is a table-land, about 30 miles S. E. from Sirgoojah town and about 3,000 or 3,500 feet high. Palamow district is very mountainous. Hazareebaugh town, 24°, 85° 54′; 1,750 feet. Slope of country to S. towards Sumbulpore N. and E. parts of district. Very mountainous, but level, and even depressed towards Mahanudy. Sumbulpore town, only 400 feet. Orissa table-land then rises on the southern side of Mahanuddy, in some places to 1,700 feet backed by the chain of E. Ghauts. Amarkantak, jungly table-land, 22° 40′ 81° 5′ 3,500 feet. The soil in the plains is generally fertile, producing abundant crops of wheat, barley, rice, pulse, excellent vegetables, cotton and sugar-cane. The uncultivated parts are overrun with a coarse grass. A great part of the region quite unknown. (—*Aitchison's Treaties, &c.* *E. Calcutta Railway*, p. 158-9. *Macauly.*)

The second tract, consists of the districts lying between the Ganges and the Burhampooter, extending northwards to the foot of the Himalaya. The character of the country is similar to the cleared portion adjoining the Soonderbunds, it is however a slightly higher tract of country and is specially suited for the growth of fibrous plants, for which the neighbourhood of Rungpore is greatly celebrated. The population inhabiting this tract of territory is scarcely less dense than the first tract, whilst the general appearance of the country, always flat, is much the same as in the other parts of Eastern Bengal.

The districts immediately East of the Burhampooter, including Dacca and Sylhet, constitute the third tract, and presents greater resources than either the first or second. The greater portion of its surface is occupied by the plains of Mymensing and Sylhet through which the river Soornia meanders. The old channel of the Burhampooter, now nearly dry, winds along by Dacca from the Eastward. This tract affords a great variety of produce, such as cotton, sugar-cane, rice and other grains.

Assam is a great valley stretching from the head of the Bay of Bengal to the north-east, towards China. It is the ancient Kamrup, and its history (' Assam Buranji') by Huli Ram Dhaikiyal Phukan, of Gohati, who, after bringing down the genealogies to the Kshatriya dynasty of Dravir (Dharmapala) says, he invited brahmins from Gaur to his court, north of the Brahmaputra, and gives the following dynasties.

[illegible] Brahmaputra dynasty, reigned 240 years. [illegible] A. D. 1478, Assam was divided into [illegible] petty states, and in 1498, it was invaded [illegible] Ghazi, son of Hoossain Shah.

Indrayansa (Indu) dynasty reigned [illegible] D 1330 to 1780, with the interregnum caused by the invasion of Hoossain Shah, [illegible] became independent in 1230, and [illegible] nquests and was named Assama (unequalled), hence Assam. The language spoken, the Assamese, is almost, or identically, the same as the Bengali. This long valley runs from the eastern side of Bengal proper from the 90° of east longitude in a north-easterly direction as far as the Mishmee hills in longitude 97° east. The valley is about 60 miles in breadth and 350 miles long, and has the river Brahmaputra running through its centre. It is, in fact, the valley of the Brahmaputra, and is now called Lower and Upper Assam, being bounded on the north by the Mishmee, Aboor and Meeree hills and, on the south, has the Naga, [illegible]ossya and Garrow hills. Assam in ancient [illegible] was of the buddhist faith, the brahminical religion was introduced about A. D. 78. [illegible] all Assam there are 983 mouzzah, containing 4,006,610 begahs, the rental of rice land is 1*s.* 10*d.* an acre and 1s. 6*d.* for all other kinds. The whole of Assam, omitting the permanently settled district of Goalpara, pays only £100,000 of land revenue. The whole population from the baby at the breast to the very few old men use opium, and in 1864-5 the population consumed £143,543 worth of that drug. Before the incursions of the Burmese, Assam had its roads, bridges, cities and civilization, but under British rule it has fallen off. Assam is one of the most fertile districts in India, the mahomedans found its people in Upper Assam, hardy and courageous but towards the middle of the 19th century they had become apathetic and unambitious, though those of Kamroop were less so. But the Assamese were to the mahomedans what the Numidians and Mauritanians were to the Romans.

In the military commands of the Bengal Presidency about 100,000 soldiers are employed. Most of the places in Kumaon are four and five thousand feet in height above the sea; in Sirhind, Umballah and Ferozepore are low, while Subhatoo, Simlah and Juttogh have elevations of six, seven, and eight thousand feet.

The countries on the right or south bank of the Ganges have a lower altitude than those on the north, but the features of the country are still well marked. One part on the right bank includes the provinces of Allahabad and Malwa, is a strongly marked natural division, the country north of the Nerbudda, being crossed from east to west by the Vindhya mountains, between the 22° 23° of north latitude, and their eastern extremity is continued onwards towards the Rajamahal hills which jut into the Ganges at Sicrygully, Pointy, and Pattengottah about latitude 25° 12′ north. The Vindhya range near their western extremity, again, is met at right angles by the Arravalli, which run between the 73° and 76° of east longitude, northwards for 200 miles towards Delhi, and, thus enclose a triangular tract of table land elevated from 1,300 to 2,200 feet above the sea, which has received the name of Central India. The greater part of these districts is held by about 40,000 soldiers in all, part Madras and in part the soldiers of the Bengal and Bombay Presidencies, the troops being distributed on the table lands and towards the passes of the mountains and the fords of the Nerbudda. In that central tract the thermometer ranges from 28° in the cold season to 98° in the hot weather, and the rains fall in July, August, and September. To the south-west and west of the Arravalli, Rajpootanah countries extend as far as the river Indus, and several of them consist of sandy, inhospitable deserts with few inhabitants round the Oasis. This tract belongs to tributary princes who have been under British protection since the beginning of the 19th century. It is, like Central India from which it is separated by the Arravalli mountains, from 1,000 to 2,000 feet above the level of the sea, the land declining to the west towards the valley of the Indus. Though deluged with rain in the rainy season, from the nature of the soil and the absence of all contrivance to preserve the waters much of the country remains a desert; perhaps Ulwar, Jeypore, Kotah, Bundi and Oudeypore have very fair land, but Jesselmere, Bickaneer and parts of Jodhpore or Marwar are particularly barren.

Amongst the provinces last added to British dominion were those conquered from the Sikhs in 1846, and 1849, which have long been known as the Punjab, or country of the five rivers, Peshawar and Mooltan.

Peshawar lies between the Indus above and below Attock, and the Khyber mountains, through which leads the Khyber pass,—being bounded on the north, by Suhwat, and the region lying between it and the Indus, on the east, by part of the last mentioned territory the Indus and the territory of the Affghans holding the Salt or Hala range; on the south by the possessions of the same Affghans, and on the west, by the Khyber mountains and the Affghan province of Jellalabad. Its climate is very hot in summer, the thermometer frequently reaching 110° or 112° in the shade. The heat is, however, occasionally mitigated by the breeze from the neighbouring mountains and as the country, naturally fertile, is well watered by the Indus, the Cabool river, the Bara and some other streams of less importance, and is moreover, well cultivated, it is amazingly productive. In annexing all the Sikh states, Jummoo excepted, as well as Peshawar and the Derajat between the river and the mountains, the British frontier was advanced beyond the Indus, adding thereby, 100,000 square miles to British territory, with a population of three and a half millions, yielding a revenue of about a million sterling, and giving promise of containing great mineral wealth.

The Bengal army is now distributed over 629,022 square miles of territory, amongst a population of 66,484,538 inhabitants, speaking the Persian, Pushtoo, Punjabee, Hindustanee, Hindee and Bengalee languages; besides the Oorya language in Orissa and the Rakhooi in Arracan.

BENGAL ALMOND. ENG. Terminalia catapa.

BENGAL BAY, this great bay lies between the Peninsulas of India and Malayanesia. It receives many great rivers, the Ganges, Bramahputra, Irawaddy, Sitang and Moulmein, and has a coast line of about 4,800 miles. Pliny does not make mention of any voyages of the Romans to the gulf of Bengal, or to the Malay Peninsula (the golden Chersonese,) although it is clear from Strabo who wrote before Pliny that the Ganges have been sailed up as high as Palibrotha. Ptolomey's Geography, said to be composed about 60 years after Pliny, mentions the diamonds found in the banks of the Sumbulpore river, also speaks of Arcati, the capital of the Sorae (or Sora-mandalum, from whence corruptly Coramandel), Mesolia, the district which contains Masulipatam; the river Cauvery, under the name of Chabaris. Ptolemy scatters islands over the Bay of Bengal, probably meant for the Andaman and Nicobar Islands, and most of them said to be inhabited by Anthropophagi, and this idea has also been adopted by modern navigators. The Bay of Bengal is liable to be swept by hurricanes, which travel quite across the bay, and by earthquakes, often followed by a storm wave.—*Rennells' Memoir, p.* 39. See Bay of Bengal. Cyclone.

BENGAL CURRENTS. ENG. fruit of Carissa carandas.

BENGALEE, a river near Chyliabaree in the Bograh district.

BENGAL GRAM, ALSO Chick Pea. ENG. Cicer areitinum.

BENGALI BADAM. MAR. Fruit of Terminalia catapa.

BENGALI-SAN. This is identical with the Saka solar year. See Fasli.

BENGAL MADDER. Rubia cordifolia.—*Linn.*

BENGAL QUINCE. See Dyes.

BENGAL ROOT, an old name in Europe for the root of Zingiber casumunar, still known in commerce as the Casumunar.—*Hog. p.* 784.

BENGAN. HIND. Solanum melongena, The Valayati or foreign bengan is the Solanum lycopersicum.

BENGAN. HIND. Also Brinjal. ANGLO-HIND. Solanum melongena. The Eggplant.

BENGAN. A mountainous district in Mindoro, occupied by the Negrito race. See Mindoro.

BENGH. PERS. Bhang; Cannabis sativa.

BENGI. HIND. Cannabis sativa.

BENGY. An aboriginal race in India. See India, p. 327.

BENI. Arab. when the bedouin Arabs speak of tribes they say *Beni*, which signifies *the sons* of some persons; thus Beni *Leghat* means the tribe of Leghat. These small tribes have each its shaikh who is commonly dependent on the grand shaikh of some more potent tribe. The Aenezi, according to Burckhardt, are the most powerful Arab nation in the vicinity of Syria, and if we add to them their brethren in Nedjd, they may be reckoned one of the most considerable bodies of bedouins in the Arabian deserts. They are nomades, in the strictest acceptation of the word, for they continue during the whole year in almost constant motion. In spring, they approach the fountains of Syria and form a line of encampment extending from near Aleppo to eight days' journey to the south of Damascus. Th[illegible] cipal residence, however, d[illegible] [illegible]chase and the Haouran, and its neighbourhood, when they encamp near and among the villages, while in the more northern country, towards Homs and Hamah, they mostly keep at a certain distance from the inhabited grounds. In these parts, they spend the whole summer seeking pasture and water, purchase in autumn, their winter provision of wheat and barley, and return after the first rains into the interior of the desert. They are the only true bedouin nation of Syria, the other tribes in the neighbourhood of this country having more or less degenerated in manners, and several being reduced to subjection; while the free born Aeneze is still governed by the same laws that spread over the desert at the beginning of the mahomedan era.

Beni Szakhr are a tribe of free Arabs. According to Burckhardt, they rove in the plain from the fourth to the fifth station of the Hadj, and thence westward towards the mountains of Belkaa. They were employed by the pasha of Damascus for the defence of the caravan against the other tribes. They live by the breeding of camels, for the use of the pilgrim caravan, of which they have a very considerable number. Though smaller than the Anadolian, Turkman, or Kurd camels, they are better able to bear heat and thirst than the latter, are chiefly of a light or reddish grey colour, with very little wool about their necks. The beni Khaled in Niebuhr's time were one of the most powerful tribes of Arabia: they conquered the country of Lachsa and advanced to the sea.

The beni Hakim, a tribe eastward from the Euphrates, are given to husbandry.

The bedouins who occupy the great western desert of Oman have neither houses nor tents, but live under the shade of trees.—*Wellsted' Travels, Vol. I. p.* 365. *Niebuhr's Travels, Vol. I. p.* 207. *Robinson's Travels, Vol. II. pp.* 169, 183, 238, See Arabs, Bedouin Arab, Wahabi.

BENINCASA CERIFERA Savi. *W. and A.*

Syn.

Cucurbita cerifera.—*Fisch.*
,, hispida.—*Willd.*
,, pepo.—*Roxb. Fl. Ind. Rheed.*
,, alba.—*Rob. in. E. I. N.*

Kumra	BENG.	Kumbulum	MALEAL.
White Gourd	ENG.	Pitha	PANJAB.
Pumpkin	,,	Kumbuli	TAM.
Gal kaddu	HIND.	Budide gummadi	TEL.
Chal kumra	,,		

This one of the Cucurbitaceæ has large white flowers. The rind of the fruit is used as a bottle. The fruit of one variety of it forms the sounding body of the sitar ; and that of another to the ty is used as floats for swimming rivers. 1864-5 fruit is eaten by the people in their worth of that curries. The fruit is often candied. It is the tallow-gourd of China, and remarkable for having its surface, when ripe, covered with a waxy exudation, which smells like rosin. A wild variety, Teta-laoo Beng, is poisonous.—*Williams. Voigt. Roxb. p.* 718. *Dr. J. S. Stewart.* See Cucurbitaceæ ; Gourds.

BENJAM. SUMATRAN. Sesamum Indicum or S. orientale.

BENJAMIN.

Luban	AR.	Benzoinum	LAT.
Liban	,,	Kaminan, Malay	
Hasi-luban	BENG.	Kamaya manan minan	MALAY.
Laoban, also Ileku-ka-ma?	BURM.	Sambrani	MALEAL.
Benjamin	ENG.	Kaminian	MANIL.
Benzoin	ENG. FR.	Luban	PERS.
Benzoe	GER.	Hasi-ul-javi	,,
Luban	GUZ. HIND.	Devad'hupa	SANS.
Cowri Luban	,,	Caloowell	SINGH.
Lubani-ud	,,	Bengui	SP.
Belzuino	IT.	Malacca sambrani.	TAM.
Menian	JAV.		

Benjamin is a word of Hebrew origin which has in the lapse of time been adopted for several substances now in use. In Upper India, Benjamin is the name given to the resin of Boswellia thurifera, but in commerce it is generally applied to the resin of the *Styrax Benzoin* or Benjamin tree, which grows in Sumatra,* Borneo, Siam, and Java chiefly in Java and Sumatra. Crawfurd mentions that the Styrax benzoin tree is raised from the seed, is of moderate size, and confined to the islands of Sumatra and Borneo. In Sumatra, in the country of the Batakrace, and in Borneo on the northern coast of the Brunai territory. The balsam is obtained by incision in the trunk of the tree practised after it has attained the age of five or six or seven years. The juice which first exudes is the purest and most fragrant, it hardens on exposure to the air and becomes brittle and semi-transparent. The resin is white and transparent at first. About 3 lbs. are given by each tree for six years. The white Benjamin, is termed Cowrie luban in India, and is a superior kind.

It is a gum-resin, and is generally met with in the form of dry hard grey masses, rather shining, brittle, formed of ovoid, whitish tears, like stripped almonds. The best comes to India from Sumatra. It is much used as a perfume, and as incense in places of worship, in the composition of frankincense and in the manufacture of the pastiles called ud-batti. Benzoic Acid is procured from this substance. About 120 tons are imported into England for Java, Sumatra and Borneo, and the prices range from £100 to £900 the ton.—*Stat. of Com. McCulloch's Com. Dictionary, p.* 61. *Crawfurd, Dict. Archipelago, p.* 50. *Faulkner. Com. Prod. Hogg. Vegetable Kingdom. Cat. Exbit. of* 1862. *Ainslie Mat. Med., p.* 5. *Marsden's Hist. of*

*Sumatra, pp.*155-56. *O'Shaughnessy, pp.* 430-431. See Benzoin, Resins. Styrax Benzoin.

BENKAR, Hind. Hiptage madablota.

BENKATAN a tribe on the E. Coast of Borneo. See Kyans, p. 568.

BEN NUTS and **BEN** seed **OIL** are both probably from Moringa aptera: the seed of M. pterygosperma yield no oil.

BENOUDHA, the country between Allahabad and Surwur, the present country of Goruckpoor.

BEN-TEAK. Anglo-Indian.

Ven-taku	Can.	Nana	Mahr.
Bandara	Mahr.	Bellinger	Maleal.

This tree is the Lagerstrœmia microcarpa. It is common in Wynaad and on the western ghauts; wood prized for making coffee cases much used by the native carpenters for house-building and masts for dow pattamah, and other country vessels. It grows to ninety and one hundred feet long, and from twelve inches to three feet in diameter; it is perfectly straight and without branches, excepting at its top; the leaves are small and very thick. This wood is not so durable as the poon, but it may be considered of the same texture, although it is very much lighter in colour, and in this respect much resembles the American red oak.—*Edye, M. & C. McIvor.*

BENTENNE, in 7° 21'; 81° 11', a town in Ceylon, on the right bank of the Mahavelli Ganga, north of Ba'dula, mean height of the village 343 feet.

BENT GRASS, species of Agrostis.

BENTHAM, a Bengal Civil Servant, who aided largely in extending a knowledge of the botany of India. See Botany.

BENTHAMIA, a genus of plants of the Himalayas, China and Japan, B. floribunda extends from the eastern Himalaya to the Sutlej.—*H. et. Thw. p.* 105,193.

BENTHAMIA FRAGIFERA.

Thurnel. Punjabi.

This is found in Nepaul and in the Sutlej valley between Rampur and Sungnam at an elevation of 6,000 feet. The wood is small, fruit is large of the shape of a strawberry edible, and is used as a preserve.—*Cleghorn, Punjab Report, p.* 64. *Hogg. Veg. King, p.* 367. *Powell, Punjab Products.* See Cornus.

BENTINCK, Lord William, a military officer of the British Army, who was governor of Madras from 1803 to 1806, was afterwards employed in Spain, and from 1827 to 1834, was Governor General of India to which he added the office of Commander-in-Chief. In his latter service, in India, he did much for education, and he abolished the rite of Suttee. He died in England on the 17th June 1839.

BENTUL. Malay. Name of a vegetable in use at Bawean.

BENUA, a negro race of the Malay Peninsula. See Kedah.

BENU MASH. Pers. Phaseolus max.

BENZA, P. M. A native of the Ionian Islands, a Madras medical officer, a writer on the geology of the country betwixt Madras and Neilgherries, *vid* Bangalore also on the geology of the Neilgherry and Koonda mountains. Notes on the geology of the Northern Circars in 1835.—*Dr. Buist's Catalogue.*

BENZOE. Ger. Benjamin.

BENZOIN NEESIANUM. Its fruit, called Nipal berries, have a smell of Cajeput oil. A bush 8-10 feet high, bark highly aromatic and tonic, infusion of twigs vermifuge, berries yield aromatic oil. Its small branches are used in decoction as a gentle stimulant: and its dried berries in lieu of all-spice. The name has been applied from its strong odour of Benjamin, but it is not a source of that article.—*O'Shaughnessy, page* 558. *Hogg. p.* 623.

BENZOIN ODORIFERUM. Nees. Laurus Benzoin, Linn. Oil of the berries aromatic, bark highly stimulant, and tonic. It is mentioned by Hooker and Thompson as a plant of the E. Himalaya.—*O'Shaughnessy, p.* 548. *Voigt.*

BENZOIN. Eng. Fr. or Benjamin; Benzoinum. Lat. an odoriferous gum-resin exported from Sumatra, Borneo, Java, and India. It reaches Britain in small chests, about 120 tons a year and the price ranges from £5 to £45 per cwt. according to quality.—*Statistics of Commerce.* See Benjamin.

BEO. Hind. Gracula religiosa.

BEOHAR. Hind. Money lending; traffic.

BEOOR-BANSH. Beng. Bambusa spinosa.

BEOS, a river of the Saugor district, near Saugur cantonment.

BEP-THAN.—? In Amherst, a timber used for making handles for spears and swords; it is a superior wood, and looks like white Jarrool. A timber of same name in Tavoy, used for building.—*Captain Dance.*

BEP-WON. In Tavoy, a timber used for building.—*Captain Dance.*

BER. Hind. Amongst Rajputs, a feud.

BER. Hind. The people of India apply this term to several plants species of Zizyphus, Z. flexuosa jujuba nummularia and vulgaris, also, to a Capparis spinosa and a species of salix.

BERA. Hind. Nima quassioides also Glochidion sp. also Ficus Indica.

BERA. Hind. A sheep.

BERAD. Mahr. A predatory tribe in the south Mahratta country inhabiting the hills and thickets and subsisting by chase and plunder. Wilson says they are the same as the Ramoosi, but this does not seem correct It may be the Bedar.—*Wilson's Glossary.*

BERAMBA. A town of ancient Chaldea.

BERAR, a province in the northern part o the peninsula of India. It included Ellichpur and Nagpore, but part is now designated the Hydrabad assigned territories and part is in the Central Provinces. The Mahratta power was established in Berar by Ragoji Bhonslah in 1730 and Nagpore was then taken. The southern part of it reverted to the Nizam of Hydrabad, but it was assigned to the British in 1861, at an estimated value of 32 lakhs, or £320,000 a year. The Nizam had left the contingent perpetually in arrear. The claims liquidated by the British Government, amounted at least to fifty lakhs of Rupees and Government demanded that territory should be assigned sufficient to provide for the contingent, and the interest of the debt. Five districts, viz., the two divisions of Berar, the western districts, and the two divisions of the Raichore Doab were accordingly taken over ; their estimated size being

	Sq. Miles.	Population.
North Berar,.........	12,900	800,000
South Berar,.........	12,900	800,000
Western Districts....	5,100	400,000
E. Raichore Doab....	3,300	200,000
W. Raichore Doab....	3,300	300,000
	37,500	2,500,000

A territory larger than Ireland, and half as large again as Denmark. The north and south Berar have alone been retained as the Hydrabad assigned territories and in 1868 had a population of 2,231,565 in a total area of 17,125 Sq. miles. For this there were 2,546 police, of all grades, or 1 to every 855 people and to every sixth square mile ; and in 1867, the revenue had reached 62 lakhs. The great increase of revenue was the result of a settled country. The districts had been utterly neglected by the local Government. There were no roads, and in bad weather no means of communication. The country covered in parts with jungle in which soldiery were useless, was also crossed and surrounded by hills, the constant refuge of banditti. In some places Arab chiefs held possessions, executed justice, and wielded the power of feudal barons. In others, hereditary landholders fought with each other and their sovereign, maintaining bands of armed men, and paying them in plunder. Others were infested entirely by tribes, who had been plunderers since the Aryan race crossed the Suleiman. Over the whole country, Rahtore, Rohilla, Arab, Pardee, some with quasi legal rights, and some with only their swords wandered at will. A commission was formed and within six weeks of their arrival, riotous crime had ceased in the Assigned Districts. The Arabs who had laughed at a generation of Farmers-General fled the moment they were told by a quiet Englishman that they must go. The Rajpoot, Rohilla, and others were formed into Police Corps, and proved admirably efficient, the predatory tribes slunk back to the hills. The Zemindars dismissed their retainers, and for the first time in the memory of man, there was internal peace in Berar. The Hydrabad Assigned Districts' Commission, consists of 2 Commissioners, Deputy Commissioners, and Officers and Subordinates employed under the Civil Departments of Government. The head quarters of the five Civil Districts are fixed respectively at the stations of Akola, Oomrawttee, Yeotmahl. Ellichpoor and Bassim the important military station of Ellichpore is garrisoned by a Battery of Artillery, a Regiment of Infantry, and two Squadrons of Cavalry of the Hydrabad Contingent. There is also in Berar the hill-station of Chickuldah, on the Sautpoora Range, about 20 miles from Ellichpore frequented by civil and military officers employed in Berar, as well as by other visitors from various parts of Central India.

The district is traversed throughout its extreme breadth from west east to by the G. I. P. Railway. The length of railway within the limits of District is from 180 to 200 miles.

The chief towns are Oomrawttee, Karinjah Ellichpoor, Akolah, Kamgam Balapoor, and Dewalgam, the rivers are the Tapti and its tributary the Purna, also the Godavery river.

The results of the trial census of Berar, or the Hydrabad Assigned Districts, taken in November 1868 and tabulated by Mr. Lyall, have been published.

There are 5,694 towns and villages, 495,760 houses, and 2,231,565 people; the average number to each square mile is 128 and the average number to each house 4, but in Akola only 3. The percentage of children under thirteen years of age to adults is 55·4, larger even than it is in the North-West.—*Friend of India, April* 17, 1856. See Maharatta Governments ; Kol: Inscriptions, 379. India, pp. 323-328.

BER-BAIT. MALAY, means to make Pantuns. A pantun consists of 4 lines, the two first consist generally of a simile or natural image and the two last a moral drawn from the simile. The Malays take great delight in listening to two poetical champions pantuning at each other till one is obliged to give in from want of further matter—*Journ. In. Arch. No.* XI. *Vol.* V.

BERBER. The Berber of Africa, according to General Ferrier are shiah mahomedans as are a small number of the Pusht-koh Hazarah : He adds that the Berber tribe are to be met with in every part of the East—*Ed. Ferrier Journ. p.* 223.

BERBERAH, or Maratha is described as a sub-division of Abhira : it is the Barbarike of Arian's Periplus.

BERBEREH in Lat. 10°26' N. Long. 45° 1' E.—is situated on a low sandy shore. It is frequented by trading vessels from the Coast of Arabia. Berbereh, is the Mosallyon of the author of the Periplus, and is a sea port in Africa, directly south of Aden, in Lat. 10° 25′ 45″ N. and long. 46° 6′ E. It was the grand mart of the ancients on this coast and is still the great outlet for the commerce of north-eastern Africa. It has a large trade in sheep, cattle, ghee, coffee, various gums and resins and in ostrich feathers. An annual fair is held from October to April, the inhabitants, meanwhile living in tents to the number of 20,000 bartering their goods with merchants of Muscat, Bahrain, Bussora, Porebunder, Mandavie and Bombay, or carrying them over to Aden where a ready market exists for their produce.—*Horsburgh, Blackwood's Magazine.*

BEER-EL-SOMAL. See Semetic races, Somal.

BERBERIS, a genus of plants belonging to the Berberaceæ. The genus has about 60 species, of which 2 are Chinese, 5 in Japan and 9 in India. Of the later, 6 are Himalayan and 2 in the Neilgherries. Drs. Hooker and Thompson, (pp. 216,228) enumerate the following species ·

angulosa.
aristata.
asiatica.
concinna.
insignis.
lycium,
macrosepala.
nepalensis.
ulicina.
umbellata.
vulgaris.
wallichiana.
xanthoxylon.

There are three medicinal substances obtained from the species of this genus, an extract, known as Rusot, a tincture and the Berberine which is the active principle of these.

The species generally used for making the tincture and extract, are the Berberis Asiatica and the Berberis aristata ; the former is the common Berberry found on the outer hills of Kumaon, and is abundant near the Nihal bridge and Koorpa on the road to Nainee Tal; it is also found at Nainee Tal itself, and Almora. The native name is " Kilmora, and it is from the roots of these species that the bark is stripped for making the tincture. The B. aristata is also very common and is well suited for the purposes of making tincture. It is from this that much of the Rusot is prepared, its hill name is " Chotra." " Berberine" is the name given to the active principle of this bitterness ; but it is a troublesome (and an expensive) process to extract it pure ; it was procured by Buchner from the bark of the root of the Berberis vulgaris ; it is very bitter, yellow, not easily soluble in water, more readily in spirits of wine. In Europe it has not been much used and chiefly as a tonic in indigestion n doses of i to vi. grains, but has been given up to 10 grains. B. tinctoria of Leschenault, grows in the Neilgherries : B. Nepaulensis in Nepal ; B. Wallichiana and B. Angulosain, E. Himalaya.—*Ind. Ann. Med. Sci. for April* 1856, *p.* 379. *H. f. et. Th.*

BERBERIS tinctoria of Leschenault grows in the Neilgherries, B. Nepalensis in Nepal, B. Walliachnanun angulosa of E Himalaya *H. et. T.*

BERBERIS ARISTATA, *D. C.*

Var. *a.* NORMALIS.
Berberis tinctoria, *Lesch.*
„ chitra, *Ham.*
Berberis angustifolia, *Roxb.*

Var. *β.* FLORIBUNDA.
Berberis floribunda, *Wall.*
petiolaris, „
aristata, „
affinis, *Don.*
ceratophylla, „
coriaria, *Royle.*
umbellata, *Lindl.*

Var. *γ.* MICRANTHA, *Wall ; Hook. and Thom. Fl. Ind.*

Ambarbarus	ARAB.	Chitra, ...	HIND of ... HIM.
Aarghus	„	Kuraskai	PASHTU.
Nepaul barberry	ENG.	Zirishk	PERS.

The Wood.

Dar huld	PERS.	Dar chob	PERS.

The Extract.

Huziz-hindi	ARAB	Rusaut	HIND.
Rusot	HIND.		

This plant is widely distributed over the mountains of India, and assumes many various forms, which has caused botanists to give it a host of specific names. It is found in the Sutlej valley, between Rampur and Sunguam, at an elevation of 6,000 to 10,000 feet, also, on the Neilgherry and Pulney Hills at from 6 to 7,000 feet. It is generally known, from its yielding a dye, as Berberis tinctoria. The berries are much esteemed in the countries where they grow for their agreeable acid flavour. A yellow dye is obtained from the root.—*Cleghorn, Punjab Report. Ind. Ann. Med. Science.*

BERBERIS CONCINNA, HOOK & THOM. —angulosa, *Wall.* grows at Ramri and Pindari 9,000—12,500. A small shrub, only a foot and a half high, flowers solitary, red fruit, the leaves and stems very spiny. In the Ryott valley in Sikkim at Laghep, Iris was found by Dr. Hooker abundant, and this small bushy barberry with oval eatable berries.—*Hooker Him. Jour. Vol.* II. *p.* 197.

BERBERIS FLORIBUNDA. Var. of Berberis aristata.—*Hooker and Thomson Fl. Ind.*

BERBERIS INSIGNIS, a plant of the Sikkim Himalaya. It is a magnificent species, and forms a large bush with deep green leaves seven inches long and bunches of yellow flowers.—*Hooker, Him. Jour. Vol.* I, *page* 364.

BERBERIS KUNAWARENSIS, is found in Kunawar and employed for making Rusot.

BERBERIS LESCHENAULTII.—*Wall.*

Syn.

Mahonia Nepaulensis, *D. C.*
Berberis pinnata.—*Roxb.*

A plant with small bright yellow flowers, it is the Berberis acanthifolia of some, a fine pinnated plant with round black fruit, found on the Neilgherry mountains at an elevation of 8,000 feet.

BERBERIS LYCIUM.—*Royle.*

Huziz-Hindi............	AR.	Kashmal...	HIND.
Raisin Berberry. ...	ENG.	Surulu...	„
Ophthalmic „	„	Sambal.....	„
Chitra......	HIND.		

This is found on the Himalaya, at 3,000 to 9,000 feet, at Missuri, and Kaghan, but not west of Hazara. It is considered by Dr. Royle, to be the Lycium of Dioscorides, and its extract under the name of Rasot, is used in India in ophthalmia, its fruit is dried for currants, "Zirishk tursh," and its yellow juiced root and wood yield the extract called "ras," "rasaut" or "raswal" used as an external application in ophthalmia. It is likewise considered an extremely valuable febrifuge. It is prepared by digesting in water sliced pieces of the root, stem, and branches in an iron vessel, boiling for sometime, straining and then evaporating to a proper consistence. It is principally manufactured at Nepaul and the Dhoon, sold at 8 annas the seer. Wood too small to be of much use, except for firewood.—*Powell Ecom. Prod. Punjab. Cleghorn, Punjab Report. Hooker and Thomson.*

BERBERIS NEPALENSIS.—*Spr.*

Berberis miccia, *Ham.*
acanthifolia, *Wall.*
„ leschenaultii, *Wall.*
„ pinnata, *Roxb.*
Mahonia Nepalensis, *D. C.*
Ilex Japonica, *Thunb.*

This shrub is found on the Neilgherry, Pulney, and Travancore Hills, at an elevation of from 5 to 8,000 feet. It is also on the Himalaya, Bhotan, Garwhal, and Khassia mountains. The wood is small and of little use. See Dyes.

BERBIANG, KYAN. Syn. for Brother-making.

BERBICE COCOA. See Chocolate.

BERCHEMIA FLORIBUNDA.—*Wall.*

Syn.

Zizyphus floribundus.—*Wall.*

A plant of the Khassya hills, Nepal and Kumaon. The fruit of a Punjab species is eaten by goats and men.—*Voigt.*

BERCHEMIA ACULEATUS is common in the Holy Land and called Christ's thorn, from the tradition that the platted crown of thorns was made of its twigs.

BERDA. MAR. also Yehela. MAR. Terminalia belerica.

BERDURANEE, A great tribe who were removed from Eastern Afghanistan to Herat, by Nadir Shah; they are now nearly extinct. In Herat, of 3,000 families about one-fourth remain.—*Papers East India, Cabul and Afghanistan, p.* 133. See Afghan. Kandahar.

BEREE. Hind Irons for the leg-fetters.

BEREKEDE ARABS, a branch of the Asir tribe, said to lend their wives, like the Jakuri Hazara.—*Sale's Koran.* See Polyandry.

BERENICE. A port established by the Ptolemies on the Red Sea, from whence goods brought from the East were conveyed by caravans, to Coptis on the Nile, and thence to Alexandria. Thus Egypt became the principal point of communication with India and Europe. It was the opinion of Major Rennell that under the Ptolomies, the Egyptians extended their navigation to the extreme points of the Indian continent, and even sailed up the Ganges to Palibothra; and it is certain that Strabo, who wrote a little before the commencement of the Christian era, states that some, though few, of the traders of the Red Sea had reached the Ganges. The entire distance from Coptis to Berenice occupied twelve days. The ruins of Berenice were discovered by Captains Moresby and Careless at the bottom of the inlet known as the Sinus Immundus or Foul Bay. The distance from Coptis was 257 miles—*Ind. in* 15*th Cent.* See Saba.

BERFA. HIND. Populus balsamifera.

BERGAMOT; also Bergamotte a name of the lime tree, Citrus limetta;—also, the name of the small pear shaped fruit of the tree; also, the name of an essential oil obtained from the rind of the fruit.—*Hogg. p.* 140.

BERGAMOT OIL, is the Oil of the rind of the bergamot lime, the Citrus limetta. To prepare this, rasp the rind, express the raspings between flat porcelain slabs, allow the oil to settle, and then filter. The exquisite flavor of this oil is injured by distillation. It is used chiefly as a perfume, colour yellow, sp. gr. 0·888, freezes at 32°. Bergamot obtained by distillation from the root is inferior. More than 22,000 lbs. of this essence was imported into England in 1848.—*Beng. Phar. p.* 378. *Simmonds, page* 566.

BERGAMOTTE. ENG. Citrus bergamia, Risso.

BERGERA KONIGII *Linn; W. & A.; Roxb.*

Murraya Konigii.—*Spreng.*

Karia-phallee	BENG.
Barsanga	„
Karripak ka jhar	DUK.
Curry leaf tree	ENG.
Karripak ka jhar.	HIND.
Kudia nim	„
Barsanga	MALEAL.
Gandla	HIND. of Kangra
Gardala	
Kare-bepon.	MALEAL.
Kareyapela	„
Kristna nimbu.	SANS.
Kara-pinchee-gass.	SINGH
Watu-kara-pinchee-gass.	SINGH.
Kari-vepelli maram.	TAM.
Karivepa	TEL.
Kariampaku chettu.	„

The Leaf.

Caraway pillay	TAM.
Karay pak	DUK.
Karri-vaym-pakoo	TEL.
Kristna	SANS.

A small or tolerably sized tree, common throughout India and Ceylon. It is of easy culture, and is cultivated generally in gardens for its leaves, which retain their fragrance when dry, and are used to flavour curries, mullaga tawny, chatnies, &c. and are mixed in the curry pastes and powders prepared in India for transmission to England and other parts of the world; the mixture of these leaves not only imparts a peculiar flavour to these condiments, but adds a zest to them. It grows to a tree of tolerable dimensions, with pinnate leaves strongly scented; flowers in February and March; fruit of a deep purple colour, wood hard and close grained; medicinally, the leaves are considered stomachic and tonic, used raw i dysentery and when roasted are administered i cholera, in decoction to stop vomiting also i fomenting. The bark and root are employed as stimulants.—*Royle Ill. O'Shaughnessy, page* 232. *Voigt, Flora Andhrica, Useful Plants. Powell, Hand-book Econ. Prod. Punjab Thw. Enum. Pl. Zeyl. I. p.* 46. *Cleghorn. Panjab Report. Ainslies' Materia Indica, p.* 262. See Fruits.

BERGERA NITIDA, Thw.

Meegong-karapinchee-gass. SINGH.

A moderately sized tree not very uncommon in the warmer parts of the island of Ceylon.—*Thw. Enum. Pl. Zeyl. Vol. I. p.* 46.

BERGIA, a genus of plants with small flowers belonging to the Elatinaceæ, growing on the banks of rivers and rice fields in India. Sometimes placed in the genera Elatine and Lechea.

BERGMAN. See Kalkas.

BERHAMPOOR, a town in India in Long. 79° 43' E. and Lat. 20° 37' N. Another of same name in the E. of the Peninsula of India. See Kimedy, India.

BERHAMPOOTRA. See Inundations.

BERI. The name of a caste in Southern India following trade and claiming to belong to the original Vesia caste. They also call themselves Chetti or more correctly Sheti, from the sanscrit Shreshthi, a merchant. The Beri belong to the left hand caste and are distinct from the Komati or Chitti of the right hand division.—*Wilson's Glossary.*

BERI. HIND. Zizyphus flexuosa also, nummularia.

BERI, also Bhéri and Rana Bhéri. Leonotis nepetœfolia, R. Br.—*Phlomis nep. R.* iii. 8.

BERI-BERI, a singularly fatal disease, often attended with swelling in the feet, and paralysis, first written on by Dr. J. G. Malcolmson, Madras Medical Service, and published by Madras Government, 1835.—*Dr. Buist's Catalogue.*

BERIA, a robber tribe of Central India. See India, p. 328.

BERING. HIND. Nima quassioides.

BERLINER-BLAU. GER. Prussian blue.

BERMUDA CEDAR. See Cedar. Deodar.

BERNIER; a traveller and long a resident in India, in the reigns of Shah Jahan and Aurung Zeb. He states that by the time of his arrival at the Court of Shah Jehan, the various robbers whom he had met on the road, had left him little money. He was physician at the Court of Aurung Zeb.

BEROSUS, a Babylonian and a learned Chaldean, who lived in the time of Alexander. He was a priest of Belus.

BERRA, Pashtu, Zizyphus Jujuba.

BERRYA AMMONILLA.—*Ro*

Trincomallie wood.	ENG.
Somendilla	SINGH.
Halmililla	„
Hamaniel	„
Tircanamalay maram	TAM.
„ chettu.	TEL.
Sarala devadaru	„

This is a native of Ceylon, but introduced into the continent of India. The wood is annually imported from Trincomallee, by which appellation it is known in the Madras market. It is highly esteemed for its lightness and strength, is straight grained, slightly pliant, tough and little affected by the atmosphere, and is employed in the construction of the massoola boats of Madras. It is also used for the spokes of wheels, for helves, handles, planes, frames, poles and shafts of carriages, it is inferior to *Sal* for spokes, and to the babool for some other purposes, but it is comparatively light and easily worked. The Madras market is still dependent on importation from Ceylon. Dr. Helfer mentions this tree, as growing on King's Island opposite Mergui, and as a light, strong, and valuable wood. Flowers, small, white with gold coloured anthers. The tree yields the best and most useful wood in Ceylon for naval purposes. It grows straight, for twenty to forty feet high, and from twelve to thirty inches in diameter. It and satin wood, were reported by Mr. Eyde, in his time, to be the most plentiful and valuable found in Ceylon; and obtainable at a moderate rate to answer the demands of the navy in India. He said that this may be considered superior to any wood for capstan bars, cross and trussel-trees, cask-staves, battens for yards, fishes for masts, boat-building, &c. And he adds that, at Madras, it was highly valued for coach-work from the toughness and fineness of its grain.—It grows in the Northern and Southern side of Ceylon a cubic foot weighs 48 lbs., the wood lasts 10 to 80 years, and is there used for casks, tubs, carts, waggons and house building. It is the best wood for oil casks in the island.—*Drs. Mason, Wight, Cleghorn, Mr. Edye, Mr. Rohde, Mr. Mendis, Dr. Helfer, M. E. J. R. Mr. Thwaites. Roxb. Vol. II.* p. 639 ; *Voigt.* 128

BERRYA MOLLIS, *Wall.*

Petwoon. Burm.

Found on elevated ground of British Burmah Wood red, much prized for axles, the poles o carts and ploughs, also used for spear handles A cubic foot weighs lbs. 60 to 62. In a full grown tree, on good soil, the average length of the trunk to the first branch is 50 feet, and average girth measured at 6 feet from the ground is 7 feet. It sells at 12 annas per cubic foot.—*Dr. Brandis.*

BER-SAHIBAH. Borneon. Brother-making.

BERSU. Hind. Leptopus cordifolius.

BERTHA, in Rajputanah, a form of landholdingyria, the ryots or peasantry are distinguished into Kobhrya and Perja. The former are those settled in Bertha proprietory, or other rent-free lands, and are not liable to be called on by government for any services, except the repair of roads, and attendance in the army upon particular occasions. The Perja, who occupy lands actually belonging to the Prince, though perhaps in the immediate possession of Jagheerdars, are, on the contrary, obliged to perform various services, both at the call of the Jagheerdar and of the Prince.—*Tod.*

BERTHELOTIA LANCEOLATA, *D. C. var.* Indica.

Reshami, Reshambuti, Sarmei. Hind.

Leaves, rasanna (kura sanna.)

An annual plant which grows abundantly in many parts of the plains up to Peshawar, in places forming thickets up to 4 and 5 feet high. They are mentioned in Dr. Royle's Illustr. of Himal. Bot. p. 19, as having been given to him as those of *Salvadora indica*, Royle, which they a good deal resemble, and are produced in the same arid tract of country extending from the banks of the Jumna towards Central India. It also grows in the Punjab. Dr. Royle pronounces the leaves to be an excellent substitute for Senna, and to be remarkable for growing with their edges vertical, and for having both sides covered with stomata. But Dr. Honigberger says that they are seldom used by the hakims. The plant occurs in many parts of the plains of the Punjab, where it forms thickets.—*Stewart, Honigberger*, p. 243. *Royle*, p. 456.—*Ill. Him. Bot. p.* 19.

BERU. Duk. Pens; writing reeds.

BERWAJA. Hind. Calligonum polygonoides.

BERYL.

Berullos	Gr.	Zamarrud	Pers. Hind.
Tarshish	Heb.		

The beryl is mentioned in Exodus 28, 10. It is found in the Siberian Altai range, but many beryls come from Khotan, Ilchi and the Chinese provinces, and many are imported from Ceylon. There is a beryl mine at the village of Paddioor or Patialey, about 40 miles E. N. E. of the town of Coimbatore found imbedded in a vein of magnesian limestone, traversed by hornblende rock. Beryls are also found in the sands of the Irawady. The beryl and emerald are of a similar nature, their component parts viz. silica, alumina, and glucina, coloured by the oxide of chrome, being the same. The only important difference is their colours, the emerald being of its own peculiar emerald green, which it derives from a small proportion of chrome. All the varieties of other colours, tinged more or less yellow, or blue or altogether colourless d beryls. But beryl is the harder being 7-the 8. It is also more compact and retainshe surface polish more perfectly than almost at other material. Not so the emerald. Them- mans cut it in facets and in the form of a st angular pyramid.

The constituents of the beryl and emerald are

	Beryl.		Emerald.
lucina............	15·50		12·50
Silica..	66·45		68·50
Alumina	16·75		15·75
Oxide of Chrome			0·30
of Iron			1·00
Lime......			0·25
Sp. Gr . .	2·76	to	2·73.
Hardness.	7·5	to	8·

The native form is a hexaedral prism terminated in a six-sided pyramid.—*King.*

BES, Hind, of Hazara, Salix, *Sp.* See Bais.

BESABIRAJA. See Surya-vansa.

BASADA. See Veddha.

BESALI, a river of Bhopal. See Sat-dhara. Sonari.

BESAN, Hind., the flour of a pulse such as gram, Cicer arietinum. It is also compounded into a cosmetic powder, with aromatics and the flour of several pulses, and is also used made of pea meal and orange peel as a detergent for cleaning the hair.—*Powell. Simmonds.* See Abir.

BESEN. Ger. Brooms.

BESH. Pers. More; hence Beshi, increase.

BESH KIMAT, of high price.

BESHBOLAH, in Long. 70° 50' E. and Lat. 33° 53' N.

BESISI. A race in the Malay Peninsula.

BESISIK, a Malay tribe in Kedah. See Kedah or Quedah. These seem to be identical.

BE-SITUN, a little village at the foot of rocky mountains, which are covered with bas-reliefs. The inscriptions are in the Bactro-medo, or Persian cuneiform writing character, of the Achæmenidæ, which was first deciphered by Burnouf and Lassen, afterwards by Rawlinson. The most important is the list of the Iranian nations subject to Darius in the Naksh-i-Rustam, which the Persians attribute to the chisel of their famous sculptor Ferhad. A description of them is to be found in Sir John Malcolm's Persia. Enormous marble capitals of columns are to be seen at Besitoon. There are two tablets. The one containing a mutilated Greek inscription, declaring it to be the work of Gotarzes; the other a Persipolitan sculpture, adorned with nearly 1,000 lines of cuneiform writing, exhibiting the religious vows of Darius Hystaspes after his return from the truction of Babylon, on the revolt of its pati or Governor, Nebukadnazzar, the on of Nebunet. Both C'tesias and Isodore tion a statue and pillar of Semiramis at aptane, but the sculptures of Semiramis and the inscription in Syriac characters have wholly disappeared. Baghistan is traditionally described as the pleasure grounds of Semiramis.

According to Sir H. Rawlinson, however, —"D'Anville first suggested the identity of Besitoon with the Baghistane of the Greeks, and there are good grounds from the ancient notices of this place for supposing him to be correct. Etymologically considered the evidence is even more striking. To solve all difficulties it may perhaps, he adds, be admitted that the sculpture did really exist in the lower part of the rock, scarped by the Assyrian queen; and that Khosroo Parviz, when he was preparing to make the scarped surface the back wall of his palace, and for that purpose began to excavate deeper in the mountain, destroyed the sculptures, and removed all further trace of them. With regard to the pillar of Semiramis, it is very curious than an Oriental writer of the 15th Century should describe the rock of Besitoon from his own observation, as though it were sculptured in the form of a minareh, or minaret. Certainly nothing of the kind now remains.—*Ferrier, Journ. Bunsen, Vol. III. p.* 457. See Rawlinson.

BESSI. SUMATRAN; Fruit of Averrhoa bilimbi.

BESSENT, properly, Basant'h HIND. The spring. See Basant'h, Kama, Vasant'ha.

BESSUS, the murderer of Darius. He was put to death in a cruel manner: his body was fastened to the ground, and the boughs of two trees were bent, and after being fastened to one of his limbs, allowed to spring back to their natural position. They tore him asunder. This fact is mentioned by Plutarch. This mode of executing criminals, is still occasionally used in Persia.—*Malcolm's History of Persia, Vo' I. p.* 73.

BEST, Captain, a scientific officer Madras Engineers. *Ob.* 1851. He wrote an account of the Guntoor famine of 1833 in the Mad. Lit. Trans. 1844. On the embankments of the Godavery in a Blue Book of 1851. On rain guages, and the registration of river freshes in the Mad. Lit. Trans. 1844, No. XXX. 178. A biographical notice of him appeared in the Madras and Bombay papers, October 1851.—*Dr. Buist's Catalogue.*

BESTA. KAR. TEL. A caste of fishermen in Madras and Mysore to which the palankeen bearers usually belong. They are also called Bestaru.—*Wilson's Glossary.*

BET or **BETA**. BENG. and HIND. Ratan cane. Calamus rotang; any cane.

BET or **BENT**, Panjab: land along a river, subject to periodical inundation.

BET, a name of the Bhot. See Bhot. India, *p.* 317. Tibet.

BETA, the beet-plants, a genus of which several species are used as vegetables. The leaves of B. cicla or white beet, are used as salads; and their midrib as a substitute for asparagus. Beta maritima or Sea Beet, requires a sandy soil; used as spinach, or a pot herb. The *red beet* and *mangel wurzil* affords abundance of amylaceous and saccharine matter. Beta Bengalinensis, the Bengal Beet, is the Paluk Sag or Palung Shak. BENG. and is cultivated in Bengal and the Northern Circars and its leaves are used by natives in their curries. when boiled it resembles spinach in flavour. The leaves shoot out again after being cut down.—*Roxb. II.* 59, *Voigt.* 321. *O'Shaughnessy, p.* 524.

BETA VULGARIS.—*Linn.*

Common beet	ENG.	Sælg	EGYPT.
Shul	ARAB.	Paluk	PERS.
Sælk	EGYPT.	Chakunda	,,

There are three varieties, viridis, green, rubra red rooted, and alba white. The plant is largely cultivated in India as a vegetable.

BETA VULGARIS. Moq. Var. Orientalis.

B. Bengalisis, *Roxb.*

Country spinach.—*Stewart.*

BETADA SWAMAMKI VRIKSHA. CAN. Mimosa xylocarpa.

BETE, Ternatean. Caladium esculentum.

BETAH, two towns in India, one in Long. 81° 55′ E. and Lat. 25° 18′ N. The other in Long. 87° 28′ E. and Lat. 22° 52′ N.

BETCH, a branch of the Kuki in Cachar. See Kuki.

BETEEKH. Arab. Cucumis melo.

BETEL BOX. These boxes are in use in all parts of the South East of Asia. They are of gold, silver, or other metal and in Peninsular India, about one-fifth of the people have one always in their pockets. In Burmah the frame work of these boxes is formed of thin strips of bamboo plaited into the shape of a box; the basket-work foundation is then coated with 'Theetsee,' painted and varnished. Every Burman has one or more of these shaped boxes to hold his betel, cigars, money, &c.; and their women, in addition to the above purposes, use them as jewel and dressing cases. Specimens were exhibited from Pagan, in Burmah, celebrated for their manufacture. Inferior sorts are made all over Pegu and in the Shan states. The higher classes of Burmese use boxes of silver, whilst the nobles of the court of Ava use gold.

BETELA, Maleal. Betel Leaf.

BETEL-NUT, Areca Nut, Penang Nut.

Fooful	Arab. Pers.	Kramuka, Guvaka	Sans.
Sooparee	Guz. Hind.	Puwak	Sing.
Jambi	Jav.	Paaku	Tam.
Penang	Mal.	Vukka	Tel.
Araca	Maleal.	Wakka	„
Araca	Port.		

The Betel or Areca or Penang nut palm is grown in many parts of the East Indies and Eastern Archipelago, from the Red Sea to the Pacific Ocean, and the people to a very great extent use the kernel of its fruit as a masticatory. The areca palm is of elegant growth and rises with a very erect and slender trunk to a height of forty or even sixty feet, the summit terminating in a tuft of dark green foliage; the trunk is seldom more than eighteen inches to two feet in circumference. The tree produces fruit from the age of five to its twenty-fifth year: it begins to blossom in March and April and the nuts are fit to gather in the months of July and August and are fully ripe in September and October. Fourteen pounds is the average annual produce of a single tree. The fruit ripens only once during the year, but the nuts vary greatly in size, though their quality depends solely on the amount of astringent matter they contain, a point which is judged of by cutting them. If the white or medullary portion, which intersects the white or astringent part, be small, has assumed a bluish tinge, and the astringent part is very red, the nut is considered of good quality; but when the medullary portion is in large quantity, the nut is considered more mature, and, not possessing so much astringency, is esteemed less valuable.

The ordinary nuts have a thin brown rind, and in size are intermediate between walnuts and hazel nuts. Their general substance is of a feint oily grey colour, thickly marked with curly streaks of dark brown or black. The betel-nuts, although softer, resemble ivory, and in the arts are made into necklaces, rulers, tops of walking sticks, and other small objects. The best betel nut of the Madras Presidency grows in the Nuggur district of Mysore, and in Travancore. It occurs in the market sliced and in whole nuts, also boiled and raw, or split and dried hastily over a fire, or dried slowly in that manner. That used by families of rank in Travancore, is collected while the fruit is tender, the husk or outer pod is removed; the kernel, a round fleshy mass, is boiled in water. In the first boiling of the nut, when properly done, the water becomes red, thick, and of a consistence like starch, which is afterwards evaporated into a substance like catechu and is indeed known by the same name. The boiled nuts being then removed are sliced and dried the catechu like substance is rubbed over them, and, on being dried in the sun, they assume a deep black colour. Whole, unsliced nuts are also similarly treated. Nuts are fit for the slicing process in the months of July and August. Ripe nuts preserved in the pod are also in use. Nuts for exportation to Trichinopoly, Madura and Coimbatore, are prepared in thin slices, and colored or left in their natural hue. For Tinnevelly and other districts, the nuts are simply dried. The quantity of nuts produced on the coast of Sumatra, is stated at 80,000 piculs. The quantity imported annually by the Chinese, amounts to 45,000 or 48,000 piculs, exclusive of that brought there from Cochin China. It is carried by the people of the East in pouches and presented to guests in the houses of the rich, on silver trays, wrapped in gold and silver leaf, and in this form becomes an essential part in all ceremonial visiting. Indeed among some of the inhabitants of the Eastern Archipelago, to refuse to accept betel nut when offered, would give irreconcilable offence. It is believed to sweeten the breath, strengthen the stomach, and preserve the teeth: and when chewed with betel leaf, the piper betel, (*Linn.*) gives the saliva a red colour which it imparts to the lips and gums. But only some nations chew it with the betel-leaf, others add to it lime, tobacco, gambir, (an extract from the foliage of Uncaria gambir, (*Roxb.*) and the leaves of various species of pepper. White areca nuts form an article of trade with Burmah from Penang and Acheen. Ordinarily in Malabar they are dried, or cut into two or three slices; nuts are exported in their pods to Bombay. 2,000 candies on the average are annually exported from Travancore. In China they are met with both cut and whole and the imports are mostly the growth of Java, Singapore, Sumatra and Penang. The number of the trees of the Betel palm, in Travancore alone, is calculated at 1,02,32,873. It may give an idea of the great extent to which this masticatory is used in Southern Asia to notice the quantity and value of their Imports and Exports into the Madras Presidency alone, for the four years 1852-53 to 1855-56 inclusive.

IMPORTS.	Quantity.	Value.
Betel nut boiled.	Cwt. 2,09,827	Rs. 11,63,361
Do. raw ...	Cwt. 76,688 No. 1,05,13,23,180	„ 11,23,709
		Rs. 22,87,070

EXPORTS.	Quantity.	Value.
Betel nut boiled.	Cwt. 1,49,874	Rs. 7,80,646
Do. raw ..	Cwt. 75,544 No. 2,44,39,600	„ 4,39,910
		Rs. 18,20,556

The imported nuts were chiefly brought from the Straits of Malacca, Ceylon, Indian French Ports and Travancore ; and the Exports were made to Bombay, the Concan, Cutch, Sind, Guzerat, Persian Gulf and Bengal. See Areca catechu. Palm woods. Charcoal.

BETEL NUT-CRACKER, Soroto. HIND. In very general use among the natives, who are consumers of betel-nut ; used in cracking the nut. This instrument appears never to have been imitated by British manufacturers. It is of steel and ornamental : 4*s.* 2*d.* each.

BETEL LEAF.

Tambul...	AR.	Barg-i-tambul	PERS.
Pan......... ..	GUZ. HIND.	Tambula	SANS.
Suro......	JAV.	Vettilei...	TAM.
Sirih, Sireh......	MALAY.	Tamalapaku	TEL.
Betela	MALEAL.		

The Piper Betel, belongs to the pepper family of plants and furnishes the celebrated leaf of the Southern Asiatics, in which they enclose a few slices of the areca nut and a little shell lime. This they chew to sweeten the breath and keep off the pangs of hunger. It is, also, slightly narcotic. Rumphius describes six species of this vine, besides several wild and uncultivated varieties. It is very easily reared in the Indian Archipelago, but in the Peninsula of India, it requires manuring, frequent watering and great care, and in the northern parts of Hindustan it becomes an exotic very difficult to rear. The vine affords leaves fit for use in the second year, and continues to yield for more than thirty, the quantity diminishing as the plants grow older. The leaf mixed with betel nut, and quick-lime, forms a hot and acrid masticatory, is in common use in India and the Malayan Archipelago. In the Tenasserim Provinces the Karens plant the vines on their uplands, where there are tall forest trees. The branches of the trunks are lopped off, leaving only the topmost boughs, and the vines readily climb up and weave their dark, glossy leaves all over the summits, making a betel-vine farm a most beautiful object. Karen boys and maidens engage in this leaf harvest with great zest, and it is not uncommon for young men in seeking companions, to inquire who are the most agile climbers of poo-lah, or betel-leaf trees. The karen forests produce a wild species of piper, the leaf of which is used as a substitute for the common betel-leaf. The leaves are taken the utmost care of by the dealers, and are moved every day lest one leaf should touch another decayed one ; the decayed parts are carefully clipped away with scissors.—*Mason.*

BETEL LEAF PEPPER, ENG. Chavica betel, Mig. Piper betel.

BETHAL also PETHAL. HIND., of the Chenab, &c. Juniperus squamosa, the creeping Juniper.

BETHANY. A small village, now called Al Azirizah, about two miles from Jerusalem, on the eastern side of the Mount of Olives. On the summit of the Mount of Olives, within the area of a mosque, is a small circular chapel covering the stone which bears the foot-print shown as that of our Lord. From here the Ascension took place. Near the site of Bethpage is a wild and magnificent view of the mountains beyond the Dead Sea, where rises the peak from which Moses surveyed the Promised Land. The barren country around Jericho, with the desolate region of caves and precipitous rocks that compose the whole space between this and the Dead Sea, the pale waters of wich lie in the most perfect stillness below it, well deserve the name of wilderness.—*Skinner's Overland Journey, Vol.* I. p. 215.

BETHARA. A town of Chaldea.

BETHEL of Gen. xxviii, 2, 19, a compound word meaning God's house, El of the Greeks (Yl. in Hebrew and Phœnician) *i. e.* God, the strong, whence comes Elohim, literally the Gods and the Greco-Phœnician Bætylia or sacred stones supposed to have fallen down from heaven (Diopeteis) perhaps Aerolites which were honoured and held sacred on account of divine power supposed to be inherent in them : whether it was a common stone or an aerolite that Jacob had for a pillow cannot be known as he rose from his dream exclaiming (v. 17) How holy is this place, this is none other but the house of God, (Bait El)—and Jacob took the stone that he had made his pillow and set it up for a pillar and poured oil upon the top of it and called the name of the place Beth-el.—*Bunsen, Vol.*.IV. *p.* 242-3. See Betyli.

BETHESDA. A large tank on the east of Jerusalem, 360 feet long, 120 broad and 75 deep.

BETHLEHEM, now with 2,000 inhabitants mostly christians, lies about six miles south of Jerusalem.

BET-I-MUJNUN, Pers. Also Khilaf Balki, also Lejla-o-Mujnun. Hind. Salix Babylonica.

BET KA PHALL, Duk. Fruit of Calamus viminalis.

BETOOA, Beng.' also BETOO-SHAK. Beng. Chenopodium viride. White goosefoot.

BETRIAH, a river near Nabaroon in Kishnagurh.

BETTONGIA GRAYII of Gould, one of the Macropopidæ, is found in N. and S. Australia.

BETTA. Ancestor of rajah, of Mysore.

BETA-GANNAPPA, or DADUGA, Tel. Nauclea cordifolia, R.

BETTAMU or Bettapu Chettu. Calamus rotang, L. R. iii. 777.

BETTIAH. A town in India in Long. 84° 35 E. and Lat. 26°. 46' N. There are notices by Mr. Hodgson of three tall pillars or columns, in north Behar, two of the pillars surmounted by a lion, and each having an inscription upon the shaft, which was unintelligible at the time Mr. Hodgson wrote, 24th April, 1834. The Bettiah inscription is precisely the same as that of Delhi and Allahabad, No. I. (*Vol.* III. *p.* 482. *Vol.* IV. *p.* 125.) These are at Mathiah near Bettiah. Bahra and Rediah. The language of Inscription.—Pali. and character Old Pali. Date.—315, B. C. The Budhist king mentioned is Piadasi, or Asoka.

BETTUTNAUL, in Long. 75°. 22' E. and Lat. 14°. 52' N.

BETULA. The Birch, one of the Betulaceæ, about eight species of which occur in India; of those known in Nepaul are nitida, alvoides, utilis and acuminata. Some species of this genus grow in the Himalaya. B. acuminata grows on many of the mountains of Nepaul in the great valley of that country, following the course of its rivers and B. cylindrostachya and B. nitida are plants of Kamaon. The white birch yields a bark which the Kamtschadales chop up with the eggs of the sturgeon, and use as their ordinary food. The sap is acid, and an agreeable beverage, and may be kept for years without undergoing fermentation.

BETULA species? Atees Hindi? its bark in Northern India used to dye chintz red?

BETULA JACQUEMONTII, Spach.

Syn.

Betula bhojputra.—*Wall.*

Indian Paper Birch. Eng.
Paper Birch............ „
Bhurj..................Hind.
Burjri..
Burzal................ „
Bhuj....................Hind.
Phurz.................. „
Bhurjamu.... Sans. Tel.
Barjapatri chettu...Tel.

This plant grows in Kamaon, Gharwal, and abundantly in the Punjaub Himalaya at from 7,000 to 11,500 feet, and the two plants appear to Dr. Stewart to be the same or very closely allied species. It also occurs on the border of western Tibet. It grows to a higher elevation than most other trees, and may generally be seen occupying a tract above Coniferous forests. The tree at times reaches 6 or 10 feet in girth and 35 feet high. The wood is almost valueless, and is only used for ploughs, small bridges, &c., at altitudes and in tracts where other trees are scarce. Mr. Watson, however, told Dr. Stewart that it is good for turning, and in Kanawar poles of it are used for carrying and swinging a heavy kind of ark in religious processions, which implies some strength and elasticity. In Ladak the striking part of the stick for polo, "hockey on horseback," is made from it. In Kangra, "being sacred," the bark is used for funeral piles, and at the shrines of Umrnath, in Kashmir, the pilgrims are said to strip and indue themselves with this. In Kashmir and Kumaon it is found very durable put under the earthen roofs, and it is largely used for covering umbrellas and packing apples, pomegranates tobacco, and drugs. It is also employed for writing paper, for which it is said to do excellently, and is exported to the plains for warpping round hooka tubes. It sells for three rupees a kharwar, (ass-load) in Kashmir, according to Lowther. The price in Chumba was stated to be ten to sixteen seers for a rupee. Longden mentions that the old bridge at Koksar, (now replaced by a more civilized one,) was made of birchen twigs.—*Ell. Fl. Andh. Royle, p.* 383. *Dr. J. L. Stewart.*

BETULA BHOJPUTRA.—*Wall, Royle.*

Syn B Jacquemontii, *Spach.*

Indian Paper Birch. Eng.
Birch.................. „
Burj Hind. of Pangra.
Bhorjamu ... Sans. Tel.
Bhurj..................Hind.
Bhuj.............. „
Bhurz.......... „
Burjri................Hind.
Bursal............ „
Bharjapatri chettu. Tel.
Bhajpatra of Busahir.
„ Kanawar.
„ „
Tagpa of Ladak.

The Indian paper birch, was found by Dr. Wallich on the alps of Gharwal and Kumaon, in the Sutlej valley between Rampur and Sungnam at an elevation of 10,000 to 13,000 feet, and it is a plant of Kaghan, Pangi, Busahir and Lahaul. It is nearly allied to Betula papyracea of North America. So late as the age of the hindu dramas, about the beginning of the christian era, Professor Wilson mentions that the hindoos still used the inner bark of this birch as paper and the same is mentioned by Dr. Cleghorn in his recent Punjaub Report. The bark peels off in large sheets, and is used for umbrellas, for writing upon, and for the flexible tubes of hookhas. Every consignment of the ornamental papier mache ware of Kashmir reaches the Punjaub packed in wrappers of birch-bark. The houses in Kashmir are often roofed with it. The bark is used for chatta or rude umbrellas, and for covering tubes of hookas, or native smoking pipes and being of a sacred character it is burnt on the funeral pile. Hindoo pilgrims visiting the shrine of Amrnath in Kashmir divest themselves of their ordinary clothes before entering the shrine, covering their bodies with the bhojpatra. It is now brought to the plains for lining the tubes of hookahs and the leaves or bark are used to cover the baskets of Ganges water sold by itinerant pilgrims. Wood good: used for cups, common turnery, and for fuel by travellers in the higher ranges.—*J. L. Stewart, M. D. Royle Ill. p.* 383. *Eng. Cyc.* 452. *Elliot's Fl. Andh. Powell, Econ. Prod. Punj. Cleghorn Punj. Rep.* See Atees ; Birch ; Paper ; Parrotia.

BETULA CYLINDROSTACHYA, Cylindrical spiked Birch, is found in Kumaon.—*Eng. Cyc. p.* 452.

BETULA NITIDA. The shining birch, grows in Kumaon.

BETURUNGU, Beng. Peristrophe tinctoria.

BE-UL-SURAH. The Arab name of Bassorah.

BETWA. A river in Jellalpore, in Hameerpore. It rises on the east of a table land. See Sanchi ; Sonari.

BEUM. Tel. Rice : husked grain of Oryza sativa.—*Linn.*

BEVOIBETTA PEAK, in Lat. 11° 21' Lat. 76° 43' in the Nilgiris, is S. of the Dodabetta peak. The top of the peak is 8,488 feet above the sea.—*Baikie.*

BEURA, in Long. 84° 11' E. and Lat. 22° 31 N.

BEUERRE. Fr. Butter.

BEURA. Can. Margosa bark.

BEUTH, called also Beruth, also Behuth, and in Byblius called Baltis, means void of genesis, *i. e.* identical with space, the mother's womb, the primeval mother. The fundamental idea is that of the mother of life or source of life, which is the meaning of Havvah (Eve) of Genesis.

BEWA. See Inscriptions, p. 389.

BEYAH, according to Rennell anciently called Beypast'ha, is the Hyphasis or Huphasis of Alexander—the modern Ravi.—*Rennell, Memoir, p.* 102.

BEYREE, in L. 70° 31' E. and Lat. 22° 7' N.

BEYREE BUNDER, in L. 70° 20' E. and Lat. 22° 30' N.

BEYPORE RIVER, on the Malabar Coast in Lat. 11° 10' N., 6 miles south of Calicut has 8 or 10 feet on the bar at high tides.

BEZ also **BAZ.** Pers. Mace.

BEYLA, towns in India : one in L. 70° 52' E. and Lat. 22° 43' N. another Beylah in Long. 71° 0' E. and Lat. 23° 41' N. a third in Long. 74° 24' E. and Lat. 19° 10' N.

BEYT in L. 22° 28½' N. L. 69° 9' E. also written Beit, Bete and Bate, an island in the gulf of Cambay. It was taken possession of by the pirates of Jugut, after they had been defeated by Kutub Shah. In A. D. 1482, Beyt fell, after having fought twenty naval engagements. Beyt fort was taken and destroyed on the 15th October 1859. The rise of the tide is 14 feet. See Waghir, India, p. 335.

BEZOAR. Eng.

Faduj...	Ar.
Hejr-ul-bucher	,,
Gbyroon..............	Duk.
Zeher-morah...	,,
Bezoar..................	Eng.
Serpent Stone	,,
Cow Bezoar...........	,,
Bezoard	Fr.
Bezoarsteen...	Ger.
Guru-chandan... ...	Guz.
Zahar mohra	Hind
Batu Nakit	Jap.
Goliga, Mantika, Matika, also Goliga Muniet	Malay.
Gawzorah also Pazahr-i-Kani...	Pers.
Pazaher-Kani...	,,
Bazr	Port.
Gorochana	Sans.
Visagul......	Singh.
Gorochanam, Vishakallu, also Pamu Kallu also telukallu	Tam.
Geruda patsa rai. ...	Tel.
Ghyrun......	Duk.
Zahar-morah...... ...	,,

There are several kinds of bezoar, most of them concretions found in the gall-bladders or intestines of various animals. Some are of a deepish olive green colour. They also said to be found in the stomach of goats, dogs, cows, or other animals ; the hog bezoar, the bovine bezoar, and the camel bezoar are also mentioned and this last the hindoos turn into a yellow paint ; but the harder substances the hindoo jewellers polish and thread into jewels. The word bezoar is from the Persian pa-zahr, from pao, to purify and zahr poison. Ouseley says that the pazen bezoar, from the mountain goat, the boz-i-kohi is the most prized in Persia. Indeed the name was at first applied to a concretion found in the stomach of a goat in Persia, but is now used to designate similar substances found in various other animals, as the cow, horse, boar, camel, &c. That produced by the goat was formerly much prized as medicine, sometimes selling for ten times its weight in gold; but since its constituent parts have been ascertained, it has ceased to be sought after. Different animals produce bezoar, the composition of which differs often in the same kind of animal, as well as in dissimilar species. The oriental bezoar is formed of bile and resin; other kinds are found to be made of hair, others of wood, and some principally of magnesia and phosphate of lime. The true bezoar from Persia is counterfeited so well by pipe-clay and ox-gall that even those have been deceived who procure the genuine from the animal. The genuine throws off only a small scale when a hot needle is thrust into it, and put into hot water it remains unchanged: when rubbed on chalk, the trace should be yellow, but green on quick lime. That found in the camel is highly esteemed as a yellow pigment by the hindus. The cow bezoar is valued in the Chinese market at from $20 to $25 a catty, and is used by the Chinese solely as a medicine. The little which is brought there is from India. In the interior of the Rajang district, in Borneo, are two species of monkey which produce the Batu Nakit, or Bezoar stone. One is large and black with a long tail called *Nakit*. One is large and red, but has no tail, and is called *basi*. In one out of ten or twenty of these two monkeys, are found the Bezoar; if not extracted quickly after the death of the animal, it is said to be of inferior size and quality. Crawfurd also mentions that *the Bezoar* stones brought from Borneo are said to be obtained from the stomach and intestines of monkeys. Dr. Honigberger, mentions that a Bezoar of the Eastern doctors (Padzahr seeah, Pers: kanee zahr mohra, Hind.) is dark green serpentine, and a specimen in the Madras Museum brought from Delhi by Mr. Charles Gubbins, as Zahr mohra, is undoubtedly this mineral. While this part was passing through the press, a mahomedan called to offer for sale two large rings of "Zehr mora," both formed of a serpentine marble. Faulkner's description seems also that of a serpentine. It is brought to Bombay from Guzerat and Malabar in small quantities, and is chiefly re-exported to China. Ainslie mentions that it is brought to India from Ceylon, Bussorah and the sea ports in the gulf of Persia, also that as a medicine, Bezoar is supposed, by the native practitioners, to possess sovereign virtues as an external application in cases of bites of snakes, stings of scorpions, hydrophobia, &c. Bezoars do not deserve the least confidence. That known as Oriental Bezoar, was formerly used in medicine in Europe, and formerly in India a stone weighing an ounce was sold for £5 and one of 4½ oz. for £100. The Fadaniya Bezoar of the Punjaub are intestinal calculi, consisting of phosphate of lime, &c. They occur there in the intestines of various animals.—*Dr. Honigberger, p.* 244. *O'Shaughnessy, page* 691. *Crawfurd, page* 52. *Powell, Hand Book, Econ. Prod. Punjaub, p.* 153. *Morrison.*

BEZOMMAR is the seat of the Patriarch, or spiritual head of all the Armenian catholics in the East. He is assisted by several bishops, and about twenty or thirty monks.—*Robinson's Travels, Vol. II. p.* 45.

BGHAI. A Karen tribe. One of the great sections of the Karen race, the other two being the Sgau and the Pwo. The Bghai tribes are the Bghai-ka-ten; Bghai-ko-hta; Bghai-muhtai; Lavmay, and Manu manam. See Karen.

BHABAGUPTA. Name of a king in the inscription at Baolee. See Inscriptions, p. 391.

BHABAR, HIND. Urtica heterophylla also Andropogon involutum.

BHABOOT, HIND. Ashes of dried cow-dung which hindus smear over their foreheads and bodies. See Atteet.

BHABRA, near Bairath on the road between Jeypore and Delhi whence a stone now in the Calcutta Museum was got. It contains an edict of king Pyadasi, and specifically refers to the precepts and doctrines of "Bhagavat Boodha."—*Prinsep's Tibet, Tartary and Mongolia, p.* 155. See Inscriptions, p. 372.

BHABRI, HIND. Amarantus anardana.

BHABRIA. A section of the Koli race, dwelling from Baroda north to Mahee Kanta.—*Wils.*

BHABUR. HIND. Eriophorum cannabinum.—*Royle.* See Cotton Grass; Cyperaceæ.

BHABUR. A dense forest tract of jungle on sloping ground 10 or 12 miles broad under the Sewalic hills.

BHADARIA. A tribe of mendicants of brahminical descent, who profess astrology.—*Wilson's Glossary.*

BHADAUREA. A branch of Chouhon rajputs in Bhadawar.—*Wilson's Glossary.*

BHADER, a river of Kattywar, in L. 22° 10' N., L. 71° 18' S. E. runs S. W. into the Indian Ocean, near Poorbunder, in L. 21° 38' N., L. 69° 46' E., Length 135 miles.

BHADERPOOR, in L. 78° 3' E. and L. 24° 20' N.

BHADON, the fifth month of the hindu luni-solar year, August and September. On the 3rd of this month, amongst rajputs there is a grand procession to the Chougan; the 8th, or Ashtami, is the birth of Crishna. Amongst rajputs, there are several holidays in this month, when the periodical rains are in full descent; but that on the last but one (*súdi* 14, or 29th) is the most remarkable. *Tod's Rajasthan, Vol. I, p.* 581. See Nat'-hdwar.

BHADORAH, in L. 77° 22'. E. and L. 24° 56' N.

BHADRA, a hindu month. See Krishna; Vishnu; Yama.

BHADRA-KALI, Sans. from bhadra, goodness, and Kali, a goddess. See Bhadra.

BHADRA MUSTE, Sans., also bhadra tunga gaddi, Tel. Cyperus hexastachya.

BHADRAPADA. A hindu month, when the sun is in the sign Sinha, corresponding to the Tamil month of Auvani. See Varsha.

BHADRASENA, king of Magadha, one of the Sisunaga dynasty, B. C. 400 —*Bunsen, Vol. III, pp.* 538,9 and 42. See Bhattiya.

BHADRI-NATH. The town and temple of Bhadri-Nath are situate on the west bank of the Alacknunda, in the centre of a valley of about four miles long, and one mile in its greatest breadth. The east bank rises considerably higher than the west bank, and is on a level with the top of the temple. About the middle of the bank is a large cistern about twenty or thirty feet square, covered in with a sloping roof of deal planks supported on wooden posts. This is called Tapta-kund, and is a warm bath, supplied by a spring of hot water issuing from the mountain by a subterraneous passage, and conducted to the cistern through a small spout representing a dragon's or a griffin's head. A little to the left of it is Surya-cund, another hot spring, issuing in a very small stream through a fissure in the bank. There is no basin or reservoir to receive the water. The principal idol, Bhadri-nath, is placed opposite the door, at the farther extremity: above its head is a small looking glass, which reflects the objects from the outside: in front of it are two or three lamps which furnish all the light the apartment receives excepting from the door diffusing such feeble glimmering rays, that nothing was clearly distinguished. It is dressed in a suit of gold and silver brocade. Below it was a table, or board, covered with the same kind of cloth.—*Fraser's Himalaya Mountains, pp.* 373-375. See Badri-nath.

BHAEE also **KARAKA**, Duk. Sterculia colorata.

BHAEE-GOOROO VALEE, Sans. From bhaee, a brother, and gooroo, a teacher.

BHAEOUL. Seemingly the Grewia oppositifolia. Lieut. Pogson says it grows in the ravines of Simla. The ropes made from it are strong and durable; during the depth of winter, the villagers feed their cattle on the leaves, which sell from three to five annas per load of 25 to 45 seers. The tree seems to thrive as well in the hot valleys, as at higher and colder situations. It supplies a crop of twigs annually.

BHAG, in Long. 68° 24′ E. and Lat. 28° 18′ N.

BHAGA, a river in Ladak. See Linga; Ladak, Lahoul.

BHAGADA KOT, in Long. 73° 59′ E. and Lat. 32° 9′ N.

BHAGADATTA. The king of the Yavana, who submitted to king Jarasandha. But one royal person defeated by one Jarasandha, king of Bhagadha, was Semiramis.—*Bunsen, Vol. p. III.* 555.

BHAGANA. Sans. The circumference of a circle. Independently of astronomical purposes, the hindus frequently divide the circumference of the circle into 12 Rasi or Signs, subdivided sexagesimally into Bhaga, Cala, Vicala, &c., *i. e.* degrees, minutes, seconds, &c. Bhagana means also a revolution.—*E. Warren.*

BAGAR, Hind. The grass Eriophorum cannabinum.

BHAGAT, Hind. A hindu religious puritan initiated by a necklace of beads round the neck, and a circle on the forehead. After initiation the puritan abstains from flesh and spirits. But Bhagat, Bhakt, simply means a follower, or worshipper as Siva bhagat, or Vishnu bhagat, a worshipper or follower of Siva or Vishnu. Bhagat is also the name given to the head of the math or temple of Kanoba. He works himself into a state of hysteria, on the Janm Ashtami, and the people believing him to be then possessed by Krishna, worship him with incense and prostration, and present sick people to be touched and cured.

BHAGAVADA, a hindu goddess. Bartolomeo says that her figure was on the pagoda coin, and gave it the name. See Bhagavati; Pagoda.

BHAGAVAN or **BHAGAVAT.** A name of deity, denoting God. The derivation, reduced from metaphor, means the primary cause of creation. Bhagwan is the name by which all hindus recognise the Supreme Being.—*Taylor.* See Inscriptions, 388; Krishna; Narayana.

BHAGAVAN DASA. The slave of Bhagavan. See Narayana.

BHAGAVAT, Sans. Divine. See Bhakta; Kali; Kasambi; Krishna; Vallabha Acharya; Vaishnava; Yama.

BHAGAVATA, Sans. From Bhagavat, divine. See Inscriptions, 375. Veda.

BHAGAVATA. An extinct Vaishnava sect, who wore the usual marks, the discus, club, &c., of that divinity and likewise reverenced the salagram and tulasi; the Bhagavat of the present day is one who follows particularly the authority of the Sri Bhagavat Purana.

BHAGAVATA SARIRA of the Bactro-Pali inscriptions discovered by generals Ventura and Court and Mr. Masson; certain titles in them such as Maharaja or King and Chhatrapa, "Satrap," and particular terms, such as Bhagavata Sarira, or relics of Buddah; mata-pita or mother and father, putra son, and vihara, a monastery, had long been known.

BHAGAVAT-GEETA. Sans. From Bhagavat, divine, and geeta, a hymn, *i. e.*, Divine Song, a Sanscrit poem in the form of a dialogue between Arjuna and Krishna. It is an episode containing Krishna's instructions. The brahmins regard it as only inferior to the Vedas; first translated by Charles Wilkins in 1785. It is the most intelligible and most interesting of all the Sanscrit writings. It is written in splendid metre and belongs to a literary age. The dates of the Schools of Philosophy, the Dirasana of the hindus, depend on that of Buddha, who lived 544 B. C. according to the hindus, and 350 B. C. according to German critics. The Bhagavat Gita, the Mahabarat and the Ramayana are to the hindu all that the bible, the newspaper and the library are to Europeans.—*Taylor.*

BHAGAVATI. Sans. In hindu mythology is the wife of Bhagavan. Bhagavati, Sans. is from bhoga, to endure or enjoy.

BHAGAVAT PURANA. One of the books of the hindus, styled Purana, of which there are eighteen. The Vishnu Purana is that best known. See Sumatra.

BHAGAVEN SAKYA MUNI. A name engraved on a copper plate found in the relic chamber of one of the Kenneri caves, age 2nd century, B. C. See Inscriptions, p. 391.

BHAGELA. See Bagela.

BHAGELCUND. "The land of the Bhagel." Rewah is the capital of Bhagelkhund, founded by the Bhagela Rajpoots, a branch of the Solanki kings of Anhulwarra.—*Tod's Rajasthan, Vol. I.* See Bagelkand, Guzerat.

BHAUGELPOOR. A revenue district of Bengal, formed out of the ancient Bahar.

BHAGIRATHA. One of the Solar dynasty. See Surya Vansa.

BHAGIRATTI PEAK, in L. 30° 56′ N. 5; and L. 78° 59′ 1. E. is in Garhwal, near the origin of the Bhagiratti river, and 21,390 feet. G. T. S. in height. Herbert and Hodgson call this peak the "Pyramid," and give Lat. N. 30° 54′ 6″; Long. Gr. 79° 2′ 8″; E. Height 21,379 feet.—*Schlag.*

BHAGMUTTY. A river of Nepaul. Katmandu, the capital is built at the junction of the Bhagmutty and Bishmutty.

BHAG-NUGGUR. The ancient name of Hyderabad in the Dekkan.

BHAGNUR The rich alluvial lands under the Jumna.

BHAGOOL. A river of Shahjehanpore and running near Shahi in the Bareilly district.

BHAGTA. A tribe of the Ahir race.

BHAGALPUR, in L. 25° 14′ 8″, N. Long. 86° 56′ 6″ E., in Bahar, on the right bank of the Ganges, 143 miles E. of Dinapur. At the level of the railway it is 154 feet above the sea. Hooker mentions that he found growing here the Tecoma jasminoides, Erythrina; Adansonia, Bombax, teak, banyan, peepul, sissoo; Casuarina, Terminalia, Melia and Bauhinia.—*Him. Jour. Vol. I. p.* 92. See India, 328 9, Kol. 536.

BHAGWAN. Hind. God, Lord, the deity, the supreme Creator. Amongst Vaishnava hindus, a name of Vishnu. See Bhagavan.

BHAGWANA, in Baluchistan, is a cave in a rock filled with the dried mummy-like bodies of infants some of which when seen by Dr. had a comparatively recent appearance.

BHAI, Hind. Brother, comrade, from which are many compound words: *Bhai-band*, relatives, connections, fellow townsmen. *Bhyachara* or Bhai-bhant lands held in common by relatives.—*Elliot, Sup. Glos. p.* 64.

BHAI Latterly the title of Bhaee was in practice frequently given to any Sikh of eminent sanctity, whether his ancestor were the companion of a gooroo or not. The Behdi and Sodhi, however, confine themselves to the distinctive names of their tribes, as the Behdee called themselves Bâba and the Sodhee sometimes arrogate to themselves the title of gooroo, as the representatives of Govind and Ram Das.—*Cunningham's History of the Sikhs, p.* 65.

BHAI BHAGTOO. The founder of the Kythul family. He was a useful partizan of Lord Lake, but was subsequently reduced to comparative insignificance under the operation of the British system of escheat. Dhurrum Singh, the ancestor of the respectable Bhai of Bagreean, a place between the Sutlej and Jumna, was likewise a follower of Hur Raee.

BHAIAD, Hind. A brotherhood, a term given to the kinsmen of a Jharejah chief. See Bhai.

BHAI-BIRRUNG. The seed of a plant brought to Ajmere, from Harowtee, considered warm and used in mesalih, and in prescriptions to promote digestion.—*Genl. Med. Top., p.* 126.

BHAI-BYA, Burm, ? In Amherst, a timber used for house posts, commonly called White Jarool.—*Captain Dance.*

BHAIL, Hind. Salix, sp.

BHAINS, Hind. a male buffalo. Mhains. Hind. a she buffalo.

BHAINSH, Hind. Salix tetrasperma.

BHAI-PHAMBA. The flowers of a plant brought to Ajmere from Harowtee, considered warm, and used to promote digestion.—*Gen. Med. Top., p.* 126.

BHAIRA. See Oryza sativa.

BHAIRAVA, Sanscrit, Tremendous. A title of Mahadeva, as the destroyer. Bhairava or Bharui is an incarnation or a son of Siva, in

traveller from the West, Professor Bikmore, from America, who was in Sumatra in 1865 mentions that they are an inland people, the Malays from Menangkabau having spread and occupied all the coasts. They believe in evil spirits and omens. On the Dutch acquiring the possession of the plain of the Mandeling valley, the Batta dwelling there were compelled to abandon their cannabalism but all beyond Dutch territory, the race still continue to pursue their old customs. He had not, however, been able to verify that part of Sir Stamford Raffles information which includes marrying into another tribe, ... incurring the penalty. The Rajah of
red the Dutch Governor at Pedang
eaten human flesh at least forty
he relished it above everything
ever tasted.—*Bikmore's Travels*,

A rajput tribe of Yadubansi des-
are the rulers of Jeysulmer which
A. D. 1156 and give their name
country, between Hissar and the
lled Bhattiana. The tract from Loni
as called Bhatner after them. Some
became converts to mahomedanism, after Timour's invasion. Shortly after that event, a colony migrated from near Bhawalpur under a leader Bersi, and captured Bhutnere from a mahomedan Chief.—(*Elliot*)

The Jit and the Bhatti seem to have been so
distinction is now impossible.
the advance of Mahmud of
arfare on the Indus,
Tod to have long
themselves in the
in the Panjab, and
power as they were
six royal races.
twelve years after
Shahab-ud-din the
northern desert attempted to wrest
om the mahomedan empire, and Kutub-
s successor, conducted in person the
the invading Jit. When the dethron-
zzia sought their protection, they
r forces with their Scythic brethren
nd marched with the queen at
meet her foes, but she fell in
attempt to regain her kingdom.
mentioned that in A. D. 1397, when Timour invaded India, Bhutnair was attacked for "having distressed him exceedingly on his invasion of Multan," when he "in person scoured the country and cut off a tribe of banditti called Jit." The Batti of Jessulmer retain their hindu notions, though with some degree of laxity from their intercourse with the mahomedans on the northern and western frontiers; while those which long occupied the rth-east tracts, towards Phoolra and the arah, on becoming pr

to have either interest in or connection with the parent state. The Bhatti did not enjoy the same martial reputation as the Rahtore, Chohon, or Seesodia, but he was deemed to equal if not surpass the Cuchwaha, or any of its kindred branches, Nirooka or Shekhavat. He is not perhaps so athletic as the Rahtore, or so tall as the Cuchwaha, but generally fairer than either, and possesses the jewish features of the Bikaner rajpoots. The Bhatti intermarries with all the families of Rajwarra, though seldom with the Ranas of Mewar. The late Juggut Sing of Jeipoor had five wives of this stock. The dress of the Bhatti consists of a *jamah*, or tunic of white cloth or chintz reaching to the knee; the *cumerbund*, or ceinture, tied so high as to present no appearance of waist; trowsers very loose, and in many folds, drawn tight at the ancle, and a turban, generally of a scarlet colour, rising conically full a foot from the head. A dagger, shield and sword complete the dress. The Bhattiani wears a fine woollen brilliant red gagra or petticoat, and scarf thirty feet in width. They, also, wear the chaori, or rings of ivory or bone, which cover their arms from the shoulder to the wrist, of value from sixteen to thirty-five rupees a set, and silver kurri (massive rings or anklets) are worn by all classes, who deny themselves the necessaries of life until they attain this ornament. The poorer Rajpootni assist in the husbandry. The Bhatti is addicted to the immoderate use of opium or umlpani, "infusion," and the pipe. The Bhatti annals may be divided into four distinct epochs: 1st, that of Heri, the ancestor of the Yadu race. 2nd, their expulsion, or the voluntary abandonment of India by his children, with their relations of the Hericula and Pandu races, for the countries west of the Indus: their sarundhati, the ...rust'hali: the founding of Gu... suggests that with the kings of Room and ... orasan. 3rd, their expulsion from Zabulist'han, colonization of the Punjab, and creation of the new capital of Salbahanpoor. 4th, their expulsion from the Punjab, and settlement in Mer, the rocky oasis of Maroo to the erection of Tunnote in the Indian desert in A D. 731.

The Bhatti, are a branch of the Yadu or Jadoo race, whose power was paramount in India three thousand years ago; and the prince now governing this distant corner of India, claims descent from those Yadu kings who ruled from the Yamuna to the "world's end," at that remote period. Colonel Tod is of opinion that the Yadu-Bhatti is the original Yuti colony from Central Asia, and that the Jit prince of Salpur was the predecessor the Yadu Bhatti races.—*Tod's Rajasthan, Vol. II. pp.* 212,285.

BHATTHI HIND. A distillery, a still, a ...er, a ...

BHATTIAH, a mercantile race, supposed by Colonel Tod to have been one of the equestrian order converted into the commercial. The habits of the Bhattiah are like those of the Arorah, next to whom he ranks as to activity and wealth. The Arorah and Bhattiah have commercial houses at Shikarpoor, Hydrabad, and even at Surat and Jeipoor.

BHATOO. A wandering tribe in the south of India who perform as athletæ. They are not numerous, they are known as dumur in the Canarese districts as kollati in the Dekhan. Dumbram in Tamil and Dumberwar in Telugu, and as jugglers and tumblers. Their young women are prostituted or are devoted at Chinchor, as murli girls, and they reverence the idols at Triputty and Gudaloor (Cuddalore) ? They keep no idols, do not respect brahmins. They bury the dead.

BHATTIYA, a brahminical dynasty of five kings of Magadha in ancient India who reigned from B. C. 578 to B. C. 447 all parricides. According to Bunsen (iii. 539) the Bhattya dynasty, was also called Maha-padma, "abounding in stones," Bhattya lost his independence and the dynasty commences with his son, Bimbasara who reigned 52 years, and was succeeded by his son Agata Satru who reigned 32 years. The seventh king after Bimbasara was named Sisunaga who reigned 18 years. He was five years younger than, and was the friend of Buddha. He was succeeded by Kalasoka (28 years) whose son Bhadrasena, with 22 years for himself and his nine brothers, was the predecessor of Nanda.—*Bunsen, Vol. III. p.* 539.

The Bhattiya Sisunaga and Nanda dynasties ruled as under.

formed out of

PHAGIRATHA. O

Name.	[illegible]	[illegible]	Remarks, when murdered	
I. House of Bhattiya.				
a. Bimbasara.......	52	578	Murdered by his son & successor	527
b. Ajata Satru.....		526	,,	495
c. Udayabhadra (Udaya)....		494	,,	479
d. Anurudhaka (Munda).		478	,,	471
e. Nagadsaka.		470	,,	417

End of the dynasty of the Parricides

	Years reigned.	Died.
II. The House of Sisunaga		
aga		[illegible]
b. Kalasoka......	28	428
c. Bhadrasena and 9 brothers	22	400

The last of the brothers, Pinjamaka, was dethroned by Nanda.

III. Nanda and his sons. Nanda was not a person of princely extraction but rebelled against Pinjamaka, as leader of a local revolt, captured Pataliputra and became King................. 378

Nanda's younger brother is dethroned and murdered by Chandragupta Length of Nanda's reign 66 years, last year...... 312

IV. House of Maurya.

Chandragupta's accession... 312

BHATULA, Hind. a hard bread made from the grain of "arhar," "chenna" and "mung."—*Elliot.*

BHAU, Mahr. A title of respect as Hari-bhau several of the mahratta leaders were termed Bhao as Sedaseva (Sadashi) Bhao. See Bhao.

BHAU, Hind. A daughter in-law.

BHAUCHYA. One of the 14 Patriarchs who are supposed to preside successively over the 14 Manwantara of the Calpa.

BHAU DAJI, Dr., a learned medical man, a native of Western India of the middle of the nineteenth century. He was born near Sawantwaree in the Concan, and educated a medical man at the Elphinstone and Grant Medical Colleges. He has written on female infanticide, he founded the Bombay Reform Association and the Boards of Education, museums and learned societies owe much to his exertions.

BHAUMA. One of the names of the planet Mars.

BHAU MALLANG, Lat 19° 6, N., L. 73° 12 E. in the Konkan, a hill 10 miles N. E. of Panwel. Top of the hill, is 2,250 feet, above the sea.

BHAUTTOOI, Beng. Chrysopogon acicularis

BHAVA, Sans. The world, hence Bhavanada, Sans. from bhava, the world, and anunda, joy.

BHAVA-BHUTI. A learned brahman. See Kala Priyanath.

BHAWAN. A house, a temple.

BOWANY. A river that rises at the eastern foot of the Neilgherry Hills, among the Kundah group, Lat. 11° 15' Lon. 76° 4' and joins the Cauvery in Coimbatore.

BHAVANJI CHETTU. See Psoralea corylifolia.

BHAVER, Hind. In the N. W. Himalaya, forest tract below the Sewalik range : this term is not used in the Punjab.

BHAVAN, Sans. From Bhăvă, a name of Siva.

BHAVANI, wife of Siva, a hindu goddess, to whom also, the names Aparajita, Chandika, [illegible]ri, Parvati, Prakriti, are seed or cucumber seed, and strain. The spices render it more inebriating. The hemp-plant in tropical countries also exudes a gum, a very powerful stimulating narcotic, which it does not produce in cold countries. It is the Charras of India The dried leaves under the name of bangh partake of this narcotic principle, and are used all over India, to produce intoxicating effects. Under the Burmese government at Tavoy, no one was allowed to cultivate the plant withou a licence from Government. Sometimes a general permission was given, and at other times a general prohibition would be issued. Throughout India also bhang is one of the exciseable articles and the plants are taxed for revenue.—*Faulkner. Herklots. Mason. Powell. Faulkner.* See Cannabis.

BHANGAR BIJ, HIND. Asphodelus fistulosus.

Bhangi...	...HIND.	Lal Begi....	...HIND.
Scavenger...	...ENG.	Khak-rob...	
Halal-Khor...	...HIND.	Toti...	...TAM. & TEL
Mehtar...	... „		

A person acting as a scavenger in a household They are often mahomedans and often of the Madega caste. They are found all over India well to do, earning very large incomes, but they are becoming fewer daily as many emigrate and, under British rule, educate their children for higher avocations. The word is probably from Bhangi, the shoulder stick for carrying weights. The descriptions given of them by Wilson and Elliot are no longer applicable. One man in a small hamlet in Berar was earning Rs. 37 monthly.

BHANGI. A labourer who carries burthens with a shoulder pole like a milk-maid.

BHANGI, HIND. A shoulder pole with slings from which boxes are suspended. In the Panjab, Dandy poles, Banghy poles and shafts are made of the timber of Acer cultratum ; Bambusa arundinacea ; Betula bhojputra ; Cotoneaster obtusa ; Ficus Indica ; Fraxinus floribunda ; Fraxinus Xanthylloides ; Grewia oppositifolia ; Lagerstrœmia parviflora ; Quercus dilatata ; Quercus semicarpifolia ; Taxus baccata and Alnus campestris.

BHANGRA, HIND. Eclipta erecta, also Viscum album.

BHANPOORA in Long. 75° 50′ E. and Lat. 24° 30′ N.

BHANPOORA, near Bhanpoora, is a small rivulet called the Rewa, coming from the glen the pass, near which is the mausoleum of swunt Rao Holcar, adjoining the scene of his atest glory.—*Tod's Rajasthan, Vol. II. p.*

[illegible] Bambusa arundinacea :

[illegible]

[illegible]h of the Ahir tribe.

BHANT, [illegible]G Volkameria infortunata.—*Roxb.* Clerodendron infortunatum.—*Linn.* Syn. of Clerodendron viscosum.—*Vent.*

BHANTA, SANS. Solanum melongena.

BHANWAR, HIND. Ipomæa sessiliflora.

BHAO, MAHR. A brother, a cousin, an honorific adjunct to names, as Sadaseva Rao Bhao.

BHAO, HIND. A daughter-in-law. Bhao Begum, the Begum daughter-in-law.

BHAOLEE. Rent of land paid in kind.

BHAORA. A scattered migratory tribe in the peninsula of India who snare game and wild beasts. They are styled Pardhi by the Canarese, and Harn Pardhi, and Harn Shikari in the Dekhan, and the British style them the Shikari and hunter caste.

BHAR, also written Bhur are an aboriginal race in Central India, of whom the Raj-bhur, the Bhurut and Bhurputwa are sections though they do not eat together nor intermarry. They are said to have occupied the tract from Gorukpur to Bundelcund and Saugor, and many old stone forts there are ascribed to them, but in that part of India they are now filling the meanest situations, on the hills to the east of Mirzapur, the principalities of Korar, Kurrich and Huraha, are however each held by Bhurrajahs.—*Elliot, p.* 83. See India, p. 327.

BHARA, HIND. Hir[illegible]

BHARADI, the godd[illegible] learning, a name of Saraswati.

BHARADWAJA appears in the Ramayana as a sage residing at Prayaga or Allahabad, where a temple dedicated to him still exists on the high bank of the Ganges. In the Mahabharat, Bharadwaja, is described as residing at Haridwar, and the father of Drona the military preceptor of the Pandava and Kaurava princes. He is also the parent of Arundhati, the wife of Vaishtha. Sir H. Elliot suggests that there may have been two saints of nearly the same name, Bhāradwaja and Bhăradwaja ? In Sanscrit the long A indicates descent : as Sá[illegible] from Sagara, Bhagirathee from Bhagiratha. [illegible] the same way Drona the son of Bháradwa[illegible] called Bháradwaj in the Mahabharata. [illegible] Hindu.

BHARAJAY BUNDER in Long 46' E. and Lat. 24° 30' N.

BHARANGI. Verbesina prostrata. [illegible] bark of the stem of this small plant is [illegible] to Ajmere from Harowtee. It is considered [illegible] and is used to promote digestion.—*Gen.* [illegible] *Top. p.* 126.

BHARANGI CHETTU, also Gantu [illegible]angi, Clerodendron, Sp. W. 68.—Bhar[illegible] and Br. 1259—Bhargni, which are ex[illegible] to be Clerodendron Jiphonanthus but [illegible] refer to another species of Clerodend[illegible] Gantu bharangi. q. v.

BHARAO from Bharava, a field of a size to require a bhara of seed. It is a term in use in the Himalaya.

BHARATA. Bharata the founder of a dynasty in the vicinity of the Indus. The line ended with Samvarana, being driven from the Indus country, westward by the Pankala. Bharata is said to have been the first to establish a raj in India, but this probably means merely a new dynasty.—*Bunsen, Vol. iii. p.* 558, 589). See Balla.

BHARATA, a dynasty in India known as the Bharatidæ finally overwhelmed by the Pankala. Their last ruler was Samvarma who was driven by the Pankala westward. Under this name, Bunsen supposes two historical accounts. The first Bharata, a supposed son of Bhumanya, he thinks is the name of the primitive race, who settled in Central Hindustan, the Madhyadesa or Aryavarta. The Bharata kingdom seems to have been established between B. C. 2,600 and 2,200. The country was overwhelmed by the Pankala, and it was followed by an interregnum B. C. 589. (See Inscriptions.) Wheeler says that Bharata, son of Dushyanta was of the Aryan race, and established the Bharata kingdom in Hindustan, amidst a preceding people. Some authors of Europe have lately endeavoured to apply the term Bharata, to the entire of India, but the extent of the kingdom formed by the Bharata is extremely uncertain. It seems however to have had tributary kings or kingdoms in alliance, and it probably varied in extent with the usual fortunes of nations. A slokam in the Sanskrit work, the Amarakosha,

Ariavartaha punia bhumi hi,
Mad'hiam Vindhya Himava Yoho,

i. e. "The Arian country, the sacred land (lies) between the Vindhya and the Himalaya," indicates the ruling race and the boundaries of the kingdom held by them at the period that Amara Sinha wrote the Amara-kosha. Duryodhana, son of rajah Draupada of Panchala aided the Kaurava in the battle at Kurukshetra, as also did the king of Magadha. The poem of the Mahabharata contains 100,000 verses, each verse containing 32 syllables. The groundwork of the poem, the Kaurava and Pandava war, contains 24,000 verses. This leading story commences with Atri, a flash of light from whose eye produced the moon (which in Sanskrit is male), and that being was the ancestor of the lunar dynasty of kings. One of these kings was Parū ravas, whose love for the heavenly nymph Urvasi is detailed in Kalidasa's drama Vikramorvasi:—his descendants in a direct line were Ajas, Nabusha and Yagati the last becoming the father of Puru and Yadu. The line of Yadu cquired celebrity through Vasudeva and his ter Kunti or Pritha, and also through his sons Krishna and Balarama, who have become reputed as incarnations of the god Vishnu. Puru's son was Dushyanta, who married Sakuntala, and their son was Bharata. From Bharata descended successively Hastin, Kuru and Santanu. Santanu married Satyavati, already the mother of Vyasa, but their children died without offspring, and Satyavati then asked her son Tyasa to marry her widowed daughters-in-law, by one of them he had Dhritarashtra born blind and by another Pandu born a leper or an albino. Dhritarashtra married Gandhari, and amongst their many children were Duryodhana also called Suyodhana and Duhsasana, these were the Kaurava. Pandu married two wives, viz. Pritha sister of Vasudeva and aunt of Krishna, and Madri. By Pritha, he had three sons, Yudhishthira, Bhima and Arjuna, by Madri. twins Vakula and Sahadeva and these were the Pandava. Both the Kaurava and the Pandava were related to Krishna, but the Pandava more nearly so, owing to their mother Pritha being aunt of Krishna. Vyasa the compiler of the Mahabharata is the reputed grandfather of both the Kaurava and the Pandava. It is the series of events, which happened in the life of the Kaurava and Pandava, that forms the ground work of the great epos of the Mahabharata, and they may thus be briefly related:

Santanu had resided in Hastinapur, the ancient Dehli and after his demise, Dhritarashtra was by seniority entitled to succeed. But as he was blind, he resigned the throne in favour of his brother Pandu. The latter became a powerful monarch, but after a while, having become tired of his regal duties, he abdicated and retired to the forests of the Himalaya, to indulge in his favourite sport, the chase. His brother Dhritarashtra, then resumed the reins of government, but being blind, his uncle Bhishma governed for him and conducted the education of his sons. After a while Pandu died and his widow Pritha ar[illegible] her five sons ret[illegible]l to Dhritarasht[illegible] court to be educ[illegible] long with his own children, their c[illegible] A lear. But the Pandava brothers were sup[illegible]s and their cousin Duryodhana out of se, a te [illegible]y tried to destroy them, first by poison, hat ri at trials of arms: Subsequently, Drona, a br[illegible]man, who had taught the Kaurava, brought about a reconciliation, and the relatives unitedly attacked Drupada, king of Panchala (Canouj) who, principally by the Pandava's aid was defeated. On this, the blind king Dhritarashtra resolved to pass over his son Duryodhana and named his nephew Yudhisthera, the eldest of the Pandava to the throne, and their cousin, Duryodhana made another effort to destroy them by burning them alive. This, also, they escaped, but they considered it advisable to conceal themselves, which they did by assuming the form of mendicant brahmins and retired to the forests. After some time they were informed by Vyasa that Drupada king of the Panchala would make his daughter Draupadi, queen of a tournament to be won by the most successful competitor, and she was won by Arjuna. On this occurred a civil commotion in which Drupada nearly lost his life,—but Draupadi went with the Pandava brothers and became their joint polyandric wife.

At that time, chastity prior to marriage does not seem to have been adhered to, for Satyavati, who married Kuru, had previously born a son (the celebrated Vyasa). And, to an impetuous son, Pritha, aunt of Krishna, who subsequently married Pandu, had previously born a son Karna, in some miraculous manner: and, both Krishna and Bal Rama are said to have associated with their sister before she was married to Arjuna, as his second wife. After the tournament, the Kaurava and Pandava made peace, the former to reign at Hastinapur, the ancient Dehli, and the Pandava at Khandavaprastha, the modern Dehli. Yudhishthra the eldest of the Pandava, reigned so successfully that he resolved to declare himself emperor, by the performance of the Rajasaya sacrifice. This was accomplished with much splendour, but Yudhishthra was afterwards involved by his cousin Duryodhana, in a game at dice, and Yudhishthra lost everything, kingdom, wealth, and his joint wife Draupadi. Duryodhana offered to restore their kingdom if they would exile themselves for 13 years. In these 13 years, they all took service with king Virata of Matsya and ultimately defended him against an attack of Duryodhana. On this account, Virata gave his daughter Uttara in marriage to Abhimanya, son of Arjuna by Subahdra. In claiming restoration to their kingdom, at the close of the 13 years, the Pandava first tried negotiations, offering to be content with five small towns, and they ultimately resolved to fight it out on the plain of Kurukshetra, the rules of battle being duly laid down. In the battle that ensued, and which lasted 18 days, the Kaurava lost successively all their chiefs, Bhishma on the 10th day, Drona on the fifth day, Karna on the second day, and their last commander Salya was killed on the first day of his command. In these battles, much foul play was practised on both sides. After the close of the battle Yudhishthira was elected heir apparent of the old blind king Dhritarashtra. But the latter subsequently abdicated and led the life of a recluse, along with his wife Gandhari, Pritha the mother of the Pandava and their uncle Vidura. Vidura soon died and all the rest of the royal exiles perished in a forest conflagration. The grief of the Pandavas, for this was great and they too after hearing also of Krishna's death and of the destruction of Dwarka, resolved to abdicate, and they all set out for Mount Meru but all save Yudhishthira perished before reaching it. Yudhishthira ultimately entered Indra's heaven and there found all the Kaurava relatives and his brothers.

The Mahabarata contains as an episode, the Bhagavadgita, a discourse on the Yoga philosophy. Both Professors Lassen and Mr. Wheeler consider that the Pandava history in the Mahabharata convey a history of India in successive periods.—*Westminster Review, April* 1068.

BHARATA-VARSHU. Sans. from bharata, and varshu, a place. Bharatavarsa, is an ancient name of India, so called from king Bharat. It is still the hindu name for the continent of India and was the only name formerly used by the natives for the countries that the British include in the term India. Hindu, for the people, and Hindustan, for the country, now generally applied by natives and foreigners, are pro[illegible] of Arian origin, from the rivers, Haft Hindu, which the Arians met in the Punjab. Bharata was an ancient king of India, and hence Mr. Wilkins derives its name; in so doing of course rejecting the supposition, that the river Indus (properly Sindhu, vulgarly pronounced Sindh and the S. altered to H, Hindh, either gave a name to the country, or received one from it: rejecting also Indu, a name of the moon) being the origin of Hindu and Hindustan, the Sanscrit having no such words. See Hetopadesa, p. 333; Inscriptions; Hindu.

BHARATI. Sans. Speech, or its goddess: perhaps "Bharadi," a name of Saraswati, the goddess of learning. The prevailing title of the latter Sringagri gurus.

BHARATKANDA. See Magadha.

BHARAVA, Hind. Same as Bharao, a field of a size needing a bhara of grain to be sown.

BHARBHANI, Hind. Argemone Mexicana.

BHAR-BUNJA, Hind. Grain parchers, selling sweet-meats.

BHARGAVA, Sans. The son of Bărigoo.

BHAROUDEN, in L. 76° 30′ E. and L. 25° 55′ N.

BHARI, Hind: Cajanus bi-color.

BHART-KUL. A sub-division of Gour brahmans

BHARTTIHARI JOGI. An order of hindu mendicants who say that they were instituted by Bharatri hari, brother of Vikramaditya, a century before Christ.

BHARWI, Hind. Imperata Kœnigii.

BHARWUTTIA. See Bahr-Wattiah. Rajpoots.

BHASKARA, Sans. From bhas, light, and kri, to do. A treatise on the sun, its true nature, in the Mimansa-Upanga. See Vidya.

BHASKARA ACHARYA. An Indian astronomer, who wrote a commentary on the Siddhanta in Hindu books. He is stated to have flourished in the 4252d year of the Cali

Yug (A. D. 1150); but it is known that he was posterior to Arya-bhatta who wrote his treatise in A. D. 1322.—*Capt. E. Warren.* See Sanakadi Sampradayi.

BHASHA, SANS. A dialect, from bhash, to speak. The terms Bhasha or Pracrit mean vernacular tongues. See Gaura, India, p. 321.

BHASHYA, SANS. From Bhasha, a tongue, a lingual treatise. One of these treatises was written by Vallabha Acharya.

BHASNUAM, SANS. Ashes.

BHAT, GUZ. HIND. Paddy. Boiled rice. Curry-bhat, Anglo-Beng. Curry and rice. Doodh-bhat, rice and milk. A British nursery rhyme, in Calcutta, goes

Kitsha kitsha kowa k'hai.
Doodha bhata Baba k'hai.
Baba k'hai chori.
Musalah ka thori

BHAT, HIND. The Bard.

Bhatta	SANS.	Bardeit	[illegible]D.
Phatis	GREEK.	Parat	[illegible]EB.
Vates	LAT.	Bard	ENG.

This is the court ministrel of India, the almanac maker, the chronologist, the family bard, the astrologer, the genealogist. They are found all over India, but are numerous in and near Rajputanah, the Birm-bhat and Jaga-bhat, the former at weddings and the other at festive occasions, recite the deeds of ancestors; the latter keep the family records of rajputs. Bhat, is however a word seemingly of different origins, as its applications are very various. According to Professor Wilson in the Glossary and Sir Henry Elliot concurs in this, it is a title or cognomen of learned brahmans; (2) also the name of a brahmanical tribe in Benares said to have sprung from a Mahratta [illegible] and a mother of the Sarwaria tribe of [illegible]ns; (3) a common title of Mahratta [illegible], especially if they live by begging. [illegible] Bhat of Southern India, is also the bard, the [illegible]ger and genealogist, but, brahmans often [illegible] their work, as in Rohilcund. According [illegible]e fable of their origin, Mahadeva created [illegible]at to attend to his lion and bull, but the bull was daily killed by the lion. On which, Mahadeva, tired with daily creating a bull, formed the Charun, equally devout as the Bhat, but of bolder spirit, and gave him charge of the animals, from which date the bull was never destroyed by the lion.—*Wilson's Gloss. Elliot's Supple. Gloss. Malcolm's Central India.* See Bard; Charun; Cutch; India, p. 334; Rajput.

BHATA, HIND. Crotalaria Burhia.

BHA-TA-KA. BURM. In Tavoy, a wood used for common carpentry.—*Captain Dance.*

BHATANI, a race of people, said to be of mixed origin.—*A. Cunningham.*

BHATGAON, a district of Nepal. town of same name is perhaps superior to Khatmandoo, for though the least considerable of the three chief towns in point of size, yet its buildings in general have a more striking appearance; and its streets, if not much wider, are at all events much cleaner than those of the metropolis, a distinction which it owes to its admirable brick pavement. Bhatgong lies E. by S. of Khatmandoo, at a distance of nearly 8 road miles. Its ancient name was Dhurmapatan, and it is called by the Newar race, Khopodaire; by whom it is also described to resemble in figure the Dumbroo, or guitar, of Mahadeo. It is the favorite residence of the brahmins of Nepaul, containing many more families of that order than Khatmandoo and Patun together.

BHAT-KATAI, also Bhat-katia. SANS. Solanum Jacquini.—*Willde,* also Solanum Xanthocarpum also Argemone Mexicana.

BHATKOORAL, HIND. A hard close grained wood, of a light grey color and not heavy. Rather scarce in the Santhal jungles from Raneebahal to Hasdiha about forty miles. Well adapted for timber bridges, where strength and toughness require to be combined with lightness.—*Calc. Engineers' Journal.*

BHATMIL, HIND. Argemone Mexicana.

BHAT-NAGAR, HIND. A tribe of Kayets, originally from Bhatner.—*Elliot.*

BHAT-NIGGI, HIND. Wikstræmia salicifolia.

BHATOTAR, HIND Lands allotted to bard

BHAT-SHOLA, BENG. Æschynomene Roxburghii.

BHATTA, SANSC. A sage; according to Wilson, a brahmin who is acquainted with Sanscrit literature.—*Elliot. Wilson.*

BHATTA ACHARYA. A teacher of Sanscrit literature.—*Wilson.*

BHATTA, HIND. TAM. TEL. Any extra allowance in India, ploughman's wages in kind.

BHATTA, BATTA OR **BATTAK.** A Malay race, addicted to eating human begins. They have long been known to be given to this unusual practice. They occupy the valley of Mandeling and to the west, and the easterly portion are under the dominion of the Dutch. The language they use is said to be different from the Malay and to have several dialects, but it has an alphabet invented by themselves, and in this matter they are perhaps the only human beings who have advanced to a knowledge of letters, but continued to eat each other. Marsden in his history of Sumatra notices them. The writings of Marco Polo show that so long ago as A. D. 1290, they were known to be addicted to indulgence in this propensity, and Sir Stamford Raffles, in 1820, after visiting Tampanuli bay, mentioned that for a person convicted of adultery, of midnight robbery, prisoners of war, a person intermarrying with another tribe, a person treacherously attacking a village, a house or another person, the punishment was to be cut up and eaten alive. The most recent

BHAL. A tribe of proprietory rajputs, in Secundrabad, Balundshahr, Hatras and Tuppul in Aligurh.—*Elliot*

BHALABIPOORA. A submerged city in Kattiwar, inland from Bhownuggur, covered with 18 feet of alluvium. Half the towns and villages around are built from the bricks and carved stones of the ancient city.—*Dr. Nicholson, Bombay Times, February* 1852. See Balabhi.

BHALGAON. Two towns in India one in L. 78° 20' E. and L. 22° 53' N. the other in L. 85° 19' E. and L. 27° 45' N.

BHALIKA, contemporary with Dhritarashtra, and the five brothers Pandu, Bhalika means the Bactrian, from Balkh, the later form of the name of that city.

BHALLATAKI, SANS. also Bhallátamu. also Arushkhara. SANS. Bhilawa, HIND. Semecarpus anacardium, L. Marking nut.

BHALLA, BENG. Semecarpus anacardium. Marking nut tree.

BHALLODE in L. 73° 20' E. and L. 21° 51' N.

BHALOO, HIND. A bear.

BHALLOO SOOR. HIND. Meles collaris, wi[illegible] albogularis.—*Blyth.*

[illegible]I-SULTAN. The Bhal rajput clan [illegible]e in Benaudhra and Goruckpoor.

[illegible]ALUNJ. A town in L. 84° 4' E. and [illegible]7° 33' N.

[illegible]HAMAH. A race in the valley of Nepaul [illegible]osed to be an offshoot of the Newar. The [illegible]mah shaves his head like the Bhotiah.

BHAMADATASA. The name of a king on one of the coins of the Ramadatta series of Kalinga.

BHAMADATTA. A king of Kalinga, supposed to be the Brahmadatta, who at Buddha's death received the tooth relic at Kalinga. See Inscriptions, p. 384.

BHAMBUR. A ruined town in Sind, on the banks of the Indus, captured during the khalifat of Harun-ur-Rashid.

BHAMO in upper Burmah, distant about one hundred and eighty miles N. N. E. from the royal city of Mandalay. The old town of Bhamo lies two days journey up the Tapan river, one of the nearest tributaries of the Irrawaddy in that locality, Shans were once the principal settlers in the old town. The present city is situated about forty miles west of the Chinese frontier, and contains about two thousand houses, having a wall and raised embankment all round it. Many of the houses are of brick, built principally by the Chinese, of whom about one-half of the population is composed. The remainder are Shan and Burmese. It carries on a trade by means of caravans, with some of the large cities in Western China, in [illegible]llen, cotton and silk goods. Several large found in the neighbourhood. There is a Chinese temple, which is one of the most remarkable buildings in that town. Though not kept in very decent repair, it is considered rather a handsome building, one of the first erected on the site of the present town. See Bamo, China, India, p. 344. Ka-khyen. Panthay, Mahomedan.

BHAMOREE in Long. 78° 24' E. and Long 23° 18' N.

BHAMTI, also Bhamatya; in Berar, Bhamwatya, a pick-pocket, a thief.

BHAN. A captive seized by a Bahr-Wattiah. See Bahrwattiah, Rajpoots.

BHAN, HIND. SINDI. Populus Euphratica, the Euphrates poplar, grows in N. W. Himalaya; used in Sind for rafters and turning work. It is to be found nowhere else in the Bombay Presidency.

BHAN, HIND. Rhus cotinus; its leaves are used as a tan.

BHAN-BHWAY, BURM. In Tavoy, used for house posts like Sissoo. (*Qu.* is this the Bhai Bya)?

BHAND. A clan descended from the Bahrupia clan, they are singers, dancers and change their costumes as mimics. Bahrupia is from two hindi words, "Bahu" many, "rupia" countenances.—*Elliot.*

BHAND, HIND. Geranium nodosum.

BHANDAR, a mixture sacred to Kandoba, of powdered turmeric and another substance.

BHANDAR in Long. 83° 10' E and Lat. 27° 33' N.

BHANDAR. A cocoanut tree toddy drawer.

BHAND BHAGTEEAH, HIND. Mimics, actors.

BHANDER. The desert, S. W. of Rajputanah. See Mewar.

BHANDIBAJAN, HIND. Sageretia Brandrethiana.

BHANDUCK in Long. 79° 12' E. and Lat. 20° 11' N.

BHANDUGAON in Long. 75° 41' E. and Lat. 18° 21' N.

BHANG, HIND. PERS. SANSC.

Subjah, Subji,		Banghi..... ...	TAM. TEL.
Sidhi .. .	GUZ. HIND.		

The larger leaves and capsules of the dried hemp plant, Cannabis sativa are usually termed Bhang. They are used by the natives of India for making an intoxicating drink bearing the same name, also for smoking; the powdered leaves are used in infusion and in sweetmeats as an intoxicating drug. It is generally in a liquid form, and is fiercely intoxicating. Its recipe is hemp leaves, washed in water, 3 drams; black pepper, 45 grains; cloves, nutmegs and mace, of each 11½ grains; triturate, the ingredients with eight ounces of water, or milk, or with the juice of water-melon his destructive character, and of Kali. He is a terrific deity, and can only be satisfied by blood. He cut off the fifth head of Brahma, with his thumb nail. According to Major Tod there are two Bhairava, the fair, and the black (Gora and Kala,) who in the field of battle are the standard-bearers of their mother. The sable deity is the most worshipped. The dog is sacred to him, and in sculptures he is commonly represented on one. He is also called Bajranga, or of thunderbolt frame. Mr. Ward, states that, under the name of Bhairava, Siva is regent of Kashi (Benares). All persons dying at Benares are entitled to a place in Siva's heaven ; but if any one violate the laws of the Shaster during his residence, Bhairava grinds him to death. At the celebrated Lat of Bhairva at Benares, the Kan-phata jogi ascetics officiate as priests. A temple is dedicated to Bhyru and his wife Jayeesuri at Loni, about twelve miles from Poona, into which people bitten by snakes are brought, and, hindus believe, invariably recover. Bhyru will not even permit the neem-tree, used as a preservative against the bites of snakes, to grow near the place, as all persons so bitten are under his special care. In the temple of Kylas at Ellora is a beautiful sculpture of him bearing in his hands the damara, the hooded snake, and apparently a richly sculptured sceptre.—*Cole Myth. Hind. p.* 73,

BHAIRAVA-JOAP.. " At some distance to the north of the Jaina temples of Girnar and above them on the verge of the hill, stands a huge insulated rock, the Bhairava joap, or 'Leap of Death,' otherwise styled the Rajamela-vanapathar—the ' desire realizing rock,'—whence hindus have often been tempted by demoniac superstition to throw themselves away in the hope of a happy future. Laying a cocanut on the dizzy verge of this rock, the deluded victim attemps to poise himself upon it and in another instant he is beyond humanity's reach, and his body a prey to the vultures that soar under the lofty cliff. Such suicide has long been forbidden, but only three or four years ago three Kunbi, keeping secret their intentions, ascended and made the fatal leap ; some Rabari had also determined to do the same, but were restrained."

BHAIYACHARA villages owned by people descendants from a common stock. See Bhai, Bhaiad.

BHAJEPOOR, in Long. 80° 53' E. and Lat. 28° 19' N.

BHAJI, HIND. SANS. Greens.

BHAKRA, HIND. Tribulus lanuginosus and T. terrestris.

BHAKRI. A yellow earth used in coarse dyeing at Multan.

BHAKTA OR BHAGAT, a term amongst the Vaishnava, now usually applied to a tan, or any individual more devout than his neighbours. The Bhakta formerly were a sect who worshipped Vishnu as Vasudeva.—*Wilson.* See Bhagavata. Hindu.

BHAKTA. HIND. See Dakshina.

BHAKTA MALA, a work in which is embodied the legendary history of all the most celebrated Bhakta or devotees of the Vaishnava order. It was originally written in a Hindi dialect, by Nabha Ji, about A. D. 1580, but was added to by Narayan Das who probably wrote in the reign of Shah Jehan. This termed the *Mala* was added to in A. D. 1713 by Krishna Das, the additions being named the Tika.—*Wilson.*

BHAKTI in hinduism, signifies a union of implicit faith with incessant devotion. The doctrine of the Bhakta was an important innovation upon the primitive hindu religion. The object of the Vedas, as exhibited in the Vedanta, seems to have been the inculcation of fixed religious duties as a general acknowledgment of the supremacy of the deities or of any deity ; and, beyond that, the necessity of overcoming material impurities, by acts of self-denial and profound meditation ; and so fitting the spiritual part for its return to its original source. This system was diffused throughout the old pagan world. But the fervent adoration of one deity superseded all this necessity, and broke down practice and speculation, moral duties and political distinctions. In the Bhagavat, Krishna is made to declare that to his worshipper, such worship presents whatever he wishes,—paradise-like rations, godhead, &c. and is infinitely more efficacious than any or all observances, than abstraction, than knowledge of the divine nature, than the subjugation of the passions, than the practice of the Yoga, than charity, than virtue, or anything that is deemed most meritorious. An important consequence results from these premises—that as all men are alike capable of feeling the sentiments of faith and devotion, it follows that all castes become by such sentiments equally pure. Amongst the Vantswara sectarians founded by Chaitanya, all persons of all castes are admitted into the sect and all are at liberty to sink their civil differences in the general circulation of mendicant and ascetic devotees in which character they receive food from any hands, and of course eat and live with each other, without regard to former distinctions. In like manner, as followers of one faith, all individuals are equally entitled to the prasad, or food which has been previously presented to the deity and it is probably the distribution of this, annually, at Jaganath, that has given rise to the idea that at this place all castes of hindus eat together.

BHAKULKAIRY in L. 78° 2' E.

be given, according to her worshipper's opinions of her, Durga and Bhavani, are two names of Prakriti the symbol of created nature, and, as Parvati, Kali, Durga, and Bhavani the wife of Siva bears a strong resemblance to the Isis of Egypt, to the Juno of Homer, to Hecate, to the armed Pallas, and to the Lucretian Venus. As Kali, she is the agent for her husband's decisions, she is often depicted with the pasha or string in her hands, for binding and strangling incorrigible offenders. As Durga, or active virtue, she destroyed the Asura. Bhavani, in the form of Parvati is nature personified; in which character she is fabled, in one of the hypotheses of the hindus, to have been the mother of Brahma, Vishnu, and Siva, and to have divided herself and become their *sacti.* The Saiva hindus are worshippers of Siva and his wife Bhavani conjointly, and adore the lingum, and yoni, in the compound type of the god and goddess. Speaking of Bhavani, as distinguished by a variety of names implying nature, and, among others, using that of Sakti, or Sacti, Paolino, in his voyage, gives an account of her as the Magna Mater of the hindus: he says, she changes and transforms herself into a thousand shapes, and appears sometimes as a man and sometimes as a woman. This author observes that on her own forehead, as well as on that of her votaries is painted the yoni, or medhra which is represented by two side strokes, and a red one in the middle. In page 341, he again uses the word Medhra: when describing the marks on the forehead, &c., by which hindus distinguish their sect, he says, that the mark of Devi's sectaries is made of 'three strokes; the lateral, white or yellow, the middle always red. This mark represents the medhra, that is, the womb of Bhavani, from which everything existing was produced: This word medhra is supposed to be a term used in Malabar, similar to yoni. Bhavani and her consort Siva are extensively worshipped in the South of India, have a multitude of small temples, but there is little or no reverence. It would seem as if a Scythic and an Egyptian goddess, with their respective attributes and mixtures of war, love, philosophy, physiology, cosmogony and final judgment had all been amalgamated. As a war goddess, Bhavani is often invoked. Tod tells us that, in the belief of rajputs, the double edged sword, presented by Goruknath, in the forest of the Tiger mount, could with the proper incantation, "sever rocks." It is surmised to be the individual blade which is yet annually worshipped by the sovereign and chiefs on one of the nine days sacred to the god of war; a rite completely Scythic. The genealogists of the family, repeated to him the incantation: "by the preceptor Goruknath, and the great god, Eklinga; by Takyac the serpent, and the sage Harita; by Bhavani (Pallas), strike!"—*Tod's Rajasthan, Vol. I. p.* 226. *Cole. Myth. Hind. p.* 96. *Moor. Hindoo Pantheon. Sir William Jones. Paolino's voyage.* See Aparajita, Bhavani, Bhawani Chandica, Devi; Durga, Hooli; Kali; Osiris; Parvati, Prakriti, Sacti; Sects, Siva.

BHAWULPORE STATE skirts British territory for about 300 miles. Its territory is partly under cultivation and partly desert. The cultivated tract (*i. e.* exclusive of the desert portion) lies along the left banks of the Sutlej, Chenab and Indus, successively, for about 300 miles and is on an average eight miles in breadth. The area is 2,483 square miles of which 702 are uncultivable, but only 1,111 square miles are under cultivation, of which 537 square miles or 3,43,702 acres are irrigated by inundation canals, 168 square miles by wells, and 406 square miles by inundation from the river. There is no rain cultivation. The population is estimated at 364,502 souls, of whom 10,000 reside in forts and villages in the desert, the numbers to the square miles in the fertile portion being 147. Bhawulpur state is inhabited by the Daoodputra race, the Jut, and hindus. The Daoodputra claim to be of Arabian extraction and the reigning family it is said, trace their descent to Harun-al-Rashid the caliph of Bagdad. When in Sind they formed two sections, the Kalora and Daoodputra. The Kalora expelled the Daoodputra, who settled in Bhawulpur, Bhawul Khan was the most prosperous ruler. The Bhawulpur nawabs have been grossly licentious, and a vein of insanity has run through all their family. The country became independent during the dismemberment of the Dourani empire which followed the expulsion of shah Soojah from Cabul. The first British treaty with Bhawulpore was in 1833. The intercourse with the State has been chiefly about the navigation of the Indus. The British bound themselves not to interfere with the internal administration. In 1838, they pushed on a little further. They stipulated that the Nawab should act in subordinate co-operation with the British Government and acknowledge its supremacy. They prohibited him performing any alliances without their consent, and enjoined upon him to submit all disputes to their arbitration. He bound himself, moreover, to furnish troops at the requisition of the British Government, according to his means. With all this the State retained its independence, and does so still. The Nawab was true to his engagements, and afforded them valuable aid in 1847-48 in the operations against Mooltan. From 1850 the seeds of internal discord began to be sown. The Nawab

Bhawul Khan, with the audacious folly common to eastern princes determined to make his third son, Sadik Yar, Mahomed Sadik Khan, his heir, to the exclusion of the eldest son. The British Government disapproved of this whim of the Nabob's, but allowed him to carry it out. In a very short time the elder son Futteh Khan with the aid of the Daoodputras succeeded in deposing the younger and seating himself upon the ancestral musnud. The British Government recognised him, and he on his part accepted the engagements entered into by his father. The ex-Nawab found an asylum in Lahore and received a grant of sixteen hundred rupees per month for his retinue, jewels, and private expenses. Not a year passed before his restless spirit led him again into trouble. He would not relinquish the idea of ruling Bahawulpore. This dangerous design induced the Government to place him under strict surveillance and to reduce his allowance by one-half. The other half was allowed to accumulate for him till it should seem proper to make it over to him or his heirs. This turbulent, ambitious prince died in the Fort of Lahore. Nabob Fattah Khan died 3rd October 1855, and was succeeded by his eldest son, Rahim Yar Khan, on whose demise in 1866, Bhawulpore, was assumed by the British during the minority of its chief. Bhawulpore town is built on the banks of the river Gharra. Multan, Bahawulpur, and Lahore, have long been celebrated for silks; Bahawulpur, especially, for its figured and fancy silks, and Lahore for striped and plain silk pieces. Pattiala, Gurdaspur, Shapur, Peshawur, Ludhiana and Amritsar, also manufacture silks.—*Aitchison. Powell. Newspapers.*

BHA-WOON, Burm. A tree of Moulmein, converted into planks for building.—*Cal. Cat. Ex.* 1862.

BHED MANGI, Hind. Cyamopsis psoraloides.

BHEEL. See Bhil.

BHEEL, in L. 73° 14' E. and L. 22° 19' N.

BHEELALAH. A tribe of Central India claim a descent, by their father, from the Rajputs, their mother being of the Bheel tribe.—*Malcolm's Central India, Vol. I. p.* 550.

BHEELAZZA, in L. 73° 41' E. and L. 26° 5' N.

BHEER. Three towns in India, one in L. 75° 49' E. and L. 19° 2' N., a second in L. 75° 0' E. and L. 26° 24' N., a third in L. 73° 20' E. and L. 34° 19' N.

BHEEM. A prince of Mewar who was celebrated for activity, and could, while his steed was urged to its speed, disengage and suspend himself by the arms from the bough of a tree; to one of these experiments, however, he owed his death as he dislocated his spine in a feat of strength.—*Tod's Rajasthan, Vol. I p.* 392.

BHEEMAH. A river of the Mahratta country which joins the Kistna to the east of Zorapoor. It is often confined to a narrow bed, as at Korygaon where it is crossed in the rains by a flying bridge.

BHEEMA-TERAI. The valley of the Bheemah river, famed for its breed of hardy poneys or small horses. The breed is known in Northern India, as the Beemrathali. Mawa, the horse which bore Holcar in many a desperate strife, was of this breed. The head is a model, exhibiting the highest quality of blood: ears small and pointed, eyes full and protruding, and a mouth that could drink out of a tea-cup. This is the type of the Bheemah t'herra breed. One of them, "Cupid" long in our possession, was a perfect model.

BHEKEL, Hind. Prinsepia utilis.

BHEKKAR, Hind. Adhatoda vasica.

BHEKLING, also Bhekul, Hindi of Kanawar, Prinsepia utilis.

BHEELA, Hind. Semecarpus anacardium, Marking nut.

BHEL, Hind. Andromeda ovalifolia.

BHELA, Sans. Duk. Hind Semecarpus anacardium.

BHENDEE, Tam. also BENDAY KAI, Tam. Pods of Abelmoschus esculentus. The capsules, when green, are boiled whole and eaten or sliced and put into soup or curries; the inside is filled with albumen, but, when dressed, not unpleasant. The seed is sometimes laid upon toast with butter, pepper and salt. Another species, A. moschatus, has a smaller capsule; the seeds when rubbed between the fingers have a strong scent of musk; the Arabs flavour their coffee with them.

BHENG, Hind. Nelumbium speciosum.

BHENLA? BHEULA, Mar. Pterocarpus marsupium.

BHER, Hind. Mahr. also, BHOR, Mar. Zizyphus jujuba.

BHERANDA, Beng. Castor oil plant, Ricinus communis.

BHERBAND, Hind. Argemone mexicana.

BHERI, Tel. also Béri, Leonotis nepetæfolia.—*R. Br.*

BHERLI, Mahr. Caryota urens.

BHERRA, Hind. Also bharra, wheat and grain sown together.

BHESNA. A river in Purnea.

BHET, Hind. Also bhent, land alongside a river, subject to periodical inundation.

BHEWNDI. A district in the vicinity of Bombay, in which reside many christianized Koli. See Kols.

BHI, Hind. BIHI, Hind. Cydonia vulgaris, quince.

BHIDAIRA. The root of a small bush found in Ajmeer, and brought from Delhi, has little taste: used in medicine; women take it during pregnancy, believing it can cause the womb to rise out of the pelvis when tardy in so doing.—*Gen. Med. Top. p.* 129.

BHIHAR, HIND. The name of a tribe which, according to local tradition appears to have been one of the aboriginal races of Rohilcund and the Upper Doab. They were expelled from Nerowlee Buhjoee and the neighbouring districts by the Bir-Gujar Rajputs. In the Doab they are commonly called Beimhar and in Rohilcund Bihar.—*Elliot, p.* 68. *Wilson's Glossary.*

BHIKH, HIND. Alms: begging. Bhikhshu or Bhikkari, a beggar. Three religious garments, a begging pot, razor, sewing needle, waistband and bathing cloth, are peculiar to the Bhikshu, or hindu mendicant ascetic.

BHIKSHUNI. A woman who follows the life of a buddhist devotee. See Buddha, Sakya Muni.

BHIL. One of the races, that early occupied India. According to Malcolm, in a sanscrit vocabulary at least seven hundred years old, the term Bheel occurs to denote a particular race of barbarians subsisting chiefly on plunder, and found more particularly in the mountainous woody tract of the Nerbudda. But there is still earlier mention of them in the Mahabharat, in which the Bheels are not only minutely described, but a long fabulous account given of their origin. The Caba race now almost extinct, was famed, even in the days of Krishna, as the savage inhabitants of Saurashtra. It was a forester Bhil who mortally wounded Krishna having mistaken him for a deer. When the Bhil was expressing his contrition for the unintentional act, he was forgiven, with the remark, that it was only retributive justice, as, "in a former birth," as the godlike Rama, Krishna had slain him. Thus Rama appears as the subjugator and civilizer of these indigenous tribes, of whom the Caba are described as plundering Krishna's family after his decease. The Bhil are one of the many tribes who entered India prior to the Aryan hindu and the rajput, and been forced by the later emigrants into the forest tracts. There are many such tribes in Central India, the Bheel, Kol, Gond, Meena, Mera, Choоar, Serya, Sarja, Ahir, and Goojur, many of them dwelling in the forest tracts of the Son, Nerbudda and Mahanuddy, the mountains of Sargooja, and the lesser Nagpore, many of whom are still but little removed from savage life, and whose dialects are as various as their manners. These are content to be called the 'sons of the earth,' or 'children of the forest,' while their conquerors, the Rajpoots, arrogate celestial descent. The census shows that the Indian aborigines amongst whom are the Bhil, still number twelve millions or one-twelfth of the population of India.

	Census.		Number.
Sikhs.	1868		1,129,319
Mahomedans.			
Punjab	1868	9,335,65	
N. W. Provinces	1865	4,105,[illegible]	
Central Provinces	1866	237,962	
Berar	1867	154,951	
Madras	1867	1,502,134	
British Burmah	1867	38,601	
Mysore	Estimate	172,255	
Coorg	"	3,818	
Sindh	Old Enumeration	1,354,781	
Bombay in 12 out of 21 districts		779,264	
" Island	1864	145,880	
Calcutta	1866	113,059	
Dacca Division		2,493,174	
The rest of Bengal and Bombay, and Oudh	Estimate	5,500,000	24,936,237
Non-Aryans.			
Madras (not speaking Tamil, Telugu, Canarese nor Malayalum—Dr. Caldwell)		6,50,000	
Central Provinces		1,995,663	
South Bengal		4,000,000	
North-East Bengal	(say)	1,000,000	
Karen		402,117	
Khyen and Yabang		51,562	
Rest of India	(say)	4,000,000	12,099,342

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Excluding the feudatory states, the following may be roughly accepted as the relative proportions of creeds and races in India:—

Asiatic Christians.	1,100,000
Buddhists .	3,000,000
Aborigines .	12,000,000
Mahomedans .	25,000,000
Hindoos	110,000,000

It is to the non-Aryan Bhils and similar races to whom such terms as aborigines and autochthones are applied, Elphinstone describing these tribes says of them in his day, the hills and forests of Central India are inhabited by people many of whom differ widely from those who occupy the plains. They are small and black, slender but active with peculiar features and a quick and restless eye. They wear few clothes, are armed with bows and arrows, make open profession of plunder and, unless the government is strong are always at war with all their neighbours. When invaded, they conduct their operations with secrecy and celerity and shower their arrows from rocks and thickets whence they can escape before they can be attacked and often before they can be seen. They live in scattered and sometimes moveable hamlets, are divided into small communities and allow great power to their chiefs. They subsist on the produce of their own imperfect cultivation and on what they obtain by exchanges or plunder from the plains. They occasionally kill game, but do not depend on that for support. In many parts, the berries of the Mahwa tree form an important article of their food. Besides one or two of the Hindu gods they have many of their own, who dispense particular bles- [illegible] calamities. The one who presides [illegible] pox is, in most places, looked on [illegible] awe. The early history of all [illegible] tribes is uncertain. In the Dekhan, [illegible] were in their present state at the time of [illegible] Hindu invasion and probably some of them [illegible] allies of Rama whom tradition and [illegible] have turned into a nation of monkeys. [illegible] whole country was then a forest: and the [illegible] tribes are in those portions of it which [illegible] not yet been brought into cultivation. The great tract of forest called Gondwana lying between the rich countries of Berar and Cuttack, and occasionally broken in upon by patches of cultivation, gives a clear idea of the original states of the Dekhan and the progress of its improvement. In Hindustan they may be the unsubdued part of the nation from whom the servile class was formed, or if it be true that even there their language is mixed with Tamil, they may possibly be the remains of some aboriginal people anterior even to those conquered by the hindus. There are other tribes of mountaineers in the north-eastern hills, and the lower branches of the Himalaya, but they all differ widely from those above described, and partake more of the features and appearance of the nations between them and China. No separate mention is made of the mountain tribes by the Greeks, but Pliny more than once speaks of such communities.

They sacrifice fowls, pour libations before eating, are guided by inspired magicians, and not by priests, bury their dead and have some ceremonies on the birth of children, marriages and funerals. In common they are all much addicted to spirituous liquors, and most of them kill and eat oxen. Their great abode is the Vindya mountains which run east and west from the Ganges to Guzerat, and the broad tract of forest which extends north and south, from the neighbourhood of Allahabad to the latitude of Masulipatam and with interruptions, almost to Cape Comorin. In some places the forest has been encroached on by cultivation and the inhabitants have remained in the plains as village watchmen, hunters and other trades suited to their habits. In a few places their devastations have restored the clear country to the forest and the remains of villages are seen among the haunts of wild beasts. The points of resemblance above mentioned lead to the opinion that all these rude tribes form one section of the human family; but, they differ in other particulars and each has a separate name, so that by comparing their languages, where t tain a distinct language, that we can h see the question of their identity settled. race at Bagalpur, are called Paharia or m taineers under the name of Kol, occupy a g tract of wild country in the W. of Bengal a Bahar, and extend into the Vindya mountains near Mirzapoor. In the adjoining part of the Vindya range and in the centre and south of the great forest are Gond: further west, in the Vindya range they are the Bhil; and in all the western hills Koli.

The Bhil clans, are now in a state of great moral transition; but those of Khandesh nearly to the middle of the 19th Century continued to sally from their fastnesses and committed great ravages upon the villages of the plains. When measures were taken by the Bombay Government in 1818 to reclaim the Bhils of Khandeish, Sir John Malcolm considered that success would only be partial unless corresponding measures were adopted for reclaiming the Bhils of Burwanee, and this was given effect to. The Bhils says *Latham* occupy the petty states of Dunduka, Rompur and Gogo—between the Mahi and the Nerbudda and Nerbudda and Tapti, and Rajpipla N. E. of Surat, and as a rule, Kandesh is Bhil.

Fire-arms says Tod (*Travels, p.* 34) are only used by the chiefs and headmen; the national weapon being the *kumpta,* or bamboo bow, having the bowstring (*chulla*) from a thin slip of its elastic bark. Each quiver contains sixty barbed arrows, a yard long.' Although they claim descent from every race of Rajpoot, and prefix the tribe, as Chohan Bhil, Gehlote Bhil, Pramar Bhil, &c., &c., their origin is best evinced in the gods they worship and their prejudices as to food. They will eat of nothing white in colour, as a white sheep or goat; and their grand abjuration is, by the white ram!" These prejudices, however, belong only to those who affect to call themselves *Oojla*, or pure Bhils. Their ancient position is well illustrated by the circumstance of their claiming the right to instal Rajput princes. When Bappa fled were two Bhils the companions of his flight, one of Oondree, in the valley of the present capital; the other of Solanki descent, from Oguna Panora, in the western wilds. Their names, Baleo and Dewa, have been handed down with that of Bappa, and the former had the honour of drawing the teeka of sovereignty with his own blood on the forehead of the prince, on the occasion of his taking the crown from the Mori. The descendants of Baleo of Oguna and the Oondree Bhil still claim the privilege of performing the teeka on the inauguration of the descendants of Bappa.

Oguna Panera says Colonel Tod, is the sole spot in India which enjoys a state of natural freedom. Attached to no state, having no foreign communications, living under its own patriarchal head, its chief, with the title of Rana, whom one thousand hamlets scattered over the forest-crowned vallies obey, can, if requisite, appear at the head of five thousand bows." He is a bhoomia Bhil of mixed blood, from the Solanki rajpoot, on the old stock of pure (oojla) Bhil, of Mewar. Besides making the teeka of blood from an incision in the thumb, the Oguna chief takes the prince by the arm and seats him on the throne while the Oondree Bhil holds the salver of spices and sacred grains of rice used in making the teeka. The Bhil, from ancient times, use the fore and middle fingers of their right hand to the string of their bow holding the arrow between the two fingers. A thorough study, says Col. Tod, of the uncivilized tribes of India, the Bhil, Koli, Gond, Meena, Mair, would disclose important links in the physical history of man. There is not a greater difference between the squat, flat-nosed, Tartarian-visaged Esquimaux, and the ancient noble Mohican savage, than between the Bhil of Mewar and the Kol of Sirgoojur; nor are the habits of the dweller on the verge of the Polar sea more distinct from those of the migratory races of the Missouri, than are those of the forest indigenes of India from the more locomotive rajpoot. Their very names imply this principle: Vanaputra, 'child of the forest;' Mairote, 'born of the mountain,'—Gond, apparently a compound of Gopa and Indra, 'Lord of the cave:' Pal-Indra, 'Lord of the pass.' In like manner, Kol, signifying 'mountaineer,' from Ko, 'a mountain,' which, though less commonly used than the Sanscrit word Gir, is beyond a doubt a primitive root with the Indo-Scythic nation. With the great Bhil family, he somewhat fancifully continues. I would not hesitate to class the Sairea, inhabiting the mountains that separate Malwa and Harouti, and all those complicated ranges which running from the verge of the table-land of Malwa, through Chanderi and Nurwur, terminate, some branches in Gohud, while others merge into the masses of Bundelcund, anciently peopled by the tribe of Sarja, now extinct, but in all probability the Sairea of Central India. Amongst the thirty-six royal tribes of Rajpoots, one is called the Sari-aspa, contracted Saria, of whom we have inscriptions of a very remote date, indicative of their consequence amongst the ancient races of India. Whether this degraded Saria tribe may be descended illegitimately from these, it is useless to enquire. The Aspa or Aswa race is decidedly of Indo-Scythic origin, the first (aspa) being the Persian, the latter (aswa) the Sanscrit term, for 'horse,' and were the Sairea illegitimately descended from them, it might account for the introduction of the horse into their ceremonies. I have, he adds, elsewhere remarked the habit, amongst the old tribes of Central Asia, of assuming the names of quadrupeds. Thus, besides the Aspa or 'horse,' we have the Noomri or 'foxes,' a great branch of the Getæ or Jit of Transoxiana, and the Varaha, or 'hog,' of Mooltan and the Upper Indus. But the habit of distinguishing families by epithets derived from objects in the animal or vegetable creation, has prevailed in every land, and many a name, which receives our homage from blending phonetic dignity with historical recollections, traces its origin to some humble and often ludicrous incident; as that watch-word of chivalry, Plantagenet, derived from the lowly broom. Besides the horse, fox, and hog tribes of the Indus and Oxus, we have the hare, Seesodia, properly Sussodia, the Cuchwaha, with many others.—*Wheeler's Hist. of India, p.* 85. *Elphinstone's History of India, p.* 366-367. *Malcolm's Central India, Vol. I. p.* 518. *Coleman. Elliot. Wilson's Glossary. Tod's Travels, pp.* 34-39. *Tod's Rajasthan, Vol. II. p.* 217. *Treaties, Engagements and Sunnuds, Vol. IV. p.* 454. *Latham. Wheeler's History of India, p.* 85. *Friend of India.* See Chouhone. India, pp. 313-326-327. Korambar. Kol. p. 536-7. Krishna; Kalmuck.

BHILADAR, HIND. Semecarpus anacardium.

BHILAWA.

Belader...	...ARAB.	Bhalataka...	...SANS.
Bhilawun...	...HIND.	Bhela...	...DUK.

The nut of the Semecarpus anacardium, common throughout India: the acrid viscid oil which the nut contains, is used as an escharotic and counter-irritant: it leaves a mark for life: it creates great pain and often very intractable sores, but natives, unacquainted with the blisters of Europe, have a greater dread of them than of the Bhilawa. It is given in medicine in small doses, and is considered a stimulant and narcotic; is much used in the mesalih of elephants; given in large doses, it renders these animals furious, is considered good in venereal diseases, especially of women. The farina of the anthers of the flowers, is very narcotic and irritating; people of a peculiar habit accidentally sleeping under the tree when in blossom, or even going near the flowers, are stupified and have their faces and limbs swollen: and the use of the Bhilawa as a counter-irritant very frequently causes the whole body and face to swell with erythematous inflammation and much constitutional disturbance. The mature corolla and the receptacle are fleshy and sweetish sour, and are eaten roasted or as a vegetable, and are deemed, along with cocoanut and chironji, aphrodisiac. The Bhilawa nut is worn on the arm, as a charm, in guinea worm.—*Gen. Med. Top. p.* 127.

BHILAWA-KA-TEL, HIND. Marking nut oil

BHILIUNG. A river tributary to the Ganges, in Lat. 30° 46′ N. Long 78° 55′ E. runs S. W., into the Bhagarutti, after a length of 50 miles. It is between 60 and 70 feet wide in the beginning ofMay, 5 miles from its mouth.

BHILSA. A town in India, in L. 77 ° 54′ E. and L. 23 ° 37′ N. The brothers Schlagentweit say it is in L. 23 ° 30′ N. and L. 77 ° 45′ E. It is in Malwa, 190 miles south of Gwalior and at the railway is 1,406 feet above the sea. It is famous for the buddhist topes at Andher, a little village 10½ miles S. of Bhilsa and five miles W. of Bhojpur. See Bhojpur; Buddha; Inscriptions, p. 380; Karli; Lat. Sanchi; Topes; Wasso.

BHILU, BURM. Amongst the Burmese buddhists, a spirit, a ghost.

BHILWAN. A district in Central India, taking its name from the Bhil race. See India, p. 327.

BHILWARA, same as Bhilwan.

BHIMA. The second of the five Pandava brothers. He was of great bodily strength and ferocious courage. He closed the great Mahabarata war by following Duryodhana into a pond and killing him with a mace.—*Taylor.* See Bharata; India, p. 324, Inscriptions, pp. 376. 391. Indra, Mahabarata. Pandu. Polyandry, p. 107.

BHIMAL, HIND. Grewia, species, in Kamaon, &c.

BHIMA-RATRI. The 7th night of the 7th month of the 77th year of a man's age, lunar reckoning, after which a hindu is exempted from all instituted observances, it being considered the end of his natural life. He would then be in his 75 solar year.—*Wilson.*

BHIMA-CHANDI, SANS. From Bhima, terrific, and chandi, furious.—*Ward.*

BHIMBUR. A town and district of the Panjab. See Sikh.

BHIM-SEN'S GADA or Club. An ancient stone pillar at Allahabad, which has four inscriptions engraved on its surface.

BHIN AUNLAH, DUK. Phyllanthus niruri.—*Linn.*

BHINDA TORI, ALSO BHINDI. HIND. Abelmoschus esculentus.

BHIND in Long. 78 ° 41′ E. and Lat. 26° 32′ N.

BHIRBUTI, HIND. A beautiful scarlet colored insect resembling a piece of scarlet velvet. They are collected during the rains. They yield an oil, and have a use similar to the Cantharis, as a blister and irritant.—*Powell.* See Entomology Raughan.

BHIRMI-SUGAN. Leaves of a small plant brought to Ajmere from Delhi employed in making scents.—*Gen. Med. Top. p.* 129.

BHIRMI-VIDAYA. Leaves of a climber from mount Aboo, very stimulating, and, in Ajmere, used in the "seet," a disease simulating catalepsy.—*Gen. Med. Top. p.* 129.

BHISHMA. A surname given to Santanava, for his dreadful vow of celibacy. Bhishma was fourth in descent from Bharata. See Bharata.

BHISTEE, ANGLO. HIND. Properly bahishti a water carrier, who conveys water in a skin slung from his shoulders, resting over his loins.

BHISTU DHARI. A sect of the Dadu Panthi.

BHITARI LAT. A buddhist pillar at Ghazipur, has an inscription on it in Sanskrit, not pure nor easily intelligible. This inscription, like one of Allahabad, is intruded on a Buddhist column, and is subsequent to it, as it carries on the Gupta family from Samudra to the boy Mahendra. Chandra Gupta 2nd, and Kumara Gupta followed the Vishnu worship, but Skandra Gupta attached himself to the opposite doctrines, now so prevalent, of the mysterious and sanguinary Tantra. Skanda Gupta was dispossessed of his kingdom, for a time, by a treacherous minister. This was the case when the Chinese traveller, Huian-theang reached Behar, in the seventh century, and he may refer to the event mentioned in the inscription; but he calls the king by a name construed to be Siladitya, and no king of this name reigned in Behar; nor nearer than in Gujerat. The Gupta, probably, succeeded the Buddhist kings of Behar. The absence of the insertion of the Tantra in the Allahabad inscription, and their insertion here, would seem to indicate the period of the origin of this worship. The language of inscription is not pure Sanskrit, nor easily intelligible. The character used is the same as Allahabad, No. 2, or Kanouj Nagari, with numerous mis-spellings. The date is subsequent to Allahabad, No. 2; and, Dr. Mill says, not earlier than Charlemagne in Europe, A. D. 800, if the Gupta be those of the Purana. Moreover, the mention of the sectarial worship of the Bhagavata and Tantra makes the date comparatively modern. Indra, Varuna, Yama, Krishna, Siva, Sita, the Tantra, Devaki, the mother of Krishna, Rudra, are mentioned and loads of forest timber are collected for the completion of sacrifices for Indra, Varuna, and Yama only; and not for Siva or Vishnu. These last, therefore, may have had honour, but not sacrifice. The kings or princes mentioned are the great king, Gupta. His son, do., Ghatot Kacha : do. King of kings, Chandra Gupta, do. King of kings, Samudra Gupta, do. Chandra Gupta 2nd : do. Cumara Gupta, do. Skanda Gupta, a minor, Mahendra Gupta ?—*Vol. V. p.* 661. See Lat.

BHOGA, S. Food offered to idols. See Prasadh.

BHOGA PANEE. A river near Mophlung in Chirapunji.

BHOGRA, Hind. Cleome pentaphylla, Mar. Casearia elliptica.

BHOI MUNG, Hind. Fruit of Arachis hypogæa : Ground nuts.

BHOI-PHUL, also Bhonphor, Hind. Phelipæa calotropidis.

BHOIRAVA, Sans. The fear-exciting, from Bhaya, fear. See Bharava.

BHOIRAVI, Sans. The wife of Bhoirava.

BHOIRAVI CHAKRA. Sans. Bhoiravee, a name of Doorga, and chakra signifies a circle or wheel. See Bhairava.

BHOI-WANLU also called Ur-Bhoiwanlu, Telugu. Mercenary soldiers in Southern India, who serve native sovereigns. They are never found in the ranks of the British army. There are a few of them in every large town in the South.

BHOJPOOR in L. 78° 49′ E. and L. 28° 57′ N. is a ruined town where remains of buddhist topes stand on the southern end of a low range of hills, 6 miles S. S. E of Bhilsa and 7 miles E. S. E. of Sanchi.—*Cunningham.* See Bhilsa ; Buddha ; Topes.

BHOJNAM, Tel., Food.

BHOJ RAJ. A name of several kings of India.

BHOJ. The last of the great Pramara race of hindus who ruled over Ujein and Dhar. He was a great patron of learning. Bhoja Pramara is a very celebrated name in the annals of India, but there appear to have been many of this name or title. The derivation of the word may be traced to the root "bhuj" to enjoy, and in that sense it has been used by the brahmans from the remotest antiquity.

BHOJPATRA, Hind. The birch and bark of the Betula bhojpatra, Betula tartarica.

BHOKUR, Hind. Cordia latifolia.—*Roxb.*

BHOLAN. See Bolan.

B'HOLA NAT'H or the 'Simple God,' is one of the epithets of Siva, whose want of reflection is so great, that he would give away his own divinity if asked.

BHOLSERI, Dukh. Mimusops elengi. —*Linn.*

BHOM, Hind. Literally, land, is an ancestral inheritance, a patrimony.

BHOMIA, H. From bhom, land, a landed proprietor, in Rajputanah, the allodial proprietor of Mewar, offshoots of the earliest princes. The term bapota implies the inheritance or patrimony, its holder, if a military vassal, is called 'Bhomia,' meaning one actually identified with the soil (bhom). It is the mahomedan term wuttun-dar, or meeras-dar, is the Caniatchi of Malabar, and is the Bhomia of Rajasthan. The Bhomia is vested with the rights of the crown, in its share of the bhog or rent. But when their own land is in the predicament called 'gulthas,' or reversions from lapses to the commune, he is 'seised' in all the rights of the former proprietor ; or by internal arrangements, they can convey such right by cession of the commune. The bhom is exempt from the jureeb or measuring rod ; it is never assessed, and his only sign of allegiance is a quit-rent, in most cases triennial, and the tax of khur-lakur, a war imposition, now commuted for money. These allodial tenants, are the yeomen of Rajasthan, and as in the districts of Komulmer and Mandelgurh, constitute the landwehr, or local militia, the Rajpoot vaunts his aristocratic distinction derived from the land ; and opposes the title of 'Bhomia Raj,' or government of the soil, to the 'Bania Raj,' or commercial government, which he affixes as an epithet of contempt to Jeipoor ; where "wealth accumulates and men decay." 'Bhom rakhwali or land, [in return for] 'preservation,' is one kind of Bhom, the crown itself holds 'bhom rekwali' on its own fiscal demesnes consisting of small portions in each village. In S. 1782, the turbulent Bhomia on the western frontiers were checked by the Rajput chief on their borders and the Sindil the Deora, the Bala, the Bora, the Balecha and the Soda were then compelled to servitude. The ancient clans, prior to SangaRana, had ceased, on the rising greatness of the subsequent new division of clans, to hold the higher grades of rank ; and had, in fact, merged into the general military landed proprietors of the country under the term 'bhoomia,' a name, importing absolute identity with the soil : bhoom meaning 'land.' These Bhoomia, the scions of the earliest princes, are to be met with in various parts of Mewar ; though only in those of high antiquity, where they were defended from oppression by the rocks and wilds in which they obtained a footing ; as in Komulmir, the wilds of Chuppun, or plains of Mandelgurh, long under the kings, and where their agricultural pursuits maintained them. Their clannish appellations, Kombawut, Loonawut, and Ranawut, distinctly shew from what stem and when they branched off ; and as they ceased to be of sufficient importance to visit the court on the new and continually extending ramifications, they took to the plough. But while they disdained not to derive a subsistence from [illegible] bouring as husbandmen, they never abandoned their arms ; and the Bhoomia, amid the crags of the alpine Aravalli where he pastures his cattle or cultivates his fields, preserves the erect mien and proud spirit of his ancestors, with more tractability, and less arrogance and folly, than his more courtly but now widely separated brethren. They form a considerable body in many districts, armed with matchlock, sword and shield. In Mandelgurh, when their own interests and the prince's unite, four thousand Bhoomia could be collected. They held and maintained without support the important fortress of that district, for their prince during half a century of turmoil.—*Tod's Rajasthan, Vol. I. pp.* 169, 498. See Rajput.

BHOOIN-BAR. A cultivating hindu tribe who say they were originally brahmans settled in the districts of Goruckpur, Azimgarh and Benares. They style themselves Thakur, and append Sandal Gautam : Dikshit : Upadhayaya, Pande, Misr, Tonwar, Tewari—*Wilson.*

BHOOIN KOOMRA, Beng. and Hind. Batatas paniculata.

BHOOMI-NIM, Beng. Bonnaya serrata; Serrated hedge hyssop.

BHONGSHO—? An ordinary brahman.

BHONSLA RAJAS OF NAGPUR commenced in 1734, when Raghoji Bhonsla was nominated Sena Sahib Suba or General of the Mahratta confederacy. Appa Sahib was the ruler of the Mahratta state of Nagpore, who surrendered to Sir John Malcolm, in 1818. He succeeded to the office of Peshwa, by strangling Parsaji, an idiot. His real name was not Appah Sahib, but Mudaji. He afterwards on the 12th May 1818, fled from the place allotted to him, to the Sikh territories, but he ultimately died, in 1840, almost forgotten, at Judhpur. The family became extinct during the Administration of Lord Dalhousie, on the demise of Goozur, grandson of Raghoji, who, in 1818, had been seated on the throne when Mudaji, (Appa Sahib) was deposed.

BHOO, Beng. Contraction of Bhoom, the earth, hence,

Bhoo-ada, Beng. Scarlet garland flowers, Hedychium angustifolium.

Bhooin-Champa, Beng. Round rooted Galanga, Kæmpferia rotunda.

Bhooin-Dalim, Beng. Careya herbacea.

Bhooin-Doomoor, Beng. Ficus repens.

Bhooin-Jam, Beng. Premna herbacea.

Bhooin-Kamri, Beng. Ipomœa Gangetica.

Bhooin-Koomra, Beng. and Hind. Batatas paniculata, also Beng. Trichosanthes cordata.

Bhooin-Okra, Beng. Creeping vervain, Zapania nodiflora.

Bhooin-Pat, Beng. Creeping Dentella, Dentella repens.

Bhui-Sing, Guz. Arachis hypogæa, ground nut.

BHOOJH or BHUJ, in L. 23° 17' L. 69° 40' E. capital of the province of Cutch. The Dak bangalow is 281 feet above the sea, and the hill fort is 678 feet by trigonometric measurement. Bhuj is the chief town of Cutch, and is built on a plain at the foot of a fortified hill on which there is a snake temple. It has manufactures in gold and silver. It was taken by Sir W. Keir's Army on the 23rd March 1819. A large number of articles in gold and silver are annually made at Bhooj, principally for Europeans. Goolabdana or rose-water sprinklers, are, however, manufactured for native use. The silver and gold used is very nearly pure. The charge is at the rate of 8 annas per tola weight. A stone procured from the Hubba hills is polished at Bhooj and is also used as a substitute for marble in the decoration of temples. See Cutch. Hindu, Kattywar.

BHOO-KAILASU, Sans. From bhoo the earth, and Kailasu, the name of a mountain.

BHOOKHA MATA. In a temple at Oudeypore is a picture so called, personifying famine. Her necklace, like that of her lord Siva or Maha-deo, is of skulls. Two persons are represented lying near who have died of famine, and a beast of prey is approaching to devour them.

BHOO-LOKA, Sans. from bhoo, earth, and loka, a world. The earth.

BHOORJAPATTRA, Beng. Indian Birch, Betula bhojpatra.

BHORA, Beng. Mangrove. Rhizophora mangli. R. mucronata.

BHORA. A river in Baitool.

BHORALEE. a river of Gowhatty.

BHOR GHAT, in Lat. 18° 44' N. 73° 22' E. in the Dekhan, the principal pass on the route from Bombay to Puna. It has been formed into part of the Great Peninsular Railway. The top of the ghat is 1,798 feet above the sea. See Railway.

BHOOSA, Hind. Bran either of wheat or rice : it is often mixed with chopped straw and given as food for cattle.

BHOOT, Beng, also bhoota, Hind. Zea mays.

BHOOTAN. In Kurdistan, through which the river Cheba flows.

BHOTAN on the N E. of British India, is situated between Lat. 26° 30' and 28° N. and 88° 45' to 92° 25' E. and occupies from the southern declivities of the great central ridge of the Himalaya mountains to the level ground in front of that portion of their inferior chain which constitutes the natural northern boundary of the Assam valley eastwards from Sikkim to where the Brahmaputra passes through the mountains. Bhootan is one of the long narrow states lying upon the southern slopes of the Himalayas; and consists of a number of rough transverse chains of hills at right angles to the parent range which forms the backbone of Asia. Between the ridges are precipitous valleys, at the bottom of each of which run a mountain stream. After passing through some of the most romantic scenery of the world, with cascades that outshine the best of Europe, at every few miles of their course, these streams find their way to the ghaut. The branch river falls 17,000 feet in little more than fifty miles. The River Pachoo rises on the upper slopes of the gigantic Chinnulari, which tops the clouds at a height of 28,000 feet, and, before its stream is 100 miles in length, has descended to an ordinary altitude of 3,700 feet, it must be denominated a country of mountains, to give any idea of the character of the surface of the district. Its northern boundary is at an average elevation of 25,000 feet while its southern boundary, about 75 miles nearer the equator enjoys an altitude of about 5,000 feet, so that there is an average fall per mile of upwards of 250 feet. It is 220 miles long with an average breadth of about 90 miles and is mostly rugged with lofty mountains. The people styled Bhooteah are a colonial branch of the Thibetans, who have acquired independence. The real capital is *Tassisudon* which is the official residence of both the Deb and Dhurm Raja. The Dharm Raj resides at Poonakho. But neither of these Rajas has anything like general authority. The kingdom is divided into a number of districts, each governed by a "Soubeh," whose residences greatly resemble the castles of the greater barons during the active existence of the feudal system. These castles in fact are, as far as we have been able to learn, peculiar to Bhootan. They are not "droogs" like those at Nundidroog, Gingee, and other places in Southern India, but real baronial residences with ditch, wall, and battlements, like those still existing in England and on the banks of the Rhine. The chief of these castles, each of which is the capital of a soubahship, are Dalimcote, Durbee, Benkar Sengloong, Wandipoor, and Teelagong. The country has a spiritual head, the Dhurm Raj and a political ruler the Deb-raj, elected for three years, but for the last fifty years, Bhotan has been in a state of civil war, caused by the strife of the Penlows of eastern and western Bhotan, and the Deb-Rajahs have been mere puppets. According to Aitcheson, (*Vol. I. pages* 105-142) in Bhootan the political Government is conducted by a central authority the Deb-Raj, at Tassisudon for the summer and Poonakha for the winter quarters. There is also a Dhurm Raj, also the Tongso Pillo or Penlow in the Eastern Doars, the Paro Pillo in the Western Doars, each Doar being also under a separate soubah or governor.

According to Mr. Aitcheson the districts of Bhootan between the hills and the British frontier are known as the Doars, and take their names from the different passes which lead through the hills into Bhootan. Besides the Kooreapara Doar, formerly governed by the Twang Rajah, who was immediate dependent on Lassa, there are in all eight the Doars, eleven on the Bengal frontier and on the frontier of Assam,

Bengal Doars.
1. Dalimkote.
2. Zamerkote.
3. Cheemarchee.
4. Lukhee.
5. Buxa.
6. Bulka.
7. Bara.
8. Gooma.
9. Reepoo.
10. Cheerung or Sidlee.
11. Bagh or Bijnee.

ASSAM DOARS.

Kamroop Doars.
12. Ghurkola.
13. Banska.
14. Chappagoree.
15. Chappakhamar.
16. Bijnee.

Durrung Doars.
17. Booree Gooma.
18. Kulling.

Over the Bengal Doars, which extend from the Teesta, on the eastern boundary of Sikhim, to the Monas, the Booteah have for long years held sovereign dominion; and previous to annexation of Assam by the British Government during the first Burmese war, the Booteah had also wrested four of the Assam Doars from the Native government, while the other three were held on a sort of joint tenure by the Booteah and Assamese. How long this state of things had existed is not precisely known. The Bootiahs paid to the Assam government for the Doars a tribute of Rupees 3,049, partly in money and partly in goods; and after the annexation of Assam, the tribute was paid to the British Government, who also continued the system of joint occupation of the three Doars of Kooreapara, Booree Gooma, and Kulling, holding them for four months every year, and making them over to Bhootan for the other eight months. In 1828 the Booteah began the long series of outrages on the British frontier, which ended in the annexation of all the Doars. The first attack was on Chatgaree, in the Durrung Zillah, by freebooters from the Booree Gooma Doar, and was followed by the occupation of the Doar by the British Government till 31st July 1834, when it was restored on evidence being given, afterwards ascertained to be false, of the death of the leader of the freebooters. In 1838, the unsatisfactory sate of affairs on the frontier determined Government to send a friendly mission to the Bhootan Court, and, if practicable, to Lassa: Captain Pemberton was appointed envoy. Besides procuring information and statistics of the nature and resources of the country, and its political relations with Nepal and China, the object was to obtain the transfer accession of the Doars.

The deputation of another mission was suggested in 1841. The Deb Rajah was believed to be willing to farm all his Doars to the British Government; but as Bootan was at the time in a state of anarchy, no result could be expected from further negotiation, and on the 6th September 1841, the Assam Doars were ordered to be attached to Assam.

In 1863, another deputation was sent, but members were treated with great insult and gagement extorted from them. It was pudiated by the British Government, and as punishment for the outrageous treatment to which the mission had been subjected, the Amoaree Fallacottah was declared to be permanently annexed to the British dominions, and the payment of revenue to Bhootan from the Assam Doars was stopped for ever. And in 1865 they were permanently annexed to the British territories.

The missions, first of Mr. Bogle, and afterwards of Captain Turner, to Teeshu-loomboo had their origin in a petty war in the time of Warren Hastings.

The Booteah are fairer and more robust than Bengalees—hair black and close cut—eye small, black, with long pointed corners—eye-lashes scarcely preceptible—thin mouth.

Bhootan is bounded on the north by Thibet; on the west by Sikhim; on the east by the country of the Towang Rajah, and on the south by the British Territory; and from their unscrupulous marauding habits, the Bhootanese are on bad terms with every one of their neighbours. Though nominally subject to Thibet, were the annual tribute withheld, it would not be enquired after, so anxious are the Thibetans to have no dealings with the Bhooteah who used to make the transmission of the yearly fee of subjection (a few pieces of cloth, silk, and some rice) the excuse for a series of robberies and outrages on the journey to Lhassa. For the last few years, however, all the Bhooteah entering Thibet are disarmed at the frontier, beyond which the tribute-bearers are now permitted to proceed. The British annexed the Dooars of Bhootan from the L'hopa in 1865, and it is hoped there may spring a large and important trade between British India, Thibet, and the Western and Central Provinces of the Chinese Empire. From the new frontier to the Bhooteah town of Paro is, by the longest route, but a rather difficult eighty miles, and from the latter place to Lhassa, the rich capital of Thibet is only fifteen marches between Lhassa and Western China, there is constant and uninterrupted communication. In 1809, the trade between Bhooteah and Assam amounted to two lakhs of rupees per annum, the lac, madder, silk, erindi cloth, and dried fish of Assam exchanging for the woolleus, gold-dust, salt, musk, horses, chowries, and fabrics of Bhootan, or rather of Thibet, for the share of the Bhooteah in the business was at best but that of carriers or toll-takers. At one time the Deb Rajah used annually to dispatch a caravan with goods to a large value, chiefly cloth, pearls, and coral from Bengal to Lhassa, whence in return came one year gold alone to the value of Rs. 70,000. The articles thus obtained were sent into the British territory to be there disposed of, and for a long time the Bengal Government kept up regular accommodation at Rungpore for the Bhootan traders. This interchange has, however, for some years almost altogether ceased, and is now confined to the purchase of a little tobacco and indigo. The cause of the decline is simply the incorrigible rascality of the Bhooteah chiefs, who have come to be so distrusted that no Thibetian trader will place himself or his goods within their reach. "With Darjeeling, Mr. Eden reports, "the Bhootan trade is now nominal. With Thibet, their trade is scarcely more important. The easiest road from Bengal into Thibet is through Bhootan, and the articles in chief demand in Thibet on its northern frontier, namely, tobacco and indigo, are produced in great quantities in Rungpore, the District on its south frontier.

The Sikhimese have, less than the Thibetians, to do with the Bhooteahs, whom they look upon as unscrupulous robbers while to the East the Towang Rajah has to keep up a frontier force for the especial purposes of preventing Bhooteah raids. The little Fort of Dumsong 5,000 feet above the sea, is situated on a bluff jutting down into the valley of the Teesta between Sikhim and Bhootan. The view from this place is magnificent; the snows of the Choolah Nitai, and Yaklah passes are all quite close; on three sides are the different snowy ranges of Bhootah, Sikhim and Nepal: within a space of sixteen miles are seen the four countries of Thibet, Sikhim, Bhootan, and British Sikhim; Darjeeling is plainly visible, and below is the beautiful and fertile valley of Rhinok in Sikhim, for many miles can be seen the road from the Thibet passes to the Rungeet river on the Darjeeling frontier, the route followed by the Thibetian traders who annually visit Darjeeling.

Captain Gerard says *(Capt. Gerard's Account of Kanawar, p.* 100,) that Bhot, Bootuut, or Thibet, is often confounded with Bhootan, or the hilly country south of the Himalaya, forming the Deb Rajah's country, which lies between Teshoo Loomboo and Lhassa and the plains, the lower hills are not called Bhootan, west of the Tons.

Turner says *(Embassy, p.* 84-5) the Bhooteah have invariably black hair, which it is their fashion to cut, close to the head. The eye is small, black, with long pointed corners, as though stretched and extended by artificial means. Their eyelashes are so thin, as to be scarcely perceptible, and the eyebrow is but slightly shaded. Below their eyes, is the broadest part of the face, which is rather flat, and narrows from the cheekbones to the chin, a character of countenance appearing first to take its rise among Tartar tribes, but is by far more strongly marked in the Chinese. Their skins are remarkably smooth, and most of them arrive at a very advanced age, before they can boast even the earliest rudiments of a beard: they cultivate whiskers, but the best they produce are of a scanty straggling growth. Many of these mountaineers are more than six feet high, and their complexion is not so dark by several shades as that of the European Portuguese.—*Turner's Embassy, p.* 84-5.

Fraser writing of them *(Him. Mount.)* says like the people of the southern hills, their notions of female delicacy and virtue are loose and disgusting. Polygamy is permitted; promiscuous intercourse is by no means disgraceful to either party; the female is not considered as less eligible on account of her frailty. The debauching of a woman is either held as nothing, or is only punishable by a small fine. She may marry her betrayer, but he is not obliged to marry her. The offspring is the property of the mother.

A severe beating is administered to the adulterer by order of the headman of the village, and he is moreover obliged to pay a fine to the injured party. Chastity is indeed little regarded, and very little practised. The disgusting custom of a community of wives between brothers, five or six cohabiting with one woman, obtains here, as well as among the countries we have seen in the hills.—*Aitchison's Treaties, Vol. VII. p.* 360. *Prinsep's Thibet, Tartary and Mongolia, p.* 17. See India, 307, 309, 336, 338, 344. *Fraser's Himalaya Mountains, pages* 335,336. See Bhootan; Bhuddah; Chepang; Haiyu Chetang; Hasora; Hindoo, India, pp.313, 316, 336, 338, 344; Gurhwal; Lhopa; Kunawar; Polyandry.

BHOOT BAMIAN, literally idol-Bamian; a name of Bamian.

BHOOTA-SHOODDHI, SANS. bhoota signifies the four elements, and shooddhi, purification.

BHOOTESHA, SANS. from Bhoota, great, and Eesha, a lord.

BHOOTIAH, the people of Bhootan.

BHO-PHALLI, a small scandent plant, abundant about Ajmere. It contains a great quantity of mucus, and is used in great quantity, as an aphrodisiac, rubbed up with water and strained. It is also considered cooling, and is used in prescriptions as such.—*Gen. Med. Top. page* 127.

BHOOTA, SANS. the primary elements, from bhoo, to be,

BHOOT-BHERUBI; BENG. Premna barbata.

BHOO-TOOLSEE, BENG. Salvia plebeia.

BHOOTRAJ, BENG. Adder's tongue, Lygodium flexuosa.

BHOOVA-LOKA, SANS. from bhoova, the sky, and loku, a world. The world.

BHOOVANESH, SANS. from bhoovana, the world, and eeshu, lord.

BHOOT-THA. A tree of Akyab. Not much in use. Grows to a large size, and is plentiful in Ramree and Sandoway districts.—*Cal. Cat. Ex.* 1862.

BHOPAL, a town in India, in Lat. 77° 20' E. and Lat. 23° 16' N. It is in Malwa, 325 miles S. W. of Allahabad and at the level of the railway is 1,690 feet above the sea. Bhopal is a feudatory territory, 6764 square miles in extent, with a revenue of Rs. 13,76,252 and a population of 663,656. It has an army of 723 horse, 3,428 foot, and 73 guns with 223 artillery men. It was formed into a principality by Dost Mahomed, an Afghan in the service of Aurungzeb, on whose demise, Dost Mahomed established his independent authority, and died in 1723, aged 66. Many changes in the succession occurred, and during the Mahratta rule, the country was harrassed by that race and overrun by Pindari. When Colonel Goddard in 1778 marched through the territory en route to Bombay, its ruler treated Goddard with great kindness, and this has never been forgotten by the British. Since 1817, the alliance has been intimate, and in 1847, the regency devolved on Secunder Begum, daughter of Nuzzur Mahomed. But in 1847, Secunder Begum was proclaimed ruler and her daughter the Shah Jehan Begum her heir. During the revolt, Secunder Begum adhered firmly to the British for which she was rewarded by the grant of the pergunnah of Bairseah, and created a knight of the Star of India. She died in 1868, and was succeeded by her daughter Shah Jahan Begum.—*Aitchison's Treaties, Vol. IV. p.* 309. See Kunjana; Inscriptions, pp. 380-388. Airun.

BHOPALPOOR in Lat. 76° 54' E. and Lat. 23° 54' N.

BHOPAWAR. A British political agency which superintends four petty feudatory states, viz. that of Jobut whose chief is a Rahtor rajput, with a population of about 7,000 chiefly Bhils. Mutwara, also with a Bhil population: Khuttewarra and Ruttonmul; Mota Burkhera; Kalee Bouree. The guaranteed states are Alirajpore, of Dhar; Jabooa; Neemkhera or Tirla, Chota Burkhera or Sorepoor, Mota Burkhera and Kali Bowree.—*Aitchison, Vol. IV. p. 405.*

BHORT, HIND. Cenchrus echinatus.

BHOT. This word, according to Latham, under the appellations of *Bult* in Bultistan: *But* in Butan; *Bet* in Thibet, or in such words as the Bhooteya or Bhotiya, in ethnology comprises the Little Tibetans, the natives of Ladak, the Tibetans of Tibet Proper, and the closely allied tribes of Butan. Balti, or Baltiyul is called Palolo or Balor by the Dards, and Nang Kod by the Tibetans. It is preserved in Ptolemy in Byltæ. The country is frequently called Skardo or Iskardo from the name of its well known fort and capital. Balti Proper is a small table land, and with that of Deotsu, is about 60 miles long and 36 broad,—the mean height of its villages above the sea is about 7,000 feet. The Balti, the people of Little Tibet, the Byltæ of Ptolemy, though Tibetan in language and appearance, are all mahomedans, and differ from the more eastern Tibetans of Le (who call themselves Bhotia or inhabitants of Bhot) by being taller and less stoutly made. Their language differs considerably from that of Le, but only as one dialect differs from another. The Bhot of Ladak is strong, hardy, short and square with a decidedly Mongol physiognomy—by which is meant a flat face, broad cheek, depressed nose, very large ears, oblique and narrow eye curtained at the corners, black hair and low stature, their average height being 5 feet 5·1 inches: the skulls are less Mongolian, having a capacity of 72 cubic inches, 80 cubic inches being a fair capacity for a European. The grand Lama is a Bhot. The ordinary monk or priest in Tibet is the Gylong,—above whom are the Lamas or Presidents, and below whom are the Tohba and Tuppa. The Tuppa is a probationer who is admitted into the establishment to which he would attach himself at the age of 8 or 10 and receives instruction accordingly. At 15, he becomes a Tohba, and at 24 a Gylong, provided his acquirements be satisfactory. There are two sects, the Gyllupka, who dress in yellow, and the Shammar in red, the Shammar Gylong being allowed to marry. The Bhot of the Tibetans have been extending westward. As a general rule, the Himalaya divide Hindustan from Bhotland, but there are Bhots in several parts south of the crest of those mighty mountains in Garhwal and Kemaon. The people of Le, the eastern Tibetans, call themselves Bhotiah, or inhabitants of Bhot. They are not so tall and are stouter made than the Tibetans of Balti or little Tibet, who though Tibetan in language and appearance are all mahomedans.—*Dr. Thomson's Travels in Western Himalaya and Tibet, p. 247. Latham's Ethnology. A. Cunningham.* See Balti; Byltæ; Dard; Kailas; Gangri Range; Kara-koram; Ladak; Tibet.

BHOTIAH RAI, HIND. Sinapis ragosa.

BHOT-PA. A name of Ladak. See India p. 337.

BHOULIYA is a lighter description of the Bajra boat, varying in dimensions between the Dhengi or passenger boat and a middle sized Bajra. It is in general use on the Ganges, alike for a suburban trip or for a long up-country journey.

BHOWNAGGAR in L. 72° 21' E. and L. 21° 47' N., in Kattywar, the principal talukdars are their Highnesses the nawab of Junagurh,—the Jam of Navanaggar, the Rawal of Bhownaggar: and the Rana of Porebandar, the Raj of Drangdra and the Thakur of Murvi, Junagarth, the most important, is held by a descendant of Sher Khan Babi, a soldier of fortune who seized it in the general anarchy which preceded the subversion of the Moghuls. 20 miles to the west are the ruins of Balabhipura.

BHOWRA. The wild hunter race of India, called Pardhi, Hirn-Pardhi, Shikari, and Hirn Shikari. See India, p. 327 and 328.

BHRAMARA MARI, TEL. Clerodendron serratum. Volkameria ser. R. iii. 602. The Telugu word signifies "bee-killer." See remark on Brahmi chettu.—*Bl. W. Ic.* 1472.

BHRAMUK, BENG. Sun flower, Helianthus annuus.

BHRATHI-DWITAYA, SANSC. A hindu festival on the 2nd of the hindu month Kartik, when hindu sisters entertain brothers in memory of Yamuna entertaining her brother Yama.—*Wilson.*

BHRIGA, Vasishtha, and Atri are three of the great saints or sages called Prajapati or Brahmadika, that is, mind-born sons of Brahma. They are variously described as seven, nine, ten, and even twenty-one in number.—*William's Story of Nala, p.* 214. See Brahmadica. Lakshmi. Vishnu Purana, p. 49.

BHRIGU. A name of the planet Venus.

BHRINGAR, BENG. Verbesina prostrata.

BHU, SANSC. Bhum, Bum, Bhun, Bhuin, Bhumi, HIND. Land, Earth.

BHU. In Hindu astronomy seems to imply the middle place. Bhu-chacra, when applied to the celestial sphere, means the equinoctial line. Bhu-carna, the Radius of the Equator. Bhu-paridhi, the same as Bhu-chacra.

BHU. SANSC. Bhuvar, Swar, earth and sky and heaven.

BHUBANESWAR. A prince of Orissa. Aniyanka Bhima was celebrated in Orissa and endowed Jagannatha. He had the misfortune to kill a brahman, and raised numerous temples in expiation of his offence, at one of which was a slab; with a Saiva inscription.—*Vol. VI. p.* 278. See Inscriptions, p. 380.

BHUCHAKRA GADDA, also Nela gummudu. Tel. Batatas paniculata, *Ch.*—Convolvulus paniculata.—*R. i.* 478.

BHU-DADIMBAH, Sans. Careya herbacea.

BHUDUCK. A predatory race of the Nepal Terai.

BHU-DEVI, also Bhuma Devi, also Prit'hivi, names of the earth and fabled to be married to Prithu. Bhu Devi, in hindu mythology, is the terrestrial name of Parvati, as goddess of the earth, as the names of Diana were varied to suit her various forms, she being Luna in heaven, Proserpine or Hecate in hell, so her archetype, the hindu Parvati, is the heavenly Bhavani, on earth Bhudevi, and Patala-Devi as consort of the regent of the infernal regions. Bhu-Devi, as spouse of the earthly goddess is a name of Siva.—*Hindu Infanticide, p* 28.

BHUDOWRIA. A branch of the Chouhon rajputs.

BHUGRI, Hind. An inferior kind of date boiled in oil and water and dried; used in Mooltan and Derajat; also the Ber fruit, dried.

BHUI. Head of a Gond village.

BHUIAN. A tribe in Orissa. See India, p. 329.

BHUI CHAMPA, Hind. Kæmpferia rotunda.

BHUIN-DAGDHA, *Lit.* Earth-burning: Gifts of hindus at marriage and funerals from the ceremony of burning earth prior to their presentation.

BHUI-SING, Guz. Hind. Arachis hypogæa; Ground nuts.

BHUI-SING-KA-TEL, Hind. Oil of Arachis hypogæa.

BHUI VANSA. A Zemindari race, called Khurda raja and Bhui Vansa, who ruled in Orissa from 1580 to 1804 when Mukund Deo was deposed. See Orissa.

BHUINHAR. See Bhunhar.

BHUJ, Hind. Betula bhojputra.

BHUJAPATRI CHETTU, Tel. Betula Bhojpatra. A Himalayan tree, the leaves or bark of which are used to cover the baskets of Ganges water sold by itinerant pilgrims. Heyne erroneously calls it a *Nepeta.*—*Wall. Royle, III. p.* 343.

BHUJYU. See Hindu, p. 134.

BHUK, Hind. Allium, Sp.

BHUK OKRA, Hind. Zapania nodiflora.

BHUKRI, Hind. Tribulus alatus.

BHUKSA. A forest tribe under the hills from Purunpur Subna on the Sapda to Chandpur on the Ganges. They claim to be Powar rajputs expelled from Dhar and to have 15 got or clans.

BHUKTI,—RASAMRITA—SINDHOO, Sans. From bhuktee, devotion; rasa, juice; amrita, the water of life, and sindhoo, the sea. See Bhakti.

BHULL. Like all large rivers which flow for a very lengthened course, through an alluvial soil, the Indus throws up patches of alluvial deposit at its mouth. In Sind, these are called bhull and they are of great value in the cultivation of the red rice of the country. They are swampy and exist on both sides of the principal mouths of the Indus, in the Gora baree and Shahbunder pergunnahs, but produce a considerable portion of the rice consumed in Sind.—*Simmonds, p.* 293.

BHULLEH. One of the clans of the Agnicula Rajputs. See Khutri.

BHUM, Sans. Hind. The land, Bom, Pers. Bhumia, a landlord. Bhumiawat a general plundering. Bhun-bhai, a landowner in a village.—*Ell.*

BHUMI in hindu astronomy, the terrestrial globe, supposed to be in the centre of the universe. Bhumi savana; proper, natural, to the earth. Bhumi savana dina; a natural day.

BHUMIJ, Uraon. Earth-born: Prior inhabitants of Orissa, with whom the Uraon or Ho or Kol mixed when driven eastward. Wilson describes the Bhumij to be a caste of low hindus numerous in Ghatsila. See India, p. 329.

BHUMI PALA. See Inscriptions, p. 392.

BHUMI-TAILUM. Sans. Tam. Tel. Earth Oil: Naphtha.

BHUMOWRA, Hind. Cornus capitata.

BHUM-PHOR, Hind. "Earth-splitter." Philipæa calotropidis, Tulipa stellata.

BHUMTAS, Hind. Salix tetraseperma.

BHUN CHAMPA. Sans. Kæmpferia rotunda.

BHUNGHE, Beng. Corchorus olitorius.

BHUNHAR, A hindu tribe numerous in Gorukpur, Azimghur and Benares. The rajah of Benares is one of this caste; they claim to have been brahmins.—*Elliot.*

BHUN KE DUM, Hind. Verbascum thapsus.

BHUPAL. See Bhopal: Sanchi.

BHUPALA. The first dynasty of rajas of Bengal. See Bengal.

BHUR, Hind. Sandy hillocky soils, the "tibba" of the Punjabi.

BHUR, Hind. A thatch grass, growing in the jungles of N. India to a height of 9 feet.

BHUR and RAJBHUR, a race in Northern India, known by tradition as the oldest of Indian races.

BHURANYU, in hindu mythology, a fab lous golden winged falcon who stole the sa Soma.

BHURJ or Bhojaputra. Betula the putra. Paper birch, of the delicates of used as paper, for covering um lining hookahs, &c.—*Cleghorn, on Kullah and Kangra.*

BHURKUNDA, Hind.? also BHURSOO, Hind. A tree of Chota Nagpore with soft, white timber.—*Cal. Cat. Ex.* 1862.

BHURTPOOR. A town in India in Long. 77° 32′ E. and Lat. 27° 15′ N. It is 32 miles west of Agra. Aitchison tells us that it is the capital of a Jat principality founded by a freebooter named Birj, who held the village of Sinsunnee in the pergunnah of Deeg, but the power of this State was chiefly extended during the decline of the Mogul empire by his great grandson Sooruj Mull, who was killed in 1763. Sooruj Mull left five sons, three of whom administered the state of Bhurtpore in succession. During the rule of the third son Namul Singh, the fourth son Runjeet Singh rebelled and called in the aid of Nujjuf Khan, who stripped the family of all their possessions except the fort of Bhurtpore, which was held by Runjeet Singh. After much internal and external trouble, Sindhia gave back to the family, first eleven, then three pergunnahs, which now form the State of Bhurtpore. In 1863, the chief Runjeet Singh entered into a treaty with the British: but he gave shelter to Holkar when pursued by Lord Lake, after the battle of Deeg, and on refusing to deliver him up, Lord Lake made four assaults which were each repelled, but the chief then agreed to expel Holkar from his territory and a new treaty was entered into. On the recurrence of differences, Bhurtpoor was again besieged and fell to Lord Combermere on the 18th January 1826. Since British India was taken under direct British rule, the Maharajah has received a Sunnud (No. III), conferring on him the right of adoption and to a salute of seventeen guns. The area of Bhurtpore is 1,974 square miles, the population 650,000, and the revenue Rupees 21,00,000. Bhurtpore pays no tribute and no contribution to any local corps or contingent. The army consists of 3,368 infantry, 2,214 cavalry, and 313 artillery.—*Treaties, Engagements and Sunnuds, Vol. IV. pages* 121, 132 *and* 133. See Jat, Statistics of Battle.

BHURUNDI, Sansc. or Telu Mani. Tel. Tiaridium Indicum.—*Lehm.*

BHUS, Sans. Bhusa, also Bhusi, Hind. bran of wheat; chaff, or cut straw or leaves, &c., for feeding cattle.

BHUSHANA. See Inscriptions, p. 383.

BHU-SARKARA, Tel. or Morinika and ta Tige. Niebuhria oblongifolia, DC.— & A. 79.—Capparis heteroclita, R. 0 The sweet tuberous roots, dried and d to powder, are used medicinally for cooling drink.

BHUSKI, Hind. A carbonate of soda.

BHU-STRUNAM,—S. or Chippu gaddi, Tel. Andropogon schœnanthus.—*L.*

BHUT, Hind. Said to be the Soy bean, the Sojahispida.

BHUT. See Bhot, Bhooteah, Kunawar, Ladak, Tibet.

BHUTA or BHOOT. A ghost, an evil spirit.

BHUT-BALI. Offerings to evil spirits, ghosts, goblins; offerings at funerals to demons and spirits, offerings to all creatures.—*Wilson.* See Bali.

BHUT-BAMIAN. A name of Bamian.

BHUTALA BHAIRI, Tel. Bhatamkusam S. Croton oblongifolium, R. iii. 685. The Telugu name signifies "demon-driver" or "devil goad"—and sticks made of it are carried as a protection against evil spirits.

BHUTAN. See Bhootan, Bara Lacha, Kashmir.

BHUTARI. A town on the southern slope of the Himalaya. Its ancient name was Madra.

BHUT JHATA, Hind. Apium graveolens.

BHUTNERE. The tract from Loni to Kasna called after the Bhutti race. See Bhutnair.

BHUTNAIR has attained great historical celebrity from its position, it being in the route of invasion from Central Asia to India. The Bhutti and the Jit seem to have been so intermingled that distinction is impossible. The Jit, in a naval war on the Indus resisted the advance of Mahmud of Ghazni. In A. D. 1205, only twelve years after Shahab-ud Din conquered India, his successor, Kutub, in person conducted a war against the Jit of the northern desert, to prevent their wresting Hansi from the mahomedan empire. When the dethroned queen Razzia, heiress of Feroz, was compelled to abandon her throne, she sought protection amongst the Jit, who with their Scythic brethren, the Ghikar, assembled all their forces and marched with their queen at their head, to meet her foes, but she fell in battle in the attempt to re-gain her kingdom. Again, in A. D. 1397, when Timur invaded India, Bhutnair was attacked for having distressed him exceedingly on his invasion of Multan, when as he mentions, he in person scoured the country, and cut off a tribe of banditti called Jit. Shortly after Timur's invasion, a colony of Bhatti under their leader Berai migrated from Marote and Phoolra, and assaulted and captured Bhutnair from Chagat khan, a noble of the Chagtai tribe, but whether an officer of Timur or of the Delhi Court is not known. But he had conquered Bhutnair from the Jit and had acquired a considerable territory, which the Bhatti colony took advantage of his departure to re-conquer. The tract depending on this, and that north of it to the Garah river, in Colonel Tod's time presented a scene of absolute desolation. But in former times were many villages, of which in his day, remains only were to be seen.—*Tod's Rajasthan, Vol. III. p.* 212. See Bhatnair.

BHUTNI SAJJI. HIND. *lit.* Devil's soda.

BHU-TULASI, Ocimum Basilicum, *var.* and O. pilosum.—*R. III. p.* 16.

BHUTTEE. See Bhatti, Jut.

BHUTWA, HIND. Chenopodium.

BHYNEE, CAN. Caryota urens.

BHYENG-TSENG, BURM. In Amherst, a close-grained, compact, grey wood, fit for general purposes, and seemingly exempt from attacks of insect.—*Captain Dance.*

BHYNSROR, is the tract named Puchail, or the flat, between the river Chumbul and the pass, and contains about twenty-four villages in the lordship of Bhynsror. According to the local tradition of some of the wild tribes, its more ancient name was Bhadravati, the seat of the Hoon race; and the traces of the old city in extensive mounds and ruins are still beheld around the more modern Bhynsror. Tradition adds, that the Chirmitti the modern Chumbul had not then ploughed itself a channel.—*Tod's Rajasthan, Vol. II. p.* 713.

BHYRUL, a river of Jessore.

BIA, Ptero-carpus marsupium. See Beba.

BIA in L. 100° 50′ E. and L. 18° 16′ N.

BIADE: GRANI. IT. Corn.

BIADIAH. Green turbans.

BIANA, the chieftain of this was the Dahima, one of the most powerful vassals of the Chouhon emperor or Pirthi rajah, the brothers of this house held the highest offices under the emperor, and the period during which the elder Kaimas was minister, was the brightest in the Chouhone dynasty.—*Tod. Rajasthan, Vol. I. p.* 119.

BIAR-WOOD. A tree of Mehra forest, near Abbottabad, Hazara. Natural order, Coniferæ, it is Pinus longifolia, Pinus excelsa, or lofty pine.—*Cal. Cat. Ex.* 1862.

BIARMI. A river of Dumoh.

BIAZ, HIND. PERS. Interest of money.

BIBA BIBA, CAN. Holigarna.

BIBACHA, HIND. Brassica Griffithii.

BIBI, HIND. Lady; Bibi Sahib, Anglo-Hind. properly bibi-sahibah, an Englishwoman, the mistress of a house.

BIBEEPOOR, in L. 80° 53′ E. and L. 26° 50′ N.

BIBLA, HIND. Bibla Honi. MAR. Pterocarpus marsupium.

BIBLE. From Greek biblos and Latin biblum, a book. The Bible is divided into two portions, the Old Testament and New Testaments. The former contains the writings of Moses and the prophets and is the Canonical book of the Semitic religion of the Jews or Hebrews, the latter contains the doctrines of Jesus Christ but both books are Canonical in the religion of Christians. The two books of the Old and New Testament are reverenced by the mahomedans of the S. and S. E. of Asia, and the possessors of the Taurait, Anjil, Zabur, Koran and Furhan, viz., the books of Moses, the Evangils, the Psalms and the Koran, are styled Ahl-i-Kitab or People of the Book, *i. e.*, people possessing a revealed religion. The New Testament of the Bible was written originally in Greek, but the book has now been translated into all the European and most of the Semitic, Aryan and Tartar tongues, and largely distributed. The Old Testament, too, has been, in parts, turned into the vernacular tongues of India, and the whole of the two books has appeared in Arabic, The Old Testament part of the Christians' Bible is supposed to have been written in Hebrew from which it was translated into Greek. It is related that Philadelphus sent Aristæus, a man whose wisdom had gained his friendship, and Andræus, a captain of the guard, both of them Greek Jews, with costly gifts to Eleazer the high-priest of Jerusalem; and asked him to employ learned and fit men to make a Greek translation of the Bible for the library at Alexandria. Eleazer named seventy Elders to undertake the task, who held their first sitting on the business at the king's dinner-table; and Menedemus the Socratic philosopher, the pupil of Plato, was also present, who had been sent to Philadelphus as ambassador from Eubæa. The translators then divided the work among themselves; and when each had finished his task it was laid before a meeting of the seventy, and then published by authority. Thus was said to have been made the Greek translation of the Old Testament, which, from the number of the translators, we now call the Septuagint; but a doubt is thrown upon the whole story by the fables which have been mingled with it to give authority to the translation—(*Sharpe's History of Egypt, Vol. I. pp.* 308-309.) The Canonical books of three of the principal religions of the ancient and modern world, viz., the Veda of the brahman, the Zend-Avesta of the Zoroastrian and the Tripitaka of the buddhist, have lately been recovered for Europe. These books have discovered the real origin of Greek and Roman and likewise of Teutonic, Slavonic and Celtic mythology. The Koran and the literature connected with it, affords information regarding another Semitic religion, the doctrines of Mahomed, and the discovery of the monuments of Babylon and Nineveh has furnished new materials for the study of the Semitic religions, and images of Bel and Nisroch have been produced. Movers has illustrated the religious worship of Phœnicians and Carthaginians, from their temples, and the religious ideas of the Arab nomades, prior to the time of Mahomed have been described by others. The idols and temples, the hierohic inscriptions, the hieratic and demotic have afforded much information regarding the religion of Egypt. Besides the Aryan and Semitic families of religion, there are in China, three recognised forms of public worship,—the religion of Confucius, that of Lao-Tye, and that of Fo (Buddha). Among the Turanian nations, a few only, such as the Finn and Mongolian have preserved some remnants of their ancient worship. And something is known of the religions of Mexico and Peru, and of the savage inhabitants of America, Africa and Polynesia. To gain a full knowledge of the Veda, the Zend Avesta, the Tripataka, of the Old Testament, the Koran or the sacred books of China would be the work of a long life —(*Max Muller, Chips from a German Workshop, Vol. I. p. 12 to 15.*) In British India, the religious of the Aryan and Semitic families predominate: buddhism in Ceylon and Burmah and beyond the Himalaya. But the believers in one God, are the Jewish worshippers of the Western Coast of India; the mahomedans all over Asia and the christian disciples, and to all these the mahomedans apply the term Ahal-i-Kitab, *i. e*, People of the Book. The great body of the people however are the Turanian races, many of them servile, who worship spirits, ancestors and idols, with the followers of the brahminical hindu faith, and the Jain worshippers of Western India, amongst all of whom is found every conceivable kind of worship from the grossest sensualism to the most exalted spiritualism and the worship of stocks and stones to the sublimest conceptions of the omnipresent God. There is however in all their religions a secret yearning after the true, though it may be, unknown God. The Veda of the hindus is in Sanscrit. It does not seem to have been translated as a whole, into any of the Vernacular tongues of India and there are but few brahmans who can read it and understand it, though they learn portions of it by heart. It is considered a revelation; and the laws of Manu, the Purana or legendary histories of India, and Tantra and the six orthodox hindu systems of philosophy, derive their authority from their agreement with the Veda. It was this book of which the buddha, Sakya muni, denied the authority. In the Vedanta philosophy, the beginning of all wisdom is said to be a desire to know God, who is the cause of the universe and this is to be learned from the scripture. The Nyaya philosophy acknowledges four sources of knowledge,—perception, induction, analogy and the word or Veda. The Vaiseshika philosophy, is an atomistic system, not favourably looked on by the Brahmans, nevertheless proclaims the absolute authority of the Veda. The Sankhya philosophy is atheistic, it maintains that a personal God cannot be proved though it so far conforms as to admit the received doctrine of the Veda as evidence in addition to perception and induction. The Purana, or old books, superseded the Veda. The buddhist religion of Burmah, is likewise a philosophy. The British rulers of India, have allowed the utmost religious freedom to all the races under their sway and the bible has never been used as a class book in any Government School. This has been denounced by earnest men as time serving. However, the Koran, the Vedas are equally excluded, but the Grant-in-aid rules of 1854 permit money allowances to every school in India, where education up to a certain standard is imparted, and in these grants every christian school can equally share.

BIBLIOTHECÆ SANSKRITÆ. A Catalogue, by Professor Gildemeister, of Bonn on the Rhine, published in 1847, of Authors, Indian and European, who have edited or translated Sanscrit works, or treated of Sanscrit literature.—*Cal. Rev.*

BIBOR, JUBAR, KULTA or KOLITA, are populations to the north and east of the Abor and Mishmi localities, on the drainage of the Brahmaputra.—*Latham.*

BI-BORATE of SODA. ENG. Borax.

BIBOS CAVIFRONS, the Gyal; See Bos.; Gyal.

BIBWA. MAR. Semecarpus anacardium.

BICARBONATE DE SOUDE. FR. Soda.

BICCAVOLE, in Long. 82° 7′ E. and Lat. 17° N.

BICHALA GOOTA in L. 77° 23 E. and Lat. 16 N.

BICHE DE MAR.

Hoy-shup...	CHIN.	Swala......	JAV.
Esculent Holothuria	ENG.	Holothurion...	LAT.
Swalloe of English sailors and traders	,,	Suala..	MALAY of Celebes.
Sea-slug	,,	Tripang,	,,
Sea cucumber	,,	Beche de mer, (or sea worm)............	PORT.
Beche de mer...... ...	FR.	Balate...	PHIL.

The names given to species of Holothuria, found in most of the shallow seas of the Malay and Philippine Archipelagos. The word tripang is Malay, and the animal is called by the people of Celebes, suala which British traders write swalloe. It is the Beche de mer, or sea-worm of the Portuguese, and our own "sea-cucumber," for in appearance and shape, although not in colour, for it is a dirty brown, it greatly resembles a cucumber. The esculent holothuria is by no means confined to the seas of the Archipelago; it is found in the upper part of the Gulf of Siam, and is so abundant on the northern coast of Australia that the people of Celebes, receiving advances from the resident Chinese, have been long in the habit of making annual voyages thither in quest of it. Gutted, dried in the sun and smoked, it is considered cured, and fit for its only market, that of China, to which many hundred tons are yearly sent for the consumption of the curious epicures of that country. The fishery of the tripang is to China what that of the sardine, tunny, and anchovy is to Europe. It is, for the most part, caught by hand, for it has little power of locomotion, but in deep water, sometimes by diving. Mr. Windsor Earl, in his account of the fishery on the shores and banks of the Aru Islands where this animal appears to be very abundant, mentions that their great sources of wealth are the pearl and tripang banks, which lie on the eastern side of the group. These extend the entire length of the islands, and are often several miles in width, being intersected by deep channels, some of which will admit vessels of burthen. The tripang, or sea-slug, on that coast, is of several varieties. The greater portion is caught in shallow water, where it can be picked up off the bank without diving." (See *Journal of the Indian Archipelago*, *Vol. IV. p.* 480.) The tripang, although an article of considerable importance in the trade of the Indian Islands, is never found in the printed price-currents of an European emporium, be- se seldom dealt in by Europeans, which rises from nice or rather capricious distinc- ions in their quality, which no European is competent to appreciate. We can discover no mention of the tripang in the early Portuguese writers; which seems to be another proof that the Chinese, who carry on the trade and advance the funds, had not yet settled in the Archipelago when the Portuguese first appeared in it.(*Crawfurd Dict. page* 440.) The Hon'ble Mr. Morrison mentions that it forms one of the important articles of commerce between the islands of the Indian Archipelago and China. That it is found on all the islands from New Holland to Sumatra, and also on most of those in the Pacific: but is produced in the greatest abundance on small coral islands, especially those to the south and east of the Sulu group. Among the Islanders it is known by the name of tripang, the Chinese at Canton call it hoy-shun, which means sea-ginseng. It has but few powers of locomotion. It is sometimes two feet long; but its common length is from four to ten inches, and its diameter two or three. Its tentaculae are short, and when the animal is captured are folded up under its body. It is taken with the hand by natives, who often dive for it; and after it has been cleansed, dried, and smoked it is fit for sale.

The Holothuria of Raffles Bay is about 6 inches long and 2 inches thick. It forms a large cylindrical fleshy mass almost without any outward sign of an organ. The tripang is first thrown into a kettle filled with boiling sea water after a few minutes, it is removed and ripped open with a knife, to cleanse it of its intestines. It is then thrown into a second kettle where a small quantity of water and the parching rind of a mimosa produce dense vapours. This is done to smoke the tripang for better preservation. Finally, it is dried in the sun or in case of bad weather under a shed. For a long time the Chinese were the sole carriers of the article; but recently foreigners have engaged in the trade. In the market, it appears hard and rigid, and has a dirty brown color; when brought to the table it resembles pork rind in color and consistency. The Chinese use it by itself, or as an ingredient in other dishes, and consume large quantities under the belief that it is an aphrodisiac. The varieties into which they divide it are above thirty, varying in price from $80 down to $1½ per pecul, but unless one is well acquainted with the article it is impossible to distinguish them; a great deal of this article is imported into Macao, in junks and Portuguese vessels. In the Chinese tariff, all the sorts are arranged under the two heads of black and white. (*Morrison, p.* 141.) Mr. Faulkner mentions as its localities, the Eastern Archipelago, Australia, Mauritius, Ceylon, Zanzibar, &c., and that it is occasionally brought to Bombay from the latter place, and re-exported to China.—*Journal of the Indian Archipelago, Vol. IV. p.* 480. *Hon'ble Mr. Morrison's Compendious History, p.* 141. *Crawfurd's Dictionary,* 440. *Faulkner.* See Holothuria; Tripang.

BICHHATA, HIND. Urtica interrupta.

BICHHATI, BENG. Sliver weed, Argyreia speciosa.

BICHITI. BENG. Tragia involucrata.—*Linn.*

BICHLORIDE OF MERCURY. Bi-chlorure de mercure, also Sublime Corrosif, FR. Corrosive sublimate.

BICHOLINI, in Long. 74° 0' E. and Lat. 15° 36' N.

BICHU, HIND. Martynia diandra.

BICHU, HIND. A scorpion.

BICHUA, HIND. The Himalayan nettle.—the name is from bichu, Hind, a scorpion.

BIDAJ, HIND. Salix Babylonica.

BIDARIKAND, HIND. Pueraria tuberosa. Root, in Ajmere, considered of a warm nature, and used among a great number of ingredients of many prescriptions.—*Gen. Med. Top. p.* 126.

BIDDAREE, in Long. 75° 43 E. and L. 13° 55' N.

BIDDARI, SANS. Gmelina Asiatica.

BIDDARI-NANA-BIUM, TEL. Euphorbia thymifolia.—*Linn.*

BIDASPES. The modern Behut was called Bedaspes or Hydaspes by the Greeks, Behut is the modern abbreviation for the ancient Vitasta.

BIDDAT, HIND. In Mohamedan law, indifferent, points of their religion neither directly enjoined nor yet forbidden by Mahomed.

BIDDEREE, in L. 77° 0′ E. and L. 13° 25′ N.

BIDGIRAMMI, MAL. Linseed.

BIDDHU-KURNU, BENG. Clypea hernandifolia.

BIDIE, Dr. George, a Madras Medical Officer, author of many articles to scientific journals: also a Hand Book to Coffee planting.

BIDJEGURH COAL. See Coal.

BIDJEPOOR, in L. 80° 59′ E. and L. 25° 42′ N.

BIDNANDA KALLANG. See Biduanda Kallang.

BIDNUR. A town in the northern part of Mysore. It belonged to the ancient Chalukya dynasty. It is usually written Bednore and is also called Nagar. See Chalukya.

BIDOKUH, in L. 78° 8′ E. and L. 27° 47′ N.

BIDOWLY. Two towns in India, one in L. 82° 53′ E. and L. 27° 10′ N. The other in L. 77° 6′ E. and L. 29° 32′ N.

BIDUANDA KALLANG. A race who with the Orang Sleetar dwelt in Singapore, but were removed from it by the British when they occupied in 1818. They speak Malay with a guttural accent. They are now dwelling in the Malay Peninsula. They are called by Latham Bidnanda Kallang.

BIDURU NANA BIYYAM, TEL. Euphorbia thymifolia, *L.*, has the signification of "green or raw rice of *Biduru*." The term "raw rice" or *pachchi arisi* TAM. is applied in the Tamil tongue to several of the smaller species of *Euphorbia.*

BIDUL, BENG. Bauhinia purpurascens: var. B. variegata.—*Roxb.*

BIER, GER. Beer.

BIERE, FR. Beer.

BIGHA. Bigha, Beegha, corruptly Beegha, Beegah, &c. A land measure varying in extent in different parts of India. The standard Bigha of the Revenue surveys of the North-West Provinces is equal to 3,025 square yards, or 5-8ths of an acre. In Bengal, the Bigha contained only 1,600 square yards, or little less than 1-3d of an acre. In Benares, it was, at the time of the settlement, determined at 3,136 square yards. In other pergunnahs it was 2,025 to 3,600, or to 3,925 square yards. A kacha (immature, crude, small) Bigha is in some places a third, in others only a fourth of a full or standard Bigha. Akbar's Bigha contained 3,600 Ilahi-gaz which have been considered as equal to the 3,025 square yards of a Bigha of Hindustan.

In the N. W. Provinces of India it is nearly five-eighths of an acre. In the Lower Provinces it is 120 feet square, or 4,800 superficial feet nearly one-third of an English acre.—Tod says that in Rajputana 120 are = 40 acres. Sir H. Elliot specifies the following as some of the variations found in the Upper Provinces, for 100 acres, viz.

	Bigha.	Biswa.	Kitta.
Farakhabad, ...	175	12	0
East and South Gorakhpur.	192	19	7
Allahabad & part of Azimghur... ...	177	5	6
Part of Azimghur and Gazipur ...	154	6	8
Bijnur...	187	19	15
In the Upper Doab (Kachhu)... ...	582	3	0

In Cuttack, the Bigha is now considered to be an English acre. The Maratha bigha is called twenty pand, or 400 square kathi or rods, each five cubits and five hand-breadths: as the rod varies, so does the bigha: under the Adil Shahi dynasty it was equal to 4683 square yards, or only 457 square yards less than an English acre. The Guzerat Bigha contains only 284$\frac{4}{9}$ square yards.—*Glossary of Indian Terms by Wilson, p.* 85. *Elliot, Supplement. Tod's Rajasthan, Vol. I. p.* 553.

BIGNI, HIND. Celtis Caucasica.

BIGNONIACEÆ, An order of plants. See Bignonia; Calampelis; Spathodea uncinata, Calosanthes Indica. Evergreens.

BIGNONIA of this genus of plants, one of the Bignoniaceæ, about 70 species are known and 18 occur in China, the Moluccas, Assam, Morung, Peninsula of India and Malacca. They have ornamental flowers and amongst them are B. adenophylla of Burmah, B. undulata of Hindustan and Guzerat. B. chelonoides and B. suaveolens of Hindustan and Dekhan, multijuga of Silhet and Penang, suberosa of Burmah and Peninsular India. B. xylocarpa of the Neilgherries and jungles of Kandesh and Concans. Several of these plants were formerly ranged under the genus Tecoma. The leaves of Bignonia chica yield a red colouring matter. The bark and capsules of B. indica are astringent, and used in tanning and dyeing. The pleasant tasted and fragrant flowers of B. chelonoides (suaveolens) are described as being used as a cooling drink in fevers.—Dr. Mason mentions that the Karens often build their boats with the wood of a species of Bignonia, which is frequently used in joinery. Several of the species which grow in Burmah and Tenasserim are not yet specifically identified. Of these may be enumerated. "Ky-oung-sha-touk" Than-theet, Burm. thu-gai-nee. Burm. Ky-wai-tha," Burm. Sp. "lain-bha" Burm.—*Mason's Tenasserim. O'Shaughnessy, p.* 489. *Voigt.* 471. See Cocao.

BIGNONIA, *Species.*

Tha-thee. BURM.

A very large tree of Tavoy.—*Captain Dance.*

BIGNONIA, *Sp.*—Thug-gai-nee. BURM.

A large tree of Tavoy, used in building.—*Captain Dance.*

BIGNONIA, *Species.*

Lainbha. BURM.

A middle-sized tree of Tavoy.—*Captain Dance.*

BIGNONIA, *Species.*

Than-day. BURM.

A light, loose grained wood of British Burmah, not much used. Breaking weight 125 lbs. A cubic foot weighs lbs. 33 to 36. In a full grown tree on good soil, the average length of the trunk to the first branch is 30 feet, and average girth measured at 6 feet from the ground is 7 feet. It sells at 4 annas per cubic foot.—*Dr. Brandis.*

BIGNONIA, *Species.*

Kyoun-douk. BURM.

Wood of British Burmah, not used. A cubic foot weighs lbs. 23. In a full grown tree on good soil, the average length of the trunk to the first branch is 15 feet, and average girth, measured at 6 feet from the ground, is 2 feet.

BIGNONIA, *Species.*

Thau Thet Ngai BURM.

A tree of Moulmein. Used in common purposes of building.—*Cal. Cat. Ex.* 1862.

BIGNONIA CHELONOIDES, *Linn.*

Stereospermum chelonoides, *D.* C.

Keersel...	...MAHR.	Tagada...	...TEL.
Tuatuka ...	... ,,	Kaligoru...	... ,,
Padri maram	...MALEAL.	Kalighutru...	... ,,
Pu-padria maram...	TAM.	Kalugoru ...	.. ,,
Pathiri maram. ...	,,	Pamphoonea...	...URIA.
Kaligottu...	... TEL.		

This tree is wrongly supposed to be identical with the B. suaveolens of Roxburgh. In Southern India, it is found in Coimbatore and various parts of the Madras Presidency: both above and below the ghats in Canara and Sunda, though not common there: abundant in the Dekhan, on the right bank of the Godavery and in Ganjam and Gumsur: also in the Bombay ghats, at Khandalla, and Parr, also in Sylhet and Assam. It is a native of the mountainous parts of the coast of Coromandel, where it grows to be a large tree. Flowers during the hot and rainy seasons and the seed ripens in December and January. The wood of this tree is high colored, hard, durable, and of much use amongst the inhabitants of the hills where it is plentiful. It attains an extreme height of 20 feet, with a circumference of one foot, and the height from the ground to the intersection of the first branch is 8 feet. The tree is held sacred by the hindus in consequence of which it is difficult to obtain the timber, but it is a good fancy wood, and suitable for buildings. The bark and fruit are used medicinally, and the pleasant tasted fragrant flowers are used to make a cooling drink in fevers.—*Drs. Mason, Wight, and Gibson, Voigt, Captains Beddome and Macdonald, Flor. Andh. O'Shaughnessy, p.* 405. *Rohde, M.S.S. Jaffrey. Roxb. iii.* 106.

BIGNONIA CORONARIA. A large tree with white flowers, very plentiful in the Tharawaddy and Pegu districts; it and Bignonia spathoidea, also found throughout the province, both afford from their inner bark material for rope employed for local purposes. The inner bark of Sterculia ramosa also affords a strong and durable rope in common use.—*McClelland.*

BIGNONIA FALCATA, Koen. Spathodea Rheedii: *Spreng.*

BIGNONIA INDICA, *Linn.*

Calosanthes Indica,—*Blume.*
Bignonia pentandra,—*Lour.*

Spathodea Indica...	PERS.	Tat Palangu...	...HIND.
Mulin...	...HIND.	Tat Morang...	
Sori.	,,	Tetoo. ...	....MAHR.

On the Bombay side, this is common near water streams, chiefly below the ghats, but the wood is described by Dr. Gibson as of no value, neither does it, there, ever reach any size. Mr. Rohde says that this is one of the tallest trees on the Coromandel coast where it grows chiefly up amongst the mountains. Flowering time the beginning of the wet season. Seed ripens in January and February. The wood is soft and spongy so much so as to render it unfit for use. It grows in Behar and in the Siwalik hills and immense pods hang from its branches in its leafless state. In the Tenasserim Provinces, it is often seen near the dwellings of the natives; it grows luxuriantly in the cold regions of the Himalaya, and might probably grow in the open air of Europe also. At Lahore there was received from the hills a gigantic pod, not less than half a yard in length and four inches in breadth. The bark and capsules of this tree are astringent and used in tanning and dyeing. Dr. Stewart says that the leaves are called "Sionak" in the Punjab, and are used in medicine. The wood is there, also soft and useless.—*O'Shaughnessy, p.* 480, *Hooker's Him. Jour. Vol. I. p.* 86. *Mason, Powell, Honigberger, p.* 244. *Rohde, MSS. Dr. J. L. Stewart. Roxb. iii,* 110.

BIGNONIA LEUCOXYLON. See Cedar.

BIGNONIA LONGIFLORA. Syn of Bignonia chelonoides.—*Vent.*

BIGNONIA PENTANDRA, LOUR. Syn. of Calosanthes Indica.—*Blume.*

BIGNONIA QUADRILOCULARIS—*Roxb.*

Spathodea Roxburghii.—*Spreng.*

Wurrus. MAHR.

This large tree is found in the higher hilly places of the Concan, the higher valleys of the ghats, Circar mountains, Malabar Hill Bombay, Elephanta, and is very common in Padshapore jungles, in the Southern Mahratta country. It flowers during the beginning of the hot season and its flower is very beautiful. The wood strong, tough, durable, serviceable, both for beams and for planks, is much used as planking for carts and is employed for many purposes by the natives ?—*Roxb. Gibson. Rohde, MSS*„ *Roxb. iii.* 107.

BIGNONIA RADICANS. This ash-leaved trumpet-flower has stems with rooting joints ; flowers in large bunches of a scarlet orange colour : is of easy cultivation.—*Riddell.*

BIGNONIA SPATHACEA—*Linn. fil.*

Spathodea Rheedii, *Spreng.* 118 longifolia, *Vent.*

A tree of the Coast forests.

BIGNONIA SPATHOIDEA. This large tree is found throughout the Tenasserim Provinces. It is plentiful and its inner bark affords a material for rope.—*McClelland.*

BIGNONIA STIPULATA.—*Roxb.*

Spathodea stipulata.— *Wall.*

Pha bhan of Akyab.	Ma shoay of Moulmein.
Ka-mhoung „	

Stipuled trumpet-flower tree with a long twisted pod. It is a common flowering tree throughout Tenasserim, common at Moulmein and the flowers are often seen in bazaars where they are sold for food. The tree enters the native materia medica, as affording a cure for psora. The tree of Moulmein is said to afford a strong wood for any ordinary purpose, and in Ayab, where the natives make a spirituous liquor from the bark, it is small, very plentiful, and its wood used by natives for bows, &c. Dr. McClelland describes it as affording a strong, very dense and most valuable wood for purposes requiring strength, elasticity and density.—*Drs. Mason, McClelland, Cal. Cat. Ex.* 1862.

BIGNONIA SUAVEOLENS.—*Roxb.*

Stereospermum suaveolens.— *W. Ic.*
Tecoma suaveolens.—*G. Don.*

Paml... ...	...BENG.	Parul...	...MAHR.
Patulee...		Bhita padari ?	... SANS.
Parool...	.... „	Krishna vrinta	... SANS.
Padul...	... „	Patali	...SANS.
Padal...	... „	Kalagoru...	... „
Sammi...	...HIND	Kuberakoshi,	.. TEL.
Sammu...	... „	Padari...	... „

This middle sized tree is quite different from B. chelonoides. It grows in the Dandelle forest above the ghats, in Canara and Sunda. It occurs; though not very common, in Ganjam and Gumsur, where it attains an extreme height of 20 feet, with a circumference of 1½ feet, and the height from the ground to the nearest branch is 12 feet. A native of the southern parts of the Coromandel coast ; it also occurs in the Dekhan, Bengal, in Sukanuggur, Gorukpur, and the Kheree jungle, in Dehra Dhun and Kangra. It has large, dark, dull crimson flowers. Its wood is very similar to B. chelonoides, but of a redder hue elastic and long grained ; used for buggy shafts, plough yokes, &c. The bark is employed medicinally, -- *Voigt. Dr. Gibson, Captains Beddome and Macdonald. Rohde, MSS., Powell. Hand-book. Econ. Prod. Punjab. Roxb. iii.* 104.

BIGNONIA SUBEROSA—*Roxb.*

Millingtonia hortensis.—*Linn. fil.*

Indian Cork tree . ENG.	Akas Nim... HIND.
Neemi Chambeli. HIND.	Cork maram. ANGLO-TAM.

This very handsome tree is common in gardens of India. It grows in Tanjore, Madras, Segaon, between Ava and Taong Dong. In January the tree is covered with beautiful and fragrant pure white blossoms. It grows with great rapidity, sending out numerous suckers, from which it may be easily raised. It is a good tree for planting in avenues. The rough bark peels off in small pieces about once a year. It is deeply cracked and spongy and an inferior sort of cork can be made from it. The wood is soft, and can only be of use for firewood, the bark is very cork-like.—*Dr. Cleghorn in M. E. J. R., Voigt. Powell. Hand-book. Econ. Prod. Punjab, p.* 569. *Roxb. iii.* 111.

BIGNONIA UNDULATA—*Roxb. iii.* 101.

Tecoma undulata.—*G. Don.*

Wave-leaved Bignonia. ENG.	Rukt Reora....MAHR.
Bohira Reora..... ...HIND.	Khew... ...SINDI.

A tree with drooping branches like the weeping willow leaves covered with micaceous scales ; flowers in lateral racemes, very large, orange coloured, and scentless. Dr. Gibson says it is rare in the Bombay forests, but is found in the northern parts of Baglan and in Kandesh : it is more common in Sind, in some of the valleys of the Pubb Hills, and at Shah Bilawul : yet Voigt says it is abundant in one locality of Kandesh, and that it occurs in Guzerat. It is very common in Marwar and other parts of Rajwarra, and when covered in the month of March with its immense quantities of orange coloured blossoms, it is a most splendid object and would be highly ornamental in compounds, the wood is fine grained and valuable, having a scent like the walnut leaf. The wood is reckoned very strong and durable, but from its size, applicable only to small purposes.—*Dr. Irvine, Gen. Med. Top. p.* 200, *Dr. Gibson.*

BIGNONIA XYLOCARPA, *Roxb. iii.* 108.

Tecoma xylocarpa, *G. Don.*

Ghan seng... ...CAN.	Vadenkurni maram. TAM.
Khurseng... ...MAHR.	

This large tree has been noticed by Dr. Wight as growing in Coimbatore. It is found, also, though rare, in the Godavery forests, but grows on the Neilgherries, in the Thull-ghaut, Jowar jungles, hills about Nagotnah, jungles about Ratnagherry and on the Parr ghat. Dr. Gibson says it is common in the forests both inland and on the coast, and that it may be easily distinguished by its peculiar rough pods, two feet or more in length. The wood is never large, is very hard and good if ripe; of a brownish yellow colour, rather close-grained, takes a good polish, is used in turnery and in cabinet making. It also affords an oil, obtained by a simple process of reverse distillation, and said to be of great efficacy in cutaneous affections. *Drs. Wight and Gibson, Captain Beddome.*

BIHI-DANA. PERS. HIND. GUZ. TAM Seeds of Cydonia vulgaris, (Pyrus cydonia,) Quince seed, from Bihi. PERS. Cydonia vulgaris, the Quince. There is a "tursh" or bitter and "shirin" or sweet, quince.

BIHISHTI, HIND. A water-carrier who conveys it in a skin over his back. The word seems to be derived from Bihisht, the paradise of the mahomedans.

BIHUL, in L. 75° 41′ E. and L. 28° 39′ N.

BIH RECHNI, HIND. Euphorbia dracunculoides.

BIHULL. The inner bark of Grewia oppositifolia, employed in the Himalaya for making ropes.—*Royle.*

BIJ, HIND. also Binj, H. seed, any seed, hence bijwar, seed corn. "Bij Band," HIND. is the Sida cordifolia, and Rumex acutus. "(Kamud) bij," HIND. is Nymphæa alba. "Suka-ki-bij," HIND. is the Cannabis sativa. "Bij-gai," HIND. is the Lonicera quinquelocularis.

BIJAPOOR. The seat or capital of the mahomedan Adăl Shahi dynasti, which ruled there from A. D. 1501 to A. D. 1660. Yusuf Khan, a son of Amurath II. of Anatolia, was purchased, in 1499, at Ahmedabad, for the Bijapoor Body Guard. But in 1501, he assumed independence, under the title of Adal Shah. The territories over which this dynasty ruled varied considerably, in extent, as the Nizam Shahi of Ahmednuggur and the Bahmani kings of Beder pressed on them. The successive sovereigns were

1501, Yusuf Khan, styled Adal Shah,
1511, Ismail Adal Shah I.
1534, Mulloo Adal Shah
1535, Ibrahim Adal Shah I. In his reign, his minister, Ram Rajah, assumed the throne of Vijyanuggur.
1557, Ali Adal Shah I.
1579, Ibrahim Adal Shah II. in his reign Chand Bibi was regent.
1626, Mahomed. Adal Shah,
1660, Ali Adal Shah II.

The tombs of this family at Gogi and Bijapur are domes on basements. Bijapur was taken by Aurungzeb, and is now in ruins, only inhabited by a few hundred inhabitants. A great brass gun is still on the ramparts of this city, said to have been cast on the 13th December 1685, at Ahmednuggur by a European whom tradition styles Rumi Khan. It weighs 41 tons. See Beejapoor, India, p. 323-4. Jain.

BIJAPURAMU, S. also Madiphala chettu, TEL. Citrus medica, L.

BIJARA SALA, SANS. Nut of Anacardium occidentale.

BIJBAN. The seed of a plant found in all Rajpootanah. It is heating, and used at Ajmere in aphrodisiac prescriptions.—*Gen. Med. Top., page* 126.

BIJBAND, HIND. Polygonum *sp.* also, Sida cordifolia.

BIJH-GAH, HIND. A scare crow.—*Elliot.*

BIJHONIA. A tribe of rajputs in Jounpur Zillah.—*Elliot.*

BIJI, HIND. Mongoose; Herpestes.

BIJI, HIND. Emblica officinalis.

BIJIANAGAR, also written Vijianagar, properly Vidia-nuggur or the town of learning; was founded in the reign of Mahomed Toghalak according to one account, by two fugitives from Telingana: according to Prinsep, in 1338 by Bilal Deo, of Karnata, who resisted Mahomed Toghalak, and founded Vijianuggur. In 1347, Krishna Rai, ruled there: in 1425, Deva Rai: in 1478, Siva Rai. Vijiyanuggur was the seat of the last great hindu empire in India. The sovereigns claimed to be of the Yadu race. In the latter part of the 16th century they granted to the E. I. C. the tract around Madras, engraved on a gold plate, which was lost in 1746 when Madras was captured by the French, under Labourdonnais. Towards the fifteenth century it was the capital of a great hindu power which ruled over the hindu chiefs to the south of the territories of the Adil Shahi, Nizam Shahi and Kutub Shahi kings of the Dekhan. In the middle of the 16th century, these three mahomedan kings, fearing the growing power of Ramarajah, the sovereign of Bijianuggur, made war against him, king Rama was then in his 70th year. He met the confederates at Talicottah on the 25th January 1565 with a great army of 70,000 horses, 90,000 feet, 2,000 elephants and 1,000 pieces of cannon, but he was defeated with a loss of 100,000 men, and was taken prisoner. The authors Khafi Khan and Shahab-ud-din, state that the elephant on which he was mounted ran away with him into the confederate camp. He was beheaded at Kala Chabutra in the Raichore doab, and his head remained for 200 years at Bejapore as a trophy. Bijanuggur sank into an insignificant place, and is now known as the ruins of Humpy. The rajah's brother, however, took refuge in Penicondah, and subsequently at Chandargiri, whence it is, also, said the English merchants obtained the grant of the ground on which Madras was built.—*Wh. H. N. I.*, *p* 459. See Humpee, Bejapore.

BIJION, Burm. In Amherst, a timber used for house posts, rafters, and the like purposes it is a heavy, compact, grey, close-grained wood. —*Captain Dance.*

BIJNORE. A town of Rohilcund.

BIJNUGUR. See Kurumbar.

BIJOLI. The Rao of Bijoli, is one of the sixteen superior nobles of the Rana of Mewar's court. He is a Pramara of the ancient stock of Dhar, and perhaps its most respectable representative. There is an ancient inscription at Bijoli. See Lat.

BIJUCO. A fibre exhibited from Manilla in the Exhibition of 1851. Its source is not known.

BIJWARRA, in L. 76° 41′ E. and L. 22° 46′ N.

BIYU, Bali. Plantains.

BIZCOCHO also Galletta. Sp. Biscuits.

BIKANEER, in L. 72° 20′ E. and L. 27° 56′ N. is the chief town of an independent sovereignty, chiefly in the great Indian desert. It has an area of 17,676 square miles, with the population estimated by Tod in the beginning of the 19th century at about 539,000, the revenue is about six lakhs of Rupees. Bikaneer maintains a force of 2,100 cavalry, and about 1,000 infantry and 30 guns. Bikaneer was originally inhabited by various small tribes of Jats and others, the quarrels among which led to the conquest of the country in 1458 by Bika Sing, a son of rajah Jodh Sing of Jodhpore. After consolidating his power he conquered Bagore from the Bhattee of Jessulmere and founded the city of Bikaneer; he died in A. D. 1505. Rai Sing, the fourth in descent from Bika Sing, succeeded to power in 1573, and in his time the connection of Bikaneer with the Delhi Emperors began. Rai Sing became a leader of horse in Akbar's service and received a grant of fifty-two pergunnahs including Hansi and Hissar. The earliest treaty with the British Government was in 1801. Sirdar Sing succeeded to power in 1852. He did good service during the mutinies both by sheltering European fugitives and by co-operating against the rebels in the districts of Hansi and Hissar. He received a salute of seventeen guns and the right of adoption. The people most numerous are the Jit and the territory was once populous and wealthy, but the plundering Beedawat bands, with the Sahrai, the Khasa and Rajur robbers in the more western desert so destroyed the kingdom, that while formerly there were 2,700 towns and villages in Colonel Tod's time, not one-half of these remained. Three-fourths of the population are the aboriginal Jit, the rest are their conquerors—the descendents of Bika, including Sarsote (Saraswati) brahmans, Charuns, bards and a few of the servile classes.—*Tod's Rajasthan, Vol. I, p.* 420, *Vol. II. p.* 98. *Prinsep's Antiquities, p.* 259. *Aitchison's Treaties, Vol. IV. p.* 147. *Elphinstone's Cabul, p.* 10. See Brahman, Charun, India, p. 327, Jit, Rajput.

BIKEEAKEE SYN. in L. 79° 16′ E. and L. 29° 42′ N.

BIKH; Bikhma; Bish; Vish; Visha and Ata visha, the names of a powerful vegetable poison. Dr. Wallich refers the plant to the Aconitum ferox; it seems however to be a name given to the roots of several Aconites, for Dr. Hooker, in one part of his journal, mentions that he met with Aconitum palmatum, which yields one of the celebrated "Bikh" poisons. Bikh, he adds, is yielded by various Aconita. All the Sikkim kinds are called "gniong" by Lepcha and Bhoteea, who do not distinguish them. The A. napellus he says is abundant in the north-west Himalaya, and is perhaps as virulent a Bikh as any species. At another place he mentions that magnificent gentians grow in the Lachoong valley, also Senecio, Corydalis, and the Aconitum luridum, a new species, whose root is said to be as virulent as A. ferox and A. napellus. The result, however, of Dr. Thomson and Hooker's examination of the Himalayan aconities (of which there are seven species) is that the one generally known as Aconitum ferox, and which supplies a great deal of the celebrated poison, is the common Aconitum napellus of Europe. Bikhmaura is also a name for A. ferox. —*Hooker. Him. Jour. Vol. I. p.* 168 and *Vol. II. p.* 108. *Engl. Cyc. page* 455. See Aconitum.

BIKH, Hind. Drugs: medicines; one of the fourteen valuable substances eliminated from the ocean when churned by Vishnu. See Kurma.

BIKKI, Tel. also Konda manga, Tel. Gardenia latifolia, *Ait.* Gardenia inneandra.—*Kon.*

BIKH-MEKEH. Pers. Glycyrrhiza glabra. Liquorice root; properly Bekh-i-mekeh.

BIKNOOR, in Long. 78° 30′ E. and Lat. 18° 14′ N.

BINOXIDE of MANGANESE, Jugni or njni, Hind.

BIKYA. See Aconitina.

BIL, Hind. Bila, Sans. Ægle marmelos, See Bel. Bilva.

BILA. A negro race occupying the southern part of the Malay peninsula, along with the Simang, in the provinces of Quedah, Perak, Pahang and Tringanu. See India, p. 351.

BILUDARI. Author of the Arabic work Fatah-ul-Baldan, in which is described the Conquest of Sind by the Arabs.

BILAIKAND, Hind. Pueraria tuberosa.

BILASPOOR. A town on the banks of the Sutlej in Kunawar. See Kunawer.

BILATEE or Bilati, BENG. An alteration of the persian Vālāyāti, meaning foreign, exotic. The following may be enumerated:

B. anannas, BENG. Fourcroya cantala.
B. amra, BENG. Spondias dulcis.
B. aloo, BENG. Potato, Solanum tuberosum.
B. amlee, BENG. Gamboge mangosteen, Garcinia pictoria.
B. pita-silli, BENG. Common Parsley, Petrosilenum sativum.
B. bagoon, BENG. Tomato or Love-apple, Solanum lycopersicum.
B. mendee, BENG. Myrtle, Myrtus communis

BILAUR, HIND. Rock crystal.

BILAURI, HIND. Polygonum bistorta.

BILDI, HIND. Pharbitis nil.

BILE. ENG.

Pit..................HIND. | Pittam...... ....TAM.

Modern chemists regard bile as a soda-soap; and, as such, that of the ox, or oxgall, is used in the arts, by painters in water colours, scourers of clothes, and many others, but from its green colour it requires, for many purposes, to be clarified or prepared. Prepared gall combines with colouring matters and pigments, and gives them solidity either by being mixed with or passed over them on paper. Mixed with lamp black it forms a good imitation of China ink. It is, also, useful for transparencies, by passing them over the varnished or oiled paper and allowing it to dry. The colour is mixed with gall and then applied, and cannot afterwards be removed. It takes out spots of grease and oil, and is useful to the laundress in washing dresses, the colours of which would, run or be removed by the ordinary process of washing. A small portion dropped into ink renders it fluid.—*Tomlinson.*

BILHARIAH, in Long. 77° 39' E. and Lat 22° 32' N.

BIL-JIMJIM, BENG. Crotalaria retusa.

BILIARY CALCULUS. Gorochana, SANS. Calculus cysticus. See Bezoar.

BILIMBI, BENG. MALAY. The acid fruit of Averrhoa bilimbi.

BIL-JHUNJHUN, BENG. ALSO BIL-JIMJIM. BENG. Crotalaria retusa. Spreading mustard.—*Linn.*

BILKER in L. 81° 50′ E. and L. 25° 43′ N.

BILINGU. A district of Banca. See Tin.

BILIN, HIND. Feronia elephantum.

BILITSHI, HIND. of Lahaul, Ribes nubicola; R. glacialis and R. glossularia, currant and gooseberry.—*Powell.*

BILLAIN-LENA, HIND. A custom in India amongst the women of the mahomedans. A woman sweeps her open hands along the outline of the body of another person from the head downwards—then presses the backs of her fingers against her own temples. The ceremony is intended to represent that the performer takes on herself all the evils that may befall the other. See Hindoo. Sacrifice.

BILLA JUVVI, TEL. Also Emmoduga, —Erra Juvvi, and Nandireka, TEL. Ficus nitida, *Thunb.*—Dr. Wight, considers this to be the same as F. Benjamina, L.—*R. iii.* 550.

BILLAPA, TEL., Trichilostylis globulosa, Nees.—W. contr. 105.—Scirpus glob.—*R. i.* 217.

BILLA SOORGUM. A town in Southern India, where there are caves containing osseous breccia and deposits, described by Lt. Newbold. See Newbold.

BILLI, HIND., A Cat.

BILLICUL LAKE. A small natural water near Segoor on the Neilgherries, 5,700 feet above the sea.

BILLI LOTAN, SANS. Valerian, also, a species of Melissa or Nepeta; N. ruderalis. The words mean Cat-rolling, from the circumstance that cats roll amongst these plants.

BILLITON ISLAND, in its southern point, is in Lat. 3° 23′ S. It is surrounded by islands in the Caramata Passage.—*Horsburgh.* See Tin.

BIL-PAT, BENG. Lochennia corchorifolia.

BILLU, also Billu Kurra, also Billudu Chettu, TEL. Chloroxylon Swietenia, —*W. and A.* 407.—*R. ii.* 400; [illegible] 64. Karra in Telugu means wood, Ch[illegible] means a tree.

BILLU GADDI, V. Rellu Gaddi, TEL. Saccharum spontaneum, L—*R. i.* 235.

BIL-LUTA, BENG. Pogostemon plectranthoides.

BIL-NALITA, BENG. Corchorus fascicularis.

BILODAR, HIND. Biddoja. HIND. Falconeria insignis.

BIL-RAI, BENG. Sinapis patens.

BILLSEEAGUR, in L. 85° 11′ E. and L. 22° 48′ N.

BILSEN-KROUT, GER. Henbane seed.

BILU, BURM. The Bilu, in the Burmese buddhist myths, are the equivalents of the hindu Rakshasa. They are generally, howev[illegible] described as engaged in some humourous [illegible] chief.—*Yule's Embassy, p.* 27.

BILUCHISTAN. The country of the [illegible]luch tribes. See Beluchistan Affghan, Bozd[illegible] Hindu, India, p. 308, Jut, Kakar, Kelat; S[illegible]riani, Tajak.

BILVAMU, S. Ægle marmelos is [illegible] to Mahadeva: he alone wears a chap[illegible] of its flowers, and they are not offered in sacrifice to any other deity; if a pious Saiva hindu should see any of its flowers fallen on the ground, he would remove them reverently to a temple of Mahadeva. See Maredu : Kali.

BILVUBTHITHA MARA, CAN. Feronia elephantum.

BILWA, HIND. Ægle marmelos. See Bilva. Ægle. Kali.

BIMA. One of the three peoples speaking distinct languages current in the island of Sumbawa. Their alphabet, once distinct, has been displaced by that of the Celebes. See India, pp. 356-359.

BIMAK KABULI, HIND. Myrsine africana.

BINB OR VIMBA, SANS. Bryonia grandis.

BIMB. Abyssinian, Bruce thought that this might be the creature which is alluded to in Scripture, as the plague of flies. See Tsal-tsal, Tsal-tsai, Tse-Tse.

BIMBA. A race who occupied the rugged mountains along with the Kukha. They were under the Sikh rule, but are shiah mahomedans.

BIMBASARA. King of Magadha, B. C. 578, reigned 52 years. He was first of the house of Bhattya, and was murdered by his successor—this dynasty from B. C. 578 to B. C. 447, in succession being parricides. See Bhattya ; Vindusara.

BIMLIPATAM. A seaport town in India, in Long. 83° 33' E. and Lat. 17° 52' N. It has an open roadstead with a small river. It is on the eastern side of the Peninsula of India. The Dutch had a factory there which was plundered by the Mahrattas in 1754.—*Orme, Horsburgh.*

BINA, HIND. The musk deer.

BINA ALSO BINABI, BENG. Avicennia tomentosa.

BINA. A river in Sagar.

BINAULA, HIND. Seed of the Cotton tree: also the cotton plant Gossypum herbaceum.

BIN BHANTA, SANS. Solanum melongena.

BIMBU, BENG. Great flowered Coccinia grandis or a Momordica.

BINCHA, DUK. Flacourtia sapida.

BIND. A predatory race in Ghazeepur (Qu. Rind ?)

BINDAEEGA, in L. 76° 33' E. and L. 24° 23' N,

BINDAK, HIND. Also Findak, Corylus avellana, the hazel nut.

BINDAKAI, HIND.? TAM.? Sapindus emarginatus ; Soap nut.

BINDAL, HIND. Momordica echinata.

BINDERWAR. A Gond tribe who dwell in the hills of Amarkantak, near the source of the Nerbuddah river.—*Coleman, p.* 297. See Go

BINDHAWSIR, in L. 74° 32' E. and L. 27° 40' N.

BINDICK, BENG. Corylus avellana. Hazel nut.

BINDH MADHU, A great temple at Benares, described by Tavernier 1680, destroyed by the emperor Aurungzeb. It was in the form of a St. Andrew's Cross.

BINDRABUN, or Vrindawan, signifying a grove of "Toolsee" trees, is a holy hindoo town situated on the right bank of the river Jumna from over which in a boat, a most picturesque view may be obtained of it, presenting a panorama of great beauty. The circumstance which imparts most to the sacredness of Bindraban, is its having been the seat of the early revels of Krishna, the Apollo of the hindoos ; Mutra having been his birth place. While many a hindoo Anacreon courts the muses with lays dedicated to this youth, prominent in hindoo mythology, minstrels and maids join in soft strains to his praise. Bindraban, among other things, is now noted for the manufacture of pretty toys made of a composition that may be mistaken for mineral. Indeed the vendors pass them off as such, and to enhance their value, declare that they are brought from Jeypoor, where articles of this description and marble toys especially receive a fine finish. The Valabba Charya sect of the Vaishnava hindu have many hundreds of their temples at Mathura and Bindraban. At Benares and Bindraban, the annual dances constituting the Ras Yatra, in commemoration of Krishna and the sixteen Gopi are performed with much display —*Tour of India by French, p.* 214. See Ras Yatra. Rudra Sampradayi.

BINDU-SAROVARA. A name of Lake Mana saravara. See Ganga : Manasaravara.

BINDWILL, in Long. 81° 40' E. and Lat. 23° 45' N.

BENGA DILLAH. The last Talien king.

BINGANIPILLY. A town in S. India in L. 80° 7' E. and L. 15° 13' N. It is he capital of a small principality lying beween Kurnool and Cuddapah. The chief is a Syed. There are diamond washings near.

BINGHAR BIJ, HIND. Asphodelus fistuosus.

BINHAR, in L. 86° 16' E. and L. 20° 6' N.

BINJ, GUZ. HIND. also Bij, HIND. Seed. See Bij.

BINJARA. See Banjara, India, p. 326.

BINJI DOAR. A tract of country in the N. Eastern frontier of India, towards Bootan, in L. 91 East. The language spoken thence to the Kuriapera Doar in 92° is a dialect of the Bhooteah or Thibetan. It is occupied by the Changlo race, a word which means black.

BINLANG. A kind of stones worshipped as emblems of Siva. They are formed at Muheswur, on the Nerbudda, where a whirlpool occurs and rounds and polishes fallen stones into the form of a lingam. See Hindu : Siva.

BIN NELLI, SINGH. Phyllanthus urinaria.

BINNA, HIND. Vitex negundo.

BINNUGE. According to Thunberg, is the name given by the Singhalese to a species of Ipecacuana. There are two kinds, one called Elle Binnuge, the other, which is red, is called Rat Binnuge. The red is reported to be the better. Both are species of Periploca, both creep on the sandy downs, or twine round the bushes which grow in the loose sand.—*Thunberg's Travels, Vol. IV. p.* 186.

BINOULY, in L. 77° 24′ E. and L. 29° 4′ N.

BINOURIA, HIND. A herb with little purple colours, used as fodder.

BINT, ARAB. A daughter, a girl. In Egypt, every woman expects to be addressed as "O lady!" "O female pilgrim!" "O bride!" or, "O daughter!" even though she be on the wrong side of fifty. In Arabia, you may say "y'al mara!" O woman; but if you attempt it near the Nile, the answer of the offended fair one will be "may Allah cut out thy heart!" or, "the *woman*, please Allah, in thine eye!" And if you want a violent quarrel, "y'al aguz!" (O old man!) pronounced drawlingly,—"y'al ago-o-ooz,"—is sure to satisfy you. In India, Ho-ma, O! mother is a usual and acceptable exclamation and the Ma-Saheba or lady mother is a term which the highest in the land would accept. On the plains of Torrento, it was always customary when speaking to a peasant girl, to call her "bella fé," beautiful woman, whilst the worst of insults was "vecchiarella." So the Spanish Calesero, under the most trying circumstances, calls his mule "Vieja, ravieja," old woman, very old woman. Age, it appears, is as unpopular in Southern Europe as in Egypt.—*Burton's Pilgrimage to Mecca, Vol. I. p.* 121.

BINSIN, HIND. Myrsine Africana.

BINTANG. The largest island on the south side of Singapore Strait. Bintang Hill is in Lat. 1° 5′ N. Long. 104° 28′ E.—*Horsburgh.* See Marco Polo, Singapore.

BINTANGOR. A wood of the Malay Peninsula, in general use for planks, masts and spars, &c. It holds the same position in the Straits Settlements that the pine holds in America. It is in the greatest abundance around Singapore, is used in ship building, serving for planks, masts, spars, &c. and is exported in large quantities to the Mauritius, California, &c.—*Exh. of* 1851.

BINTAGON? A large Penang tree; occasionally used for masts. This is probably the Bintangor.

BINTENNE. A town in Ceylon, where hot springs occur. See Hot springs.

BINTULU. A river of Borneo on the banks of which the Kyans dwell. See Kyans pp. 567-8-9.

BINUA. Under this name may be classed the various local tribes, known under the terms, Jakun, Orang Bukit, Rayet, Utan, Sakkye, Halas, Belandas, Besisik, and Akkye. These tribes are regarded by Newbold (Vol. II. p. 382) merely as divisions of the Binua, and sometimes owe their appellations to their chiefs or to the localities they frequent. The term Binua however is not very legitimately used, "orang Binua" literally meaning the people of the country. But it did not appear from enquiries made in many places, that they ever had any distinctive name. The Malays term them "orang-utan" men of the forest, "orang darat liar" wild men of the interior, &c. epithets which they consider offensive, and the Malays generally address them as 'orang-ulu" people of the interior, or rather of the upper part of the river. The Binua people occupy all the interior of Johore properly so called or that portion of the ancient kingdom of that name over which the Tamungong now exercises the rights of royalty. They also possess the interior of the most southerly portion of Pahang. The most definite description of their territory however is, that they occupy the upper branches of the last or most southern system of rivers in the Malay Peninsula, that is of the rivers Johore (the Lingiu and the Sayong) Binut, Pontian, Batu, Pahator, Rio, Formosa (the Simpang, Kiri, Pau, and Simrong, with their numerous affluents) and Indau (the Anak Indau, Simrong and Made), with the country watered by them. By means of these rivers a constant communication is maintained between the families of the Binua on the two sides of the Peninsula.—(*Jour. Ind. Arch. Vol. No. V: page* 246, 1847.)

The lofty Gunong Bermun, nearly 100 miles to the north of the Lulumut group with the mountains which adjoin it, may be considered the central highlands of these tribes. In the ravines and valleys of Gunong Bermun, two of the largest rivers of the Peninsula, the Pahang and the Muar, with their numerous upper tributaries have their source. The Simujong which unites with the Lingi also rises there.

The upper part of these rivers and many of their feeders are occupied by five tribes of aborigines differing somewhat in civilization and language. The Udai (who appear to be the same people who are known to the Binua of Johore under the name of Orang Pago) are found on some of the tributaries of the Muar, as the Segamet, Palungan and Kapi, and in the vicinity of Gunong Ledang. This tribe has less approximated to Malayan habits than the others. The Jakun partially frequent the same territory, the lower part of Palungan, Gappam, &c., and extend northwards and north westward within the British boundaries. The Binua bear a strong family resemblance to the Malay; and it was remarked of many of them, as was previously done of the Besisi, that the difference was scarcely appreciable so long as they remained at rest and silent —(*Journal Indian Archipelago*) The features of all the tribes that fell under Captain Newbold's (ii. p. 388) observation, viz. the Jakun, or Sakkye, the Belanda, the Besisik, the Akkye, and two other tribes from Salangore, bear a common resemblance to the Malay, whose blood has not been much intermingled with that of Arabs or mahomedans from the coast of India. In stature, they are on the whole, a little lower than the ordinary run of the latter. The eye of the Binua surpasses that of the Malay, in keenness and vivacity, as well as in varying expression; nor is it so narrow, nor are the internal angles so much depressed as among the Chinese and Javanese. The forehead is low, not receding. The eye-brows, or superciliary ridges, do not project much. The mouth and lips are large, but often well formed and expressive; the beard is scanty, as among the Tartars. They have the same sturdy legs, and breadth of chest, the small, depressed, though not flattened nose, with diverging nostrils, and the broad and prominent cheek bones, which distinguish that race of men. The round swelling forehead of the Bugi, however, which rises evenly from the cheek bones and gives a distinctive character to their physiognomy, detracts from the resemblance of Binua Malay, which appears to be caused mainly by the almost feminine fulness, smoothness, and symmetry of all the outlines, the absence of angular prominences or depressions, and the pleasing softness and simplicity of the expression, all which are wanting in the Malay. It should be added that the Bugi countenance bears an impress of intelligence, feeling, and sometimes, if it does not belie them, of a genial sensibility and imaginativeness. In many cases the Binua face is fat and fleshy, and all the features heavy, but in general, although full and rounded, it is not fat. The greatest breadth is commonly across the cheek bones, but in several instances where the jaws were prominent, the lower parts of the face was broadest. Many of the Mintira around Gunong Bermun still wear the bark of the tirap, the menusing the Chawat, and the women a piece of rude cloth, formed by simply beating the bark, which they wrap round their persons, and which, like the sarong of the Johore women, reaches only from the waist to the knees. The Udai women wear the Chawat like the males. The only employment at a distance from the ladang which they share with the men, and sometimes pursue by themselves, is angling. Many families have small huts on the bank of the nearest stream where they keep canoes, and men, women and children, usually one in each canoe, are every where met with engaged in this quiet occupation. They have other modes of catching fish. The most common is by small portable traps woven of rattans. Rows of stakes are also used. But the most elaborate engine by which the rivers are sifted of their denizens consists of a large frame work, like the skeleton of a bridge, thrown right across the stream, and at a level some feet higher than the banks so as to be above inundation. A line of stakes is fixed across the bed, an opening being left in the middle. Above this the Binua takes his seat on a small platform, sometimes sheltered by a roof, and suspends a small net in the opening. On this he keeps his eyes intently fixed, and as soon as a fish enters, he raises his net and extracts it. The rivers and streams abound in fifty species of fresh water fish.

At certain periods of the year nearly every man in the country searches for taban, or guttah percha. They use the sumpitan made of bamboo and light bamboo arrows and darts.

The boundary between Pahang and Johore intersects the country of the Binua, the whole of the Anak Indau, and the lower part of the Simrong being in Pahang, and all the other rivers, including the Made, on which they are found, appertaining to Johore. The authority of the Bindahara and the Tamunggong is little more than nominal, the affairs of the Binua being entirely administrated by their own chiefs, each of whom has a definite territorial jurisdiction.—(*Journal India Archipelago.*)

According to Newbold, (Vol. ii. p. 392.) The Binua are divided into tribes, each under an elder, termed the Batin, who directs its movements and settles disputes. In the states of Sungie-ujong and Johole are twelve tribes, consisting of upwards of 1,000 individuals. The [illegible]un he says are extremely proud, and will not submit, for any length of time, to servile offices or to much control. Attempts have been made to domesticate them, which have generally ended in the Jakun's disappearance on the slightest coercion. One of a tribe from Salangore staid with him for some days, but as he had no occasion for his services, the man went back reluctantly to his tribe.—*Newbold's British Settlements, Vol. II. p* 397.

So far as could be ascertained the Burmun tribes have no idea of a Supreme deity, have a simple, and, rational theology. They believe in the existence of one God, Pirman, who made the world and every thing that is visible, and at whose will all thin continue to have their being. Pirman dw above the sky, and is invisible. Intermediate between Pirman and the human race are the Jin,—the most powerful of whom as the Jin Bumi or Earth Spirit, who is Pirman's minister. He dwells on the earth, feeding on the lives of men and of all other living things. It is the Jin Bumi who sends all kinds of sickness and causes death ; but this power is entirely derived from Pirman. Each species of tree has a Jin. The rivers have a spiritual life but it is that of the Jin Bumi, who haunts them with his power. The mountains are also animated by him. He does not, therefore, appear to be entirely a personification of the destructive power of nature, but to be, to some extent, identified with its living force also. There is no religious worship, but to avert death recourse is had in sickness to a Poyang, no other person being supposed to have the right of imploring mercy from Pirman. The Poyang combine the functions of priest, physician and sorceror. A complete parallel exists between the religions of the Dyak, Binua and Batta. The primitive religion of the Archipelago, a variety of the Shamanism, which probably prevailed before Buddhism over all eastern Asia, which lingers around the mosque, and has not entirely faded away in the West in the presence of nearly 2,000 years of Christianity, is still the essential belief of the Dyak, the Binua and the Batta. In it they repose a practical faith. By it they seek to defend themselves from diseases and other misfortunes, to secure the ministry of good spirits, and counteract the maleficence of evil ones. It is one of the living springs of their habitual thoughts and actions, and as such remains a prominent link between the extreme south and the north of Eastern Asia.

Amongst the Bermun tribes we recognize a pure Shamanism with its accompanying charms and talismans ; a living faith fresh from the ancient days of eastern and middle Asia, preserving its pristine vigour and simplicity in the nineteenth century, untouched by the Budhistic deluge which has passed over the vast south eastern regions, and sent so many waves to different parts of the Archipelago ; and resisting the pressure of mahomedanism which surrounds it. The Poyang and Pawang of the Bermun tribes, the Poyang of the Binua the Batta, the Dyak, and Dato and the Si Basso of the Batta, are all the shaman, the priest, wizier, physician, in different shapes. The character of the Binua, the Dyak and the Batta is essentially the same, and may still be recognized in the Malay. The Binua [illegible] development of intellect, and less cor[illegible] the passions. The Batta and Dyak [illegible] outgrown the close pressure of nature, and agglomerated into social masses in which the passions have fermented, and the intellect and imagination been quickened. But these social masses have been small, nature has not been driven back on all sides as in the plains and slopes of Menangkabau. Hence both the Batta and most of the Dyak still preserve the Binua character at bottom ; but, unlike the Binua, they have elaborated their superstitions and their social habits, and have acquired some vicious propensities, such as gambling, which the Batta carry to a mad excess, and the unnatural customs of head hunting and man eating, which are only more startling illustrations of the universal truth, that, without a religion like Christianity, which does not stop at precepts and doctrines but spiritualizes the very springs of action, and fills the soul with the divine idea of the world, virtues and vices, and particularly those which are national, may dwell together in harmony. It is undeniable that the Batta as a people have a greater prevalence of social virtues than most European nations. Truth, honesty, hospitality, benevolence, chastity, absence of private crimes, exist with cannibalism.—*Jour. of the Indian Archipelago, p.* 293. *No. V. November* 1847.—*Newbold's British Settlements, Vol. II. p.* 392. See Batta, Damak, Semang, S[illegible]putan, India, pp. 329-351. Quedah, Taban.

BIOPHYTUM SENSITIVUM D.C. Syn. Oxalis sensitiva. A plant of the Moluccas and of both the Peninsulas of India.—*Roxb. Vol. ii. p.* 457. *Voigt.* 191.

BIPAL.—? Ægle marmelos.

BIR OR VIR. A man, the Latin, vir. Birbani, the term, amongst the Jat, for a man's own wife. A femme couverte.

BIR. A town of Mesopotamia. See Mesopotamia.

BIRA, SANS. A betel leaf made up with areca nut, spices and lime into a small folded packet, and presented to visitors in the hindu and mahomedan houses of India.

BIRA, or Nerasi, TEL. Elæodendron. *Roxburgh, ii. W. and A.*

BIRAGI. See Vairagi.

BIRA KAYA, TEL. Luffa fœtida—*W. and A.* 713.

BIRAMDANDI, HIND. Microlonchus divaricata.

BIRAR, HIND. Zizyphus nummularia.

BIRAT. A town in India, with buddhist inscriptions. See Buddha.

BIRBA, HIND. Terminalia belerica.

BIRBAT, SANS. Coral.

BIRBAT, SANS. Areca nut, spices and lime.

BIRBHUM. A district in India. It lies to the west of Murshedabad, and contains coal and iron. See India, p. 328.

BIRCH TREE. Eng.

Tag-pa...	Bhot.	Brzoza...	Polish.
Berke...	Dutch.	B'hurjia...	Sanskrit.
Bonleau...	French.	Bereza...	Russian.
Birke...	Germ.	B'hurjia...	Slavonic.
B'hurjia...	Greek.	Abedul...	Span.
Betulla...	Italian.	Betulla...	,,
Betula...	Lat.		

The Birch tree is essentially a northern plant. It is found in the N. W. Himalayas and in Japan. The birch, "tagpa," of the Chenab river is usually a crooked and stunted tree, but sometimes exceeds one foot in diameter. The annual bridges over the mountain torrents are made of birch twigs, and the bark is used instead of paper for the draft forest returns.—*Cleghorn.* See Betula.

BIRDS of the South and East of Asia.

Murgh...	Arab.	Murgh...	Hind.
Tair...	,,	Avis...	Lat.
H'net...	RM.	Burung...	Malay.
Churi...	UK.	Manuk...	,,
Oiseau...	Fr.	Paksi...	,,
Ornis...	Gr.	Pâksi...	,,
Ornides (Plur.	,,	Parinda...	Pers.
Vogel...	Ger.	Patchi...	Tam.
Tsippor...	Heb.	Kurvi...	,,
Ait...	,,	Pitta...	Tel.
Chiriah...	Hind.	Pitti...	,,

The birds of India are scarcely less beautiful than numerous. Perhaps the choicest of them all are those of the Himalayan pheasant tribe, birds distinguished for their very graceful and rich plumage and the beautiful paradise birds of the Eastern Archipelago. The Himalayan bustard is remarkable for its form and varied colour. Peacocks, eagles, falcons, vultures, kites, cranes, wild geese, wild fowl, snipes, bustard, parrots, and parroquets, the latter in every conceivable variety, abound in India at various seasons.—In England, on the return of spring,

> "Every copse
> Deep tangled, tree irregular, and bush
> Bending with dewy moisture o'er the heads
> Of the coy quiristers that lodge within,
> Are prodigal of harmony,

but, in the tropics generally, there are few Europeans who will dare the sun to search for the beauties of Nature ; as a rule, the natives of E. and S. of Asia do not pay any attention to natural phenomena, and comparatively little is known of the songs of birds. Few can say with the rustic poet Clare,

> "I've often tried when tending sheep or cow,
> With bits of grass and peels of oaten straw,
> To whistle like the birds. The thrush would start
> To hear her song of praise and fly away;
> The blackbird never cared, but sang again ;
> The nightingale's pure song I would not try,
> And when the thrush would mock her song, she paused
> And sang another song no bird could do.
> She sang when all were done, and beat them all."

The Birds of Eastern and Southern Asia have been described by many naturalists. In 1831 a Catalogue of birds collected by Major Franklin, on the banks of the Ganges and the Vindhian range of mountains was published in the Proceedings of the Zoological Society of London. This comprised 156 species, of which more than 20 were described for the first time, many of them very common birds, as Otis bengalensis, Timalia, Chatarrhœa, Alauda gulgula, Mirafra phœnicura, &c., &c. Notwithstanding the difference of latitude in which these were collected, there are only 6 or 7 which Dr. Jerdon has not since met with in Southern India, which shows the very great similarity of the ornithology of India throughout. But this similarity continues to the birds of the Indo-Malay region, viz., the Western part of the Archipelago, which also have a close resemblance to those of India. There is not a single family group peculiar to Indo-Malaya and there are only fifteen peculiar genera, but, as might be expected, a very large portion of the species are quite distinct. There is more similarity between the Burmese, Siamese and Malayan countries and Indo-Malaya, than between India and the Archipelago. Of such well known families as the woodpeckers, parrots, trogons, barbets, king fishers, pigeons and pheasants, some identical species spread all over India, and as far as Java and Borneo and a very large proportion are common to Sumatra and the Malay Peninsula. In the Eastern Islands of the Archipelago, which Mr. Wallace designates the Austro-Malayan Group, in which he includes New Guinea 1,400 miles long and 400 broad, and its adjacent islands, its land birds belong to 108 genera, of which 29 are exclusively characteristic of it ; 35 belong to New Guinea, the Moluccas and N. Australia. About one half of the New Guinea genera are found also in Australia, and about one-third in India and the Indo-Malay Islands. In the birds of New Guinea are two species of Eupetes, a Malayan genus ; two of Alcippe, an Indian and Malay wren like form ; an Arachnothera, quite resembling the spider catching honey suckers of Malacca, two species of Gracula, the Mainahs of India, and a little black Prionochilus allied to the Malayan form.—(*Wallace, Vols. I. & II., pp.* 143, 263, 264.)

In 1832 a catalogue of birds, collected by Colonel Sykes in the Bombay presidency, was also published in the Proceedings of the Zoological Society of London. In this are enumerated 226 species, of which above 40 are described for the first time, many of them common and abundant birds. This catalogue was undoubtedly the most valuable enumeration of the birds of India published, and contains descriptions, with many highly interesting observations on the habits, food and structure of many of the species. Of those enumerated by Colonel Sykes there are about 9 or 10 which Dr. Jerdon, when writing in 1839, had not observed, most of which are probably peculiar to the more northern portion of the range of ghauts and neighbouring table-land. In that year, Dr. Jerdon published a catalogue of the Birds of the Peninsula of India, arranged according to the modern system of classification; with brief notes on their habits and geographical distribution, and descriptions of new, doubtful, and imperfectly described species. The total number of this catalogue was nearly 390: which, however, included 10 of Colonel Sykes' and nearly as many more observed by Mr. (now Sir) Walter Elliot, of the Madras Civil Service, who placed valuable notes on birds procured by him at Mr. Jerdon's disposal; by which, in addition to the new species added, this naturalist was enabled to elucidate several doubtful points, to add some interesting information on various birds, and to give the correct native names of most of the species. Subsequent to this, Dr. Jerdon published a series of supplements to his catalogue of Birds, correcting some points and adding others; and those were followed by a paper from the pen of Lord Arthur Hay. Mr. B. Hodgson of Nepaul, furnished a large amount of valuable information on the ornithology of the Himalaya, General Hardwick's labours were of great value, Captain Tickell of the Bengal Army has also contributed largely to our stock of knowledge regarding the ornithology of Central India and the other names who may be added to this list of naturalists are Captain J. D. Herbert who collected in the Himalaya, Dr. N. Wallich, who collected in Nepaul, Dr. McClelland who added birds from Assam and Burmah, Dr. W. Griffith whose collections of birds were made in Afghanistan, Dr. Hugh Falconer in N. India, and Captain (now Colonel) Richard Strachey in Kamaon and Ladakh. The birds of the Tenasserim provinces have been largely described by the Reverend Dr. Mason, and those of Ceylon by Dr. Kelaart. These were followed by a continued series of valuable articles from Mr. Blyth, who was constant in his pursuit of science. Dr. Horsfield and Mr. Moore's catalogue of Birds in the India House Museum appeared in 1856 and 1858, and Jerdon's Birds of India printed in 1862 and 1864 have done much to complete our knowledge of this class of the animal kingdom. The forthcoming comprehensive work of Mr. Allan Hume, C.B., will embrace all that previous writers on the birds of British India have described. Eastwards, from the Malay Peninsula into the Eastern Archipelago, the labours of Dr. T. Horsfield, in Sumatra, Sir T. Stamford Raffles in Java, Mr. G. Finlayson, Dr. Helfers Dr. Theodore Cantor, Professor Bikmore and Mr. Alfred Russel Wallace have given to Europe a very full knowledge of the birds of that extensive region.

The Israelites classed birds as clean and unclean, and in common life this arrangement may be said to be still followed. A scientific classification of birds, has been given under the title Aves. Amongst authors they are generally arranged into six orders, viz.:

I. Raptores, Birds of prey.
II. Insessores, perching birds.
III. Gemitores, pigeons.
IV. Rasores, game birds.
V. Grallatores, wading birds.
VI. Natatores, swimming birds.

The latest scientific writer on the birds of India, is Dr. Jerdon. He describes birds as vertebrate animals, warm blooded, oviparous, with lungs, a heart with two ventricles and two auricles; their anterior limbs in the form of wings; their body clad with feathers; their bill covered with a horny substance, and many of their bones hollow. He tells us that most birds moult or change their plumage, once a year only, after the season of pairing or incubation, but certain families or tribes of birds have two moults one of them immediately before pairing and the plumage then becomes showy and gay, with tufts or plumes. Some birds in spring actually change their colour, or portions of their feathers are changed as in the ear tufts of the lesser florikan or Otis aurita. The male of birds is the more highly coloured, except in birds of prey, the painted snipe (Rhynchea) and some species of Ortygis the little bustard quail. A few of the gallinaceous birds are polygamous, and their males are very pugnaceous. The nests of birds greatly vary. Those of the weaver bird, tailor-bird, honey-sucker and oriol are made with much art. The edible nest of the colocasia swallow is fo in caverns, of inspissated saliva: swallo swifts, bee eaters and weaver birds build in co panies: certain ducks breed on cliffs or tre and they must carry their young to the wat though this has not been observed. Megapodidæ, gallinaceous birds (says Mr. lace, Vol. I. p. 156), found in Australia, surrounding islands, and as far west as the Phillippines and the N. W. of Borneo, bury their eggs in sand, earth or rubbish, and leave them to be hatched by the sun or by fermentation. They have large feet and long curved claws, and most of them rake together rubbish, dead leaves, sticks and stones, earth and rotten wood, until they form a mound often six feet high and 12 feet across, in the middle of which they bury their eggs. The eggs are as large as those of a swan, and of a brick red colour, and are considered a great delicacy. The natives are able to say whether eggs be in the mound and they rob them eagerly. It is said that number of these birds unite to make a mound and lay their eggs in it, and 40 or 50 eggs are found in one heap. The mounds are found in dense thickets. The species of the Megapodiinæ in Lombok is as large as a hen, and entirely of a dark hue with brown tints. It eats fallen fruits, earth-worms, snails, and centipedes, but the flesh is white and well flavoured when properly cooked.—*(Wallace, p.* 156.*)*

In winter, many Indian birds assemble in large flocks. Amongst these are crows, starlings, finches, larks, parrots, a few thrushes, pigeons, rock pigeons, cranes, ducks, flamingoes and pelicans. Birds are chiefly guided by instinct.

The migratory birds of India are mostly residents of the colder northern countries; they come to India in September and October and leave it again, in March, April and May. Among the grallatores or waders, some cranes and storks, four-fifths of the ducks, and the great majority of the scolopacidæ breed in the north and come to India in the cold season. The peregrine falcon, the true hobby, the kestrel, the British sparrow hawk, all the Indian harriers and the short-eared owl are true migratory birds. Amongst the insessores, the wagtails, some of the pipits and larks, stonechats, several warblers, and thrushes, buntings and the shrike, hoopoe and two starlings are the chief groups amongst which migratory birds occur. In Lower Bengal, kites quit Calcutta and neighbourhood during the rains and return in the cold weather, it is supposed that they go the N. East. The kestrel, baza and Indian hobby are most frequent in Bengal during the rains, and in the rains, the Adjutant visits Calcutta and leaves in the cold weather. The European quail is the only real migratory bird of the gallinaceæ, but some other quails, bustard-quails and rock partridges, Pteroclidæ, wander about to different localities, and the Otis aurita, Ardea bubulcus, some rails, terns and gulls also wander. These birds travel with wonderful instinct direct to their homes, returning year after year to the same spot, often to the same nest. The song of birds is chiefly observed amongst the Merulidæ, Saxicolinæ, Sylviadæ, larks and some finches. In India there are few songsters in the groves, but some of the larks are kept in cages. Quails, bulbuls and cocks are trained to fight, falcons and hawks to hunt on the wing and pelicans and cormorants to fish.

In the 55th No. of the Calcutta Review, it is remarked that "few persons, other than professed zoologists, have an idea of the extent to which the feathered inhabitants of the British islands are found in Southern Asia, identically the same in species. In general, so limited are the opportunities which an ordinary Indian life allows for field observation, that the only familiar reminiscence of home which a European sojourner in the plains of India will recall to mind, among the feathered tribes of this country, is afforded by the pretty, little, clean-looking, sprightly Water Wagtail, usually the first and most welcome harbinger of the coming cold weather, and remaining with us so abundantly whilst the cold season lasts. This bird, and the harsh chattering of a very common kind of shrike (Lanius superciliosus) in Indian gardens, are regularly the earliest intimations that most of us receive of the coming change of season; but a snipe (Gallinago stenura) precedes them which, (though few sportsmen discriminate it from the common British snipe, makes its appearance somewhat later,) is nevertheless a different bird, at once distinguished by having a set of curious pin-feathers on each side of its tail, whereas the British snipe, (which is equally abundant with us) has a broad fan-shaped tail, as unlike that of the other as can well be. The pin-tailed is the common snipe of the Malay countries and is unknown in Europe, excepting as an exceedingly rare straggler from its proper habitat the East. But the [illegible] snipe is unobserved save by the many who delight in exercising their skill in shooting it, or who look [illegible] der to see it so soon in the provision-[illegible] all and our little piebald friend the water wagtail, in its season, and the common sparrow, at all seasons, so abundant as to be overlooked and forgotten, are probably all that the European reader, unversed in the study of ornithology, will be able to recall to mind, as yielding associations of home; unless, perchance, he may also recollect the common small Kingfisher of India, which differs from the British bird only in its more diminutive size. A writer has described the feelings of delight expressed by one who had been many years in India, at seeing, upon his return to his native land, the Sky Lark rise from the sod at his feet, and mount higher, and still higher, till reduced to a mere speck in the heavens, or utterly lost to view, all the while making the air ring with its music. Had he ventured forth into the fields of any part of India, he would have seen and heard the very same; although the species (Alauda malabarica) is different, and may be somewhat inferior to the European sky lark in song, so far at least as regards variety in the notes; but there is really so very little difference, that the two birds could assuredly not be distinguished by the voice alone, nor by the mode of flight. If examined, the common Indian lark may be described as resembling the European Wood Lark in size and shape, with the plumage of the Sky Lark. It may, indeed, be remarked that even the pied wagtails of India (Motacilla luzoniensis and M. dukhunensis) are specifically different from those of Europe (M. alba and M. Yarrellii), however similar in appearance and habits; but the Grey Wagtail of Britain (Calobates sulphurea) is identically the same in India and Java, and a specimen has been seen in a collection from Australia. This delicate little bird, so clean and bright in its appearance, is of very general diffusion over Southern Asia during the cold season, being indeed much commoner than in Britain. The most abundant lark, however, on the plains of Upper India and table land of the Peninsula, is the Chandul or Crested Lark, (Galerida cristata), which is also a European species, though of rare occurrence in Britain; and the song of this bird, also its mode of delivery of it in the air, are not very unlike that of the Sky Lark, although it does not soar to so lofty an altitude. The community of species among the birds inhabiting or visiting India and the British islands is most remarkable among the diurnal birds of prey, and, as might be expected, among the wading and swimming tribes; but as these are mostly rare in Britain, and do not fall much under common observation, their presence in India fails to convey any sort of reminiscence of home. The relentless persecution by gamekeepers has now very nearly extirpated, as a permanent inhabitant of Britain, that fine handsome bird, the common European kite (Milvus regalis); though, were it as numerous in England now as in the days of the Tudors, the Scavenger Kites of India (M. Govinda) might help to remind the British exile in this country of his distant home in the west. But whatever may be the amount of British species of birds actually obtained, in Lower Bengal for instance, there is nought in the ensemble of the various birds under daily observation in Eastern and Southern Asia, to remind us of the present familiar ornithology of Great Britain. In Bengal, the newly-arrived observer from that region will particularly be struck with the number of birds of large size which he sees everywhere, even in the most densely populated neighbourhoods; flocks of vultures, huge 'Adjutants' in their season, swarms of kites in their season too, for they disappear during the rains,—and all three soaring and circling high in air as commonly as at rest,—Brahmini kites, various other birds of prey, among which four kinds of fishing eagle, including the British Osprey, are not uncommon,—water-fowl in profusion in all suitable localities, Herons especially of various kinds very abundant,—several sorts of Kingfisher, mostly of bright hues, the common Indian Roller, also a bird of great beauty, and the little bright green Bee-eater (Merops viridis) conspicuous everywhere,—the common crow of India, of unwonted familiarity, impudence, and matchless audacity,—the different Mainas remarkable for their tameness, the Drongo or 'King Crow,' the Sat-bhais (or 'seven brothers') with their discordant chattering, two sorts of melodiously chirruping Bulbuls, the bright yellow 'Mango-bird' or Black-headed Oriole, the pretty pied Dhyali, the only tolerably common sylvan songster worthy of notice, the brilliant tiny Honey-suckers—also with musical voices, the lively and loud Golden-backed Woodpecker, and two monotonously toned species of Barbet,the pleasingly coloured Rufous Tree-magpie (*Dendrocitta rufa*), the noisy koel, remarkable for the dissimilarity of the sexes,and for parasitically laying in the nests of the Crow;' the Crested Cucoo (*Oxylophus*) during the rainy season (parasitical upon the *Sat-bhais*), with other *cuculine* birds, especially the Coucol or Crow-Pheasant,' another noisy and conspicuous bird wherever there is a little jungle; and last, but not least characteristic, in Lower Bengal, is the harmonious cooing of two or more kinds of Dove, soothing to repose and quiet, and the loud screaming of flocks of swift-flying green Parakeets, with sundry other types all strange to the new-comer. While he misses the familiar types of home, the various Thrushes, Finches, Titmice, &c., which are feebly or not at all represented in the ordinary observed ornithology of the Bengal part of India: the bright little *Iora* may perhaps seem to represent the Titmice, and the tiny 'Tailorbird' the wren; while the northern forms of Finches are replaced by the *Baya* or 'Weaverbirds,' with their curious pensile nests and the diminutive thick-billed *Munia*: but a stranger will be struck with the prevailing silence of the jungle, and the paucity of small birds even in the cold season, so different from the woods and gardens and hedge-rows of Britain, teeming with small feathered inhabitants, among which are so many pleasing songsters of all degrees of merit: of the swallows, occasionally and somewhat locally, a few of the *Hirundo rustica*, may be seen chiefly over water, and young birds of the past season; and along the river-banks, where high enough, the small Indian Bank Martin (*H. Sinensis*) will occur abundantly; but the swallows are replaced by two non-migratory swifts, the common House Swift (*Cypselus affinis*) and the little Palm Swift(*C.balasiensis*). The Roller and the 'King Crow' habitually perch on the telegraph wire to watch for their insect prey: the former displaying his gaily painted wings to advantage, as he whisks and flutters about, regardless of the fiercest sun. The small white Vulturine bird, *Neophron percnopterus*, the 'Rachamah' or 'Pharaoh's chicken,' is abundant and has been introduced as British, because a single pair has been known to stray so far beyond its ordinary haunts. Of the smaller British land-birds only few occur, and these are mostly rarities in the west; but the Wryneck is not uncommon, though little observed, and the European Cuckoo will now and then turn up, more frequently in the barred plumage of immaturity; the Hoopoe, too, is common, but is much too rare in England to awaken a reminiscence, and so with others. Of course we allude to the cold season, and to birds in their winter quarters. Among the hawks, the Kestrel will occasionally be observed in extraordinary abundance; and Harriers (*Circus*) are often seen beating over the open ground; but the small waders are particularly common in all suitable places, including most of those found in Britain, in greater or less abundance. It would be tiresome to particularrize further. But wonderful is the number of fishers, and vast indeed must be the consumption of their finny prey. Otters (*Lutra nair*) among the mammalia, but no Seals; and of birds, sundry fishing Eagles, and a great bare-legged fishing Owl, with various Kingfishers in abundance, numerous kinds of Heron in surprising numbers, Pelicans, Darters (*Plotus*), Pygmy Cormorants, and Grebes or 'Dabchicks;' besides Gulls, Terns, and rarely Skimmers (*Rhynchops*). Gulls, however, are less numerous than in Britain; but three species, the common British *Larus ridibundus* and a nearly affined species, with the fine *L. icthyaetus* are seen chiefly towards the mouths of the Gangetic rivers. Over the salt water lake near Calcutta, has been seen a very uniformly scattered flight of the great White Egret, so prized at home. The Gull-billed Tern is there one of the common birds, and the Whiskered Tern (*Hydrochelidon leucopariea*), replacing the Black Tern of the Kentish marshes; and the Peregrine Falcon may not unfrequently be seen, well meriting the name of 'duck Hawk' bestowed on it in North America: also great flocks of Longshanks (*Himantopus*) wading and seeking their subsistence in the expanse of shallow water. Along the reed-fringed *nullahs* or water-courses, the muddy banks are honeycombed with the footsteps of wild Pigs of all sizes, and various *Rallidæ* are swarming around, as the numbers of them captured in trap-cages abundantly testify. Passing from the delta of Lower Bengal, no matter in what direction, a considerable replacement of species may be observed, characteristic of the fauna of Behar and of the plains of Upper India to the west and north, and of the Burmese countries eastward: in the sub-Himalayas, the forms of Europe and of W. and N. Asia prevail more and more towards the N. W. Malayan forms eastward, and Chinese types, and particular sub-Himalayan genera and species, the range of which extends eastward to China. Again, on the highlands of the Peninsula of India, and still again in those of Ceylon distinct species of the northern types occur, *but no different genera.* Thus the jungle-fowl of N. India is replaced by a different species (*Gallus Sonneratii*) in the Peninsula, and by a third (*G. Stanleyi*) in Ceylon, and not a few similar instances might be adduced. Dr. G. Buist has mentioned that in Bombay on the approach of the monsoon, nearly all the Kites, Hawks, Vultures, and other carrion birds disappear from the sea coast, while the Crows begin to build their nests and hatch their young just at the season that seems most unsuitable for incubation, for the eggs are often shaken out, or the nests themselves are destroyed by the storms and the poor birds are exposed, in the performance of their parental duties, to all the violence and inclemency of rain and tempest. At the instigation of a sure and unerring instinct, the carnivorous birds, as the rains approach, withdraw themselves from a climate unsuitable to the habits of their young, betaking themselves to the comparatively dry air of the Dekhan, where they nestle and bring forth in comfort, and find food and shelter for their little ones. The scenes connected with this, which follow the conclusion of the rains, are curious enough. While the mahomedans bury, and the hindus burn their dead, the Parsees expose their dead in large cylindrical roofless structures, called Towers of Silence, where birds of prey at all times find an abundant repast. Their family cares and anxieties over for the season, the carrion-birds, which had left in May for the Dekhan, return in October to Bombay, and make at once for the usual scenes of their festivities, now stored with a three months' supply of untasted food. As they appear in clouds approaching from the mainland, the Crows, unwilling that their dominions should be invaded, hasten in flocks to meet them, and a battle ensues in the air, loud, fierce and noisy; the fluttering of the wings, the screaming and cawing of the combatants, resounding over the island, till the larger birds succeed, and having gained the victory are suffered henceforth to live in peace. In Bengal, the Kites and Bramini Kites breed chiefly in January and February, and disappear during the rains. The adult 'Adjutants' make their appearance as soon as the rains set in, and becoming in fine plumage towards the close of the rains, depart at that time to breed in the eastern portion of the Sunderbuns upon lofty trees, and along the eastern coast of the Bay of Bengal upon trees and rocks. Vultures are permanently resident; and the Crows propagate chiefly in

March and April, their nests being not unfrequently exposed to the fury of the nor-westers and destroyed by them altogether. A very large proportion of the feathered inhabitants of the British islands are equally natives of, or seasonal or irregular visitants to, Southern Asia. Not a few migratory species are common to the polar circle and to Lower Bengal, and even further towards the equator, according to season: but the individual birds may not migrate so far north and south. The *Calliope camschatkensis*, a delicate little bird much like a nightingale, but with a brilliant ruby-throat, which is not rare in the vicinity of Calcutta during the cold season, arrives "early in April, with the snowfleck, in the Lower Kolyma district" in Northern Siberia, as we are told by Von Wrangell; that is to say, before the last of them have left Bengal: but it is remarkable that this bird has never been seen in the very numerous collections from the Himalaya examined hitherto; though another and non-migratory species of the same genus (*C. pectoralis*,) peculiar, so far as known, to the Himalaya, is of common occurrence in such collections. It is, however, enumerated in Mr. Hodgson's list of the birds of Nepal: still it seems to follow that the *C. camtschatkensis* does not breed extensively on this side of the snow; although the Bengal birds may not have to find their way quite so far as to Northern Siberia to pass the summer. The Hoopoe (*Upupa epops*,) another species common in Southern Asia during the cold season, and on the table lands at all seasons, is, to all appearance, a bird of fluttering and feeble flight; but has repeatedly been observed, during the seasons of migration, at altitudes considerably above the limits of vegetation. "On the western side of the Lánák pass, about 16,500 feet, I saw a Hoopoe," writes Major Cunningham, and at Momay (14.000 to 15,000 feet elevation), under the lofty Donkia Pass in Northern Sikhim, Dr. J. D. Hooker observed, in the month of September, that "birds flock to the grass about Momay; Larks, Finches, Warblers, abundance of sparrows (feeding on the Yak droppings), with occasionally the Hoopoe: waders, Cormorants, and wild Ducks, were sometimes seen in the streams, but most of these were migrating south." Dr. J. D. Hooker's sketch of the grand but most desolate panorama beheld by him from the summit of the Donkia Pass (18,466 feet elevation) ought to be familiar to all readers; and he elsewhere remarks that "no village or house is seen throughout the extensive area over which the eye roams from Bhomtso, and the general character of the desolate landscape was similar to that which he had as seen from the Donkia Pass. The Kiang grazing with its foal on the sloping downs, the Hare bounding over the stony soil, the Antelope, the *Tchiru* and also the *Goa*, *Procapra picticaudata* of Hodgson, scouring the sandy flats, and the Fox stealing along to his burrow, all are desert and Tartarian types of the animal creation. The shrill whistle of the Marmot alone breaks the silence of the scene, recalling the snows of Lapland to the mind; while the Kite and Raven wheel through the air, with as steady a pinion as if that elevation possessed the same power of resistance that it does at the level of the sea. Still higher in the heavens, long black V-shaped trains of wild Geese cleave the air, shooting over the glacier crowned top of Kinchinjhow, and winging their flight in one day, perhaps, from the Yaru to the Ganges, over 500 miles of space, and through 22,000 feet of elevation: one plant alone, a yellow lichen (*Borrera*) is found at this height, and that only as a visitor for, Tartar-like, it migrates over the lofty slopes and ridges, blown about by the violent winds. I found he says, a small beetle at the very top, probably blown up also; for it was a flower-feeder, and seemed benumbed with cold." "An enormous quantity of water-fowl," remarks the same scientific traveller, Dr. Hooker, "breed in Tibet, including many Indian species that migrate no further north. The natives collect their eggs for the markets of Jigatzi, Giantchi, and Llassa, along the banks of the Yaru river, Ramchoo, and Yarbru and Dachen lakes. Amongst other birds, the *Saras*, or giant Crane of India (see Turner's Tibet, p. 212) repairs to these enormous elevations to breed. The fact of birds characteristic of the tropics dwelling for months in such climates is a very instructive one, and should be borne in mind in our speculations on the climate supposed to be indicated by the imbedded bones of birds." It may however be remarked that the *Saras* (*Grus antigone*) also breeds south of the Himalaya; and that specimens too young to fly are occasionally brought for sale even to Calcutta. Turner, describing the lake "Ramtchoo," remarks,—"that it is frequented by great abundance of water-fowl, wild-geese, ducks, teal, and storks, which, on the approach of winter, take their flight to milder regions. Prodigious numbers of saurasses, the largest species of the crane kind, are seen here at certain seasons of the year, and they say, that any quantity of eggs may there be collected, they are found deposited near the banks. "I had, " he says" several of them given to me when I was at Tassisudon, during the rains; they were as large as a turkey's egg, and I remember being told that they came from this place; but whether or not they were those of the Sauras, I cannot venture to pronounce." Instances have been known of the *Saras* breeding in captivity, when a pair was allowed the range of a large walled garden (protected from Jackals) containing shallow inundated enclosures for the growth of rice: in these the nest was commenced under water, and raised for some inches above the surface; the eggs were two in number, about 3¾ inches long by 2¼ inches broad, of a bluish-white, with a few distantly placed rufous specks and blotches. The nest of the European Crane (*Grus cinerea*), also a common Indian bird, is thus described by Major Lloyd, as observed by himself in Scandinavia. "It usually breeds in extended morasses, far away from the haunts of men. It makes its nest, consisting of stalks of plants and the like, on a tussock, and often amongst willow and other bushes. The female lays two eggs," &c. Again, Major Cunningham, in his 'Ladak,' &c., remarks that "the water-fowl swarm on the lakes and on the still waters of the Upper Indus. I have, he says shot the wild Goose on the Thogji, Chanmo and Chomoriri lake at 15,000 feet; and Col. Bates and I shot three Teal on the Suraj Dal, a small lake at the head of the Bhaga river, at an elevation of upwards of 16,000 feet:" but the time of the year is not mentioned by this author. Those birds which are common to India and the polar circle appertain for the most part, as might be supposed, to the wading and web-footed orders; and a few of them are of very general distribution over the world, as, especially, the common Turnstone (*Strepsilas interpres*), which seems to be found on every sea-coast. The *Lobipes hyperboreus* is a little arctic bird, of rare occurrence even in the north of Scotland, Orkney and Shetland: but a specimen was not long ago procured near Madras, which is now in the Calcutta museum; and there also may be seen an example of the nearly related *Phalaropus fulicarius*, obtained in the Calcutta provision-bazar so late in the year as May 11, 1846. The well-known naturalist of the Madras Presidency, Dr. T. C. Jerdon, obtained in Southern India a single example of a little Australian Plover, *Hiaticula nigrifrons*, which figures in [illegible] talogue as a supposed new species by the synonyme *H. russata*. The Tibetan Raven is considered as a peculiar species by Mr. Hodgson, an opinion to which the Prince of Canino seems to incline: it may be presumed to inhabit the lofty mountains of Butan to the north, but the smaller crow of Southern Asia is the *C. splendens*; while the common black crow of all India, *C. culminatus*, would seem to stand here alike for the 'Raven,' the 'Carrion Crow,' and the 'Rook!' The true Rook (*Corvus frugilegus*) however, is known to inhabit or visit the Peshawur valley, Afghanistan, and Kashmir. The Rook of China and Japan is considered a distinct species, *C. pastinator* of Gould; and the Jackdaw (*C. monedula*) accompanies it in those countries, while the true northern Raven *Corvus corax* is met with not only there, but also over a great portion of the Punjab. In other parts of India the comparatively small *C. culminatus* is popularly known to Europeans as "the Raven:" but the northern Raven would make a meal of one and not feel much the worse for it. Dr. Francis Buchanan Hamilton, remarking upon the hawking or falconry observed by him in the Shahabad district, mentions that "the only pursuit worth notice that he saw in several days' hawking was from a large bird of prey named *Jimach*, which attacked a very strong Falcon as it was hovering over a bush into which it had driven a Partridge. The moment the Falcon spied the Jimach it gave a scream, and flew off with the utmost velocity, while the Jimach equally pursued. They were instantly followed by the whole party, foot, horse, and elephants, perhaps 200 persons, shouting and firing with all their might; and the Falcon was saved, but not without severe wounds, the Jimach having struck her to the ground; but a horseman came up in time to prevent her from being devoured." The *Wokhab* or *Ukab*, as it is also termed, is a small Eagle, very abundant in the plains of Upper India, the Dukhun, &c., bearing many systematic names, the earliest of which is *Aquila fulvescens*; for it is a diff[illegible] bird, not quite so large and robust [illegible] *Aq. nævioides* of Africa, with which it has been supposed identical. The Hon. Walter Elliot, of the Madras C[illegible] remarks that—"the *Wokhab* is very troublesome in hawking, after the sun becomes hot, mistaking the *jesses* for some kind of prey, and pouncing on the Falcon to seize it. He had once or twice nearly lost 'Shahins' (*Falco peregrinator*) in consequence, they flying to great distances for fear of the "*Wokhab*," *i. e.* the Jimach. The principal species employed in Indian falconry are identical with those of Europe; namely, the *Bauri* of India, which is the Peregrine Falcon of the West; and the *Baz* of India, which is the Goshawk or 'Gentil Falcon' of Britain. In a curious Persian treatise on the subject, by the head falconer of the Mogul emperor Akbar, the various species used are enumerated, and may be recognised with precision: among them is the *Shangar*, which is clearly the Jer Falcon of the north; represented as extremely rare and valuable, taken perhaps once or twice only in a century, and then generally in the Punjab. The *Shahin* (*Falco peregrinator*), another favorite Indian Falcon, does not inhabit Europe, but is clearly the *Falco ruber indicus* of Aldrovand, rather than the small hobby-like Indian species (*F. severus*), on which Temminck bestowed the name *F. Aldrovandi*. With five or six exceptions only, the whole of the European diurnal birds of prey are met with in India, many of them being much commoner in this country ; and they are associated with numerous other species unknown in Europe. The sport of falconry is widely diffused over Asia, even to the Malayas ; but whether extending to China and Japan, we are unaware. It may further be noticed that the "quarry" hawked by Dr. Layard's Bedouin companions on the great plain of Mesopotamia, and rightly enough denominated by him a "Bustard," is no other than the Houbara (*Houbara Macqueenii*) of Sindh and Afghanistan ; being a different species from that of Spain and North Africa (*H. undulata* ;) and it appears that the former has most unexpectedly turned up, of late years, in England and Belgium, if not also in Denmark. The great spiny-tailed Swift of the Himalaya (*Acanthylis nudipes* of Hodgson) was obtained, a few seasons back, in England. Mr. Gould identifies this British-killed bird with his *Ac. caudacuta* of Australia, but it appears identical with the Himalayan species ; upon comparing Himalayan specimens with Mr. Gould's plate, no difference can be detected. The great Alpine Swift, (*Cypselus melba*) is common to the Himalaya, the Nilgiris, and high mountains of Ceylon, but the great *Acanthylis* of the Himalaya has never been observed in S. India, and is replaced in the Nilgiris, Ceylon, and also across the Bay of Bengal, (in Penang, &c.) by a distinct species, the *Ac gigantea.* Gold and Silver Pheasants are inhabitants of China ; but the Golden Pheasant, according to M. Temminck, inhabits not only China and Japan, but the northern parts of Greece, as also Georgia and the Caucasus ; and it has been met with even in the province of Orenbourg. M. Degland informs us, that M. Gamba, French Consul at Tiflis, met with this gorgeous bird in numerous flocks on the spurs of the Caucasus, which extend towards the Caspian sea ; and that now it has gone wild and multiplied in some of the forests of Germany. In Southern Asia, the birds familiarly known as 'Bulbuls' must not be confounded with the Persian Bulbul, which is a species of true Nightingale (*Luscinia*), a genus very closely related to some of the small Thrushes of America. We have no true Nightingale wild in India ; but the 'Shama' *Cercotrichas macrourus*, undoubtedly the finest song-bird of this part of the world, is not unfrequently designated the Indian Nightingale, a misnomer which only leads to confusion. It is common to India and the Malay countries ; and there is a second species (*C. luzoniensis*) in the Philippines, and a third (*C. erythropterus*) in Africa. We may remark that the *Orocetes cinclochyncha* is also termed *Shama* in the Madras Presidency. Our esteemed Indian songster is *le Merle trisolor de longue queue* of Levaillant (*Oiseaux d' Afrique pl.* 114). The *Bhimraj* (*Edolius paradiseus*) is popularly denominated "the Mocking-bird" by Europeans. Several eminent naturalists persist in ignoring the very great differences between 'Storks' and 'Cranes,' in their appearance, habits, anatomy, modes of breeding, and everything, except that both happen to be long-legged birds. They do so by designating the *Hurgila* or 'Adjutant' (*Leptoptilus argala*) '· the gigantic Crane." The three ordinary Indian Cranes (*Grus antigone, Gr. cinerea*, and *Gr. virgo* : the *Gr. leucogeranos*, occur rarely in the North West Provinces. Now the words *Crane* and *Grus*, and the Hindustani names of the three common Indian species, *Saras, Karranch*, and *Kakarra*, all have reference to the loud trumpeting of these birds, which have a curious internal conformation resembling that of the Trumpeter Swans : whereas the Storks are voiceless birds, having actually no vocal muscles, and can make no sound, but by clattering their mandibles together, which they do pretty loudly. *Yunx indica* appears to be met with in Afghanistan and Tibet. Mr. Gould describes a kind of Nuthatch to inhabit the Himalayan mountains towards Kashmir, but the bird in question is unknown in Central India properly so designated. The *Acrocephalus arundinaceus* (*Sylvia turdoides* of Temminck), and the *Acr. salicarius* (*S. arundinacea* of Temminck), and also the three common British species of *Phylloscopus*, have been noted by different authors as occurring in India ; but the three Indian species are different. In India, various instances occur of closely affined Indian and European birds, which every ornithologist would at once pronounce to be distinct : *e. g. Oriolus galbula* and *O. kundoo* ; *Lanius excubitor* and *L. lahtora* ; *Troylodytes europœus* and *Tr. sub-himalayanus* ; *Certhia familiaris* and *C. himalayana, &c.* : and not unfrequently the exact European species inhabits India in addition to another which would otherwise be regarded as its counterpart or representative, or according to the views of some naturalists a mere local or climatal variety of the same species : thus *Circus Swainsonii* (the *pallidus* of Sykes) is regarded by Prof. Schlegel as a local variety of *C. cineraceus* ; had he said so of *C. cyaneus* it would be more intelligible, as the affinity is much closer with *cyaneus* ; nevertheless, both *Swainsonii* and *cineraceus* appear to be common throughout Africa, as both likewise are in India, inhabiting the same districts, and each remaining ever true to its distinctive characters ; while *cyaneus* also inhabits the vicinity of the Himalaya, together with both the others. There are precisely the same grounds for regarding the European *Phy*[illegible]*scopus trochilus* & *Ph. rufus* as being [illegible] al or

'local' varieties of one species; only these birds happen to be better known, much as they resemble each other. Again, we have the true *Falco peregrinus* common in India, together with *F. peregrinator*, which would otherwise be regarded as its Indian counterpart: *Hypotriorchis subbuteo* found together with *H. severus*; *Hirundo sinensis* (the ordinary Indian Sand Martin,) together with *H. riparia*; *Cuculus canorus* (the European Cuckoo,) as also several affined species; and so on. In some cases, a European species may have two or more 'representatives' in India, or *vice versâ*. Thus *Nucifraga caryocatactes* of the pine forests of Europe and Siberia is replaced by *N. hemispila* in those of the Himalaya generally, and by *H. multimaculata* about Kashmir; *Parus major* by *P. monticolus* and *P. cinereus*, if not also *P. nuchalis* (in addition to *cinereus*) in S. India; *Picus major* by *P. himalayanus* and *P. darjellensis*; *Accentor alpinus* by *A. nipalensis* and *A. variegatus*: while, on the other hand, *Lanius lahtora* in India is represented both by *L. excubitor* and *L. meridionalis* in Europe; *Sitta cinnamoventris* by *S. europœa* and *S. cœsia*, *&c.* Some ornithologists regard the *Passer domesticus*, *P. italiæ* (vel *cisalpinus*), and *P. salicarius* (vel *hispaniolensis*,) of Europe, as being local varieties merely of the same: yet they hold true to distinctive differences of coloring, wheresoever found; and examples of the last-named race from Afghanistan and the extreme N. W. of India differ in no appreciable respect from Algerian specimens with which they have been compared moreover, this race is of far more gregarious habits even than *Passer domesticus*; a fact noticed of it alike in N. Africa and in Kohat. For the *Bauri* or Peregrine Falcon of India, Mr. Gould adopts Latham's name *F. calidus*, thereby implying a distinction from true *peregrinus*. It may be doubted exceedingly if any one difference could be detected. It is true, that many highly approximate races (considered, therefore, as species) do maintain their distinctness, even in the same region and vicinity; as *Falco peregrinus* and *F. peregrinator*, *Hypotriorchis subbuteo* and *H. severus*, *Circus cyaneus* and *C. Swainsonii* in India. *Coracias bengalensis* of all India meets, in the Punjab, &c., the European *C. garrula*; but in Assam, Sylhet, Tippera, and, more rarely, Lower Bengal, it co-exists with the *C. affinis*, specimens of
from the Burmese countries are ever
their proper coloration, as those of *C.*
are from Upper and S. India; but
is seen every conceivable gradation or
ion from one type of colouring to the
in examples from the territories where
wo races meet: so also with the *Treron*
of Upper India and the *Tr. chlo-*
India and Ceylon, which blend in Lower Bengal; and *Gallophasis albocristatus* of the W. Himalaya and *G. melanotus* of Sikhim, which produce an intermediate race in Nepal; and *G. Cuvieri* of Assam and Sylhet, and *G. lineatus* of Burmah, which interbreed in Arakan, &c., so that every possible transition from one to the other can be traced, as demonstrated by a fine series of preserved specimens in the museum of the Asiatic Society in Calcutta. If inhabiting widely separated regions, the (assumed) distinctness of such races, would be at once granted; as with *Phasianus colchicus* and the Chinese *Ph. torquatus*, which readily intermix and blend, wherever the latter has been introduced in Europe. Such races as the Crossbills, the *Bauri* and *Shahin* Falcons of India, the British *Phylloscopus trochilus* and *Ph. rufus*, and the different European Sparrows, maintain themselves persistently distinct; and this while the common Sparrow of India would probably blend with the British Sparrow (though considered distinct by some), if an opportunity should occur of its doing so.

The following birds are given in the Calcutta Review (March 1857), as common to England and Southern Asia.

Gyps Fulvus. (*Vultur fulvus*; 'Griffon Vulture.') Inhabits the high mountains of Europe and Asia, inclusive of the Himalaya and its vicinity: common in Dalmatia, Greece, and the islands of the Mediterranean; less so on the Alps, and exceedingly rare and accidental in the British islands and northern provinces of France. Replaced in the Pyrenees, Sardinia, and Barbary, by the nearly affined G. occidentalis: in E. Africa by G. Ruppellii: and in S. Africa by G. Kolbii; also generally over India and the Malay countries by G. Indicus, a much smaller bird. All are remarkable for possessing fourteen tail-feathers, whereas other birds of prey have twelve only; even their congener, G. bengalensis, which is the commonest Indian vulture about and near towns, and is also met with in E. Africa. As Mr. Yarrell does not appear to discriminate the G. occidentalis, it is just possible that the bird which he notices appertains to that particular race, rather than to the genuine G. fulvus of the Himalaya.

The G. fulvus is the 'great white Vulture' of the Himalaya; and the 'great black Vulture' of the Himalaya, Vultur monachus, may yet be found to stray so far west as Britain; since it has several times been shot in Schleswig and Holstein, also in Provence, Languedoc, Dauphiné, &c. It is not rare in the Pyrenees, Sardinia, Sicily, and mountainous regions of the S. E. of Europe.

The great African V. auricularis has been observed in Greece, and has once been killed in France (in Province); this resembles V. ponticerianus, the so-called 'king vulture' common over the plains of India, but is much larger, equalling V. monachus in size; while the latter has also an analagous diminutive in Africa, in the V. occipitalis.

Neopthron Percnopterus ('Egyptian Vulture) of the Appendix to Bruce's travels *Rachamah; Pharaoh's chickens, &c.* Inhabits Europe, Asia, and Africa, abounding in most warm regions; very common on the plains of Upper Hindustán, and the table-land of peninsular India; but not observed in Lower Bengal below the tideway of the Gangetic rivers: common in the southern parts of Europe; but very rare and accidental in the British islands, and also in Scandinavia. This bird is evidently the 'Kite' of Major A. Cunningham's 'Ladak' (p. 205). He writes—"the Eagle (*cha-nak*, or the 'black bird') and the kite (*cha-kor*, or the white bird) are common enough, and so is the large raven." A second species of this genus, the N. pileatus, inhabits Africa only.

Gypaetos. The Lämmergeyer (Gypaetos) inhabits the high mountains of Europe, Asia and Africa; from the Altai even to the Cape colony. Authorities differ with respect to the value to be attached to certain differences observed in specimens from different regions. The Prince of Canino identifies the Himalayan with G. barbatus of Gebler from the Altai, and G. nudipes of Brehm (*meridionalis* of Keyser and Blasius) from S. Africa. M. Malherbe remarks that specimens from the Pyrenees and Sardinia are of inferior size to those from the Swiss Alps; and this smaller race is the *G. barbatus occidentalis* of Schlegel. Even the Himalayan is said to differ from that of eastern Europe by having a pictoral dark band not observed in the other, and is the G. hemachalanus of Captain Hutton. The constancy of the alleged distinctions seems to need confirmation, preparatory to an estimation of their value. The Himalayan bird is commonly mis-called 'Golden Eagle' by English residents.

Aquila chrysaetos ('Golden Eagle.') Inhabits the mountainous regions of Europe, Asia, and N. America (being the only true Aquila in the New World); rare in N. Africa: and in India confined to the Himalaya. M. Degland inclines to the opinion that a larger and smaller race exist; the former inhabiting a colder region; but this much needs confirmation. No difference can be perceived between British and Himalayan examples.

Aquila mogilnik or 'Imperial Eagle' of Temminck (*Aq. heliaca*, Savigny) inhabits generally a warmer climate than Aq. chrysætos, and is extensively diffused over the mountainous regions of S. E. Europe, Asia, and N. Africa, including those of India (being the *chrysaetos* of Dr. Jerdon's Catalogue of Birds of S. India). In Europe it has been observed so far north as in Jutland; but never in the British islands.

Aquila nœvia. ('Spotted Eagle.') Inhabits Europe, Asia, and Africa; being common in the hilly parts of India, and even in the Bengal Sundarbans. Very rare in N. Europe: but has been shot near the town of Schleswig, and has even been known to breed in Ireland.

There are two affined species in India, Aq. hastata, nearly as large but less robust, and Aq. fulvescens, distinct from Aq. nævioides of Africa the 'Wokhab' noticed in *Cyc.* of *India*, which is smaller and more robust,—a miniature of Aq. mogilnik. Neither of them has been observed in Europe.

Eutolmaetos fasciatus. (*Falco Bonellii*, de la Marmora.) Inhabits the southern parts of Europe, with Asia, and N. Africa; being replaced in S. Africa by Eu. bellicosus: in India and Ceylon confined to the hilly parts, where far from rare.

Hieraetus pennatus. Inhabits E. Europe, Asia, Africa, India generally, and Ceylon: differing very little (if at all) from H. morphnoides of Australia: a rare species in Europe. Prof. Schlegel doubts the proper *habitat* of this bird: it is not uncommon in India, preying much on domestic pigeons.

Pandion haliætus. ('Osprey.') Of universal distribution; the Australian only differing but slightly. Common in India; and migratory in the far north.

Falco candicans. (*Falco gyrfalco*; 'Gyr Falcon.') An Arctic species, very rare in temperate regions: the *Shangar* of Indian falconry seems to denote it, as a bird of excessively rare occurrence in the Punjab. Some writers separate from it an Icelandic race, either as a distinct species or variety, respecting which there is much difference of opinion.

Falco sacer. Schlegel (*F. lanarius* apud Temminck and Gould), a very rare species in East Europe, seems to belong properly to Middle Asia, and occurs rarely in the Himalaya.

Falco lanarius. Schlegel, an inhabitant of the South East of Europe, differs very slightly from the Indian F. juggur, Gray.

Falco peregrinus. ('Peregrine Falcon.') Inhabits Europe, Asia, North Africa, if not also North and South America: the South African race smaller; and Australian F. macropus (*melanogenys* of Gould) very nearly affined. Common in India; also a nearly affined species, F. peregrinator, which resorts more to the hills, and is the *F. ruber indicus* of Aldrovand. Although the Indian and also the north American races are considered different the European by some, is doubted, the existences of any permanent distinction whatsoever.

Hypotriorchis subbuteo (*Falco subbuteo* the 'Hobby.') All Europe, Asia and Africa migratory: common in the Himalaya; rarer in S. India; a cold weather visitant in Lower Bengal, together with an affined species, H. severus. Both are somewhat crepuscular in habit.

Erythropus vespertinus. (*Falco rufipes;* the 'Red-footed Falcon.') Europe, Asia, and N. Africa: rare in Britain: not uncommon in India, in large flocks, which visit Lower Bengal during the rainy season.

Erythropus cenchris. (*Falco tinnunculoides* of Vieillot.) Resembles E. vespertinus in structure and habits and both appear to be exclusively insectivorous, siezing their prey on the ground and not habitually on the wing (like the 'Hobby'). Geographical range also similar, or nearly so; but this has not been known to stray into Britain. Both are migratory.

Tinnunculus alaudarius. (*Falco tinnunculus* the 'Kestrel.') All Europe, Asia, Africa, with the great Asiatic archipelago. Very common in India, sometimes in large flocks. The commonest bird of prey in England and France.

Astur palumbarius. ('Goshawk') Europe, Asia, and N. Africa: rare in Britain; much commoner in Scandinavia, and generally over Europe, where migratory: common in the Himalaya.

Accipiter nisus. ('Sparrow-hawk.') Europe, Asia, and N. Africa: common in the hilly parts of India; rare in the plains, where abundantly replaced by Micronisus badius. Migrates partially in northern regions. There is a nearly affined race in the Malay countries, Acc. nisoides, distinguished by having a white throat with three distinct dark stripes, and no rufous on the under-parts of the adult male. In other respects, quite similar to Acc. nisus; and by no means to be confounded with Acc. virgatus, which likewise has the throat-stripes.

Buteo vulgaris. ('Common Buzzard.') Europe, N. Africa, Asia Minor: higher mountains of India; being common in the W. Himalaya, rare in the Nilgiris, and replaced on the plains by B. canescens. Rare, and to the northward and far west only, in America: mostly migratory in Scandinavia.

Pernis apivora. ('Honey Buzzard.') Europe, Asia, N. Africa: migratory. In India common (if identically the same), in addition to P. cristata. In the crestless or subcrested Indian specimens (adults), there is a marked tendency to the development of three dark stripes on a white throat, and in the Astur trivirgatus and sundry other Indian species. Can such be of a hybrid race between P. apivora and P. cristata?

Circus æruginosus. ('Marsh Harrier.') Europe, Asia, N. Africa: very common in India. Migrates in Scandinavia.

Circus cyaneus ('Hen Harrier.') Europe, Asia, Africa: the American C. Uliginosus barely if at all, separable. In India common in the Sub Himalaya region and its vicinity: being replaced southward by C. Swainsonii (*pallidus* of Sykes.)

Circus cineraceus. (*C. Montagui*; Montagu's Harrier.') Europe, S. Asia, Africa: very common in India.

Circaetus gallicus is a bird of South Europe, Asia, and Africa, which is common in India, and has been killed in Denmark; but never in the British Islands.

Bubo maximus. ('Eagle Owl.') Europe, Siberia, China, Asia Minor, Babylonia, Barbary; Himalaya? If so, very rare.

Scops Aldrovandi. ('Scops eared Owl.') Europe, Asia Minor, N. Africa: migratory. In India replaced by affined species; more especially Sc. bekkamœna (*the Scops sunia et pennata* of Hodgson) which seems to be generally diffused over the country. Sc. Aldrovandi is admitted in the Catalogue of species from Nepal and Tibet presented to the British Museum by Mr. Hodgson; but referring doubtless to a grey specimen of the bakkamœna. Gradations from the grey to the chesnut-coloured varieties of Sc. bakkamœna may be seen in the museum of the Asiatic Society, Calcutta.

Asio otus. (*Otus vulgaris*; 'Longeared Owl.') Europe, N. Africa, Asia Minor, N. Asia, N. America: in India, confined to the Himalaya, where not uncommon.

Asio brachyotus. (*Otus brachyotus*; 'Short-eared Owl.') Europe, Asia, Africa N. and S. America: migratory. Common in India.

Syrnium aluco. (*S. stridulum*; 'Tawny Owl') Europe, N. Africa, Asia Minor, N. Asia to Japan (Temminck). S. nivicolum, common in the W. Himalaya, rarer eastward, is barely separable.

Athene psilodactyla. (*Noctua passerina;* Little Owl.') Europe, N. Africa, W. Asia, Afghanistan, N. W. Himalaya. A much larger species than the true Ath. passerina (*Strix acadica* of Temminck) of N. Europe, which has not been observed in the British Islands.

Turdus viscivorus. ('Missel Thrush.') Europe, W. Asia: its representative in the W. Himalaya appears to be constantly a little larger and has more of the whitish hue upon the outermost tail-feathers; upon which slight differences, M. Homeyer distinguishes it by the name T. Hodgsoni.

Oreocincla Whitei. (*Turdus Whitei;* 'White's Thrush.') A Siberian species, according to the Prince of Canino, with 14 tail-feathers! Distinct from the very similar O. dauma of India (from the Hindustani word *Dama*, equivalent to 'Thrush'), with which it has been supposed identical.

Turdus pilaris. ('Fieldfare.') Europe, W. Asia; migratory. One specimen has been killed at Saharunpur. In the Himalaya generally, replaced by T. atrogularis. a common bird of N. Asia, which occasionally strays into Europe and has been obtained so far west as in Denmark; in India it occurs sparingly in Lower Bengal during the cold season. T. fuscatus of Pallas (*Naumanni* of Temminck), another species inhabiting Siberia and Japan, and straying rarely into Europe, has been once obtained in Nepal.

Turdus iliacus. ('Redwing') Europe, W. Asia, Barbary; has been observed in large flocks in Kohat. Migratory: breeding in the extreme north.

Turdus merula. ('Blackbird.) Europe, W. Asia, N. Africa, Madeira; Afghanistan? Kashmir? China? Females have been seen from Afghanistan and Chusan, which could not be distinguished from the common European Blackbird; and it is said to be—common in the mountains surrounding Kashmir, at from 10,000 to 13,000 feet elevation. The Prince of Canino has recently distinguished a nearly affined "Merula dactyloptera" from Syria.

Turdus (*or Merula*) *simillima.* Of the mountainous parts of S. India and M. Kinnisii of those of Ceylon, though nearly affined, are sufficiently well distinguished from the Blackbird of Europe. In the Himalaya generally, the latter is replaced by M. boulboul (*pœciloptera* of Vigors), which is not unfrequently brought in cages to Calcutta, where known as the Kastura.

Cyanecula wolfi. (*Phœnioura suecica;* 'Blue-throated Warbler.') Europe, W. Asia, Japan (Temminck), N. Africa; rare in Britain: migratory: abundantly replaced in India by C. suecica, and in middle Asia, Afghanistan, &c., by S. cærulecula (*cyane* of Eversmann); the first known by its pure white pectoral spot, which spot is always deep ferruginous in the Indian bird, and is wanting in that from middle Asia.

Ruticilla phœnicurus. (*Phœnicura ruticilla* 'Redstart.') Europe, W. Asia, Siberia (Schlegel) Japan, (Temminck,) N. Africa; migratory. Replaced in Sindh and Afghanistan by R. phœnicuroides, which is probably the phœnicurus noted from Nepal. There are numerous Himalayan species; and one, R. rufiventris, is generally diffused over India.

Pratincola rubicola. (*Saxicola rubicola;* 'Stone-chat.') Europe, N. Africa, Japan (Temminck.) In India replaced by the nearly affined Pr. indica, and in Sindh also by Pr. leucura, as in S. Africa by Pr. pastor.

Pratincola rubetra. (*Saxicola rubetra* 'Whinchat.') Europe, N. Africa, Arabia (Schlegel): migratory. Erroneously assigned to India.

Saxicola œnanthe. ('Wheatear.') Europe, W. Asia, plains of Upper India, N. Africa, Artic regions, Greenland! Migratory.

There are several other Indian Wheatears, all of which are different from those of Europe excepting S. leucomela; but S. stapazina is replaced in India by S. atrogularis, and S. leucura by S. leucuroides (*opistholeuca* of Strickland) which occurs likewise in N. E. Africa.

Locustella rayi. (*Salicaria locustella;* 'Grasshopper Warbler.') Europe, Asia, N. Africa: migratory. Has once been obtained in Central India, and once in Lower Bengal; where an affined species. L. Rubescens, is not uncommon. Both specimens are in the Calcutta museum.

Acrocephalus arundinaceus. (*Salicaria turdoides;* 'Thrushlike Warbler.') Europe N. Africa, Arabia (Schlegel), Japan (Temminck); rare in Britain: migratory. Replaced in India by Acr. brunnescens.

Sylvia atricapilla. (*Curruca atricapilla;* 'Blackcap 'Warbler.') Europe, W. Asia, Arabia, (Schlegel), Japan (Temminck), all Africa. One killed in Java (Temminck.)

Sylvia cinerea. (*Curruca cinerea:* 'Common White-throat.') Europe, Asia Minor, Arabia (Schlegel), N. Africa: migratory.

Sylvia curruca. (*Curruca sylviella:* 'Lesser White-throat.') Europe, Asia, Africa: migratory. Common in India; and a nearly affined but larger species in S. India, S. affinis (*Curruca cinerea* apud Jerdon.)

Sylvia orphea (*Curruca orphea;* 'Orpheus Warbler.') Europe, N. Africa, Arabia, (Schlegel) rare in Britain: migratory. The Indian race seems to differ only in having a somewhat longer bill: inhabiting both Upper Hindustan and S. India.

Phylloscopus trochilus. (*Sylvia trochilus;* 'Willow Warbler.') Europe, Asia Minor, N. Africa; W. India (apud Gould, but needs confirmation): migratory. Has been known to stray to N. America.

Regulus cristatus. ('Golden-crested Regulus.') Europe, N. Asia, Japan, W. Asia, Barbary: partially migratory. Replaced in the W. Himalaya by R. himalayensis.

Reguloides proregulus. (*Regulus modestus;* 'Dalmatian Regulus.') Asia; very rare in Europe: one specimen obtained in Dalmatia and another in England. Common in India with several affiued species.

Parus major. ('Great Tit.') Europe N. Asia, Japan, N. Africa. Replaced in India, Ceylon, and Java, by P. cinereus, and in the Himalaya also by P. monticolus.

Parus cœruleus. ('Blue Tit.') Europe, N. Asia, Japan, China Formosa.

Parus ater. ('Cole Tit.') Europe. Siberia, Japan, Formosa. Replaced in Nepal by P. emodius.

Orites caudatus. (*Parus caudatus* 'Long-tailed Tit.') Europe, N. Asia, Japan.

Calobates sulphurea. (*Motacilla boarula;* 'Grey Wagtail.') Europe, Asia, Africa, Malay countries, Australia? Migratory within the British islands: common in India.

Pipastes trivialis. (*Anthus arboreus;* 'Tree Pipit.') Europe, N. Asia, Japan, W. Asia, N. Africa; Himalaya (but much confounded with the common *P. agilis* of India): migratory.

Anthus pratensis. 'Meadow Pipit.' Europe, N. Asia, Japan, Asia Minor, W. India; (Gould), Nepal (Hodgson, Gray); one specimen received from Pegu.

Anthus obscurus. (*A. petrosus.*; 'Rock Pipit.') Europe, Siberia, Japan. Replaced in the Himalayan region by A. Cervinus, which is likewise found in Europe.

Corydalla Richardi. (*Anthus Ricardi;* 'Richard's Pipit.') Europe, Asia, N. Africa; common in India; very rare in Britain.

Corydalla campestris. A common European bird which even abounds in the southern parts of Sweden, but has not hitherto been observed in Britain, is also common in parts of India.

Galerida cristata. (*Alauda cristata;* 'Crested Lark.') Europe, Asia, N. Africa; rare in Britain; common in India, where known as the *Chandul* or *Charndol.*

Calendrella brachydactyla. (*Alauda brachydactyra;* 'Short-toed Lark.') S. Europe, N. Africa; rare in Britain; extremely common in India, where currently known to Europeans as the 'Ortolan.'

Certhilauda desertorum of Spain and N. Africa inhabits Sindh.

Ammomanes Lusitonia occurs in the deserts of N. W. India, being replaced further south by A. phœnicura.

Emberiza miliaria. ('Common Bunting.') Europe, W. Asia, Arabia (Schlegel) Barbary.

Emberiza citrinella. ('Yellow Bunting.') Europe, to beyond the polar circle: replaced in the W. Himalaya by E. pithyornis, an inhabitant also of Siberia, which occurs rarely in W. Europe.

Emberiza Cia of S. Europe is common in the W. Himalaya; and E. Pusilla, which seems to be plentiful in Sikhim, has occasionally been observed in Europe, even so far west as Leyden. E. fuscata of N[illegible] common in the W. Himalaya, [illegible]. Asia, Japan, and in considerable numbers in L[illegible] occurs sometimes melanocephala of S. Europe [illegible]ower Bengal. E. parts of India. [illegible] is common in

Fringilla montifringilla. ('Mo[illegible] Mountain Finch.') Europe, N. Asia, Japan, Asia [illegible] Minor, Afghanistan, Kashmir. W. [illegible] istan at all [illegible] Himalaya; a winter visitant in Britain. The European Montifringilla nivalis has been obtained at Kandahar.

Passer montanus. ('Tree Sparrow.') Europe, Asia (commoner to the eastward) Siberia, Tibet, Sikhim, Arakan, Malayan peniusula, Java, China, Japan.

Passer domesticus. ('House Sparrow.') Europe, Asia, N. Africa; the Indian race (*P. indicus* of Jardine and Selby) differing slightly from the European in the paleness of the females and young, the much more albescent hue of the lower-parts, and bright rufous colouring on the back of the adult male.

Passer salicarius. (*vel hispaniolensis*) of Barbary and the southern parts of Europe, Asia Minor, Bokhara, and Afghanistan, visits the Peshawur valley and Kohat in large flocks, being everywhere more highly gregarious than P. Domesticus. P. Petronia (or Petronia stulta), also of S. Europe and N. Africa to Madeira; is common in Afghanistan.

Coccothraustes vulgaris. ('Hawfinch.') Europe, Siberia, China, Japan (*qu.* C. Japonicus, Schlegel?)

Chrysomitris spinus. (*Carduelis spinus;* 'Siskin.') Europe, Siberia, Japan: a winter visitant chiefly in Britain, breeding in the far north.

Linota cannabina. ('Common Linnet.') Europe, Siberia, Japan, Asia Minor, Barbary.

Linota canescens. ('Mealy Redpole.) Northern regions chiefly, Greenland, Japan: an irregular winter visitant in Britain.

Linota montium. ('Mountain Linnet.') Europe, N. Asia, Japan: N. or S. Britain according to season: replaced in Afghanistan by L. Brevirostris.

Carpodacns erythrinus, which is rare in the N. E. of Europe, is a common winter visitant over the greater part of India.

Loxia curvirostra. ('Common Crossbill.') Circuit of northern regions: all Europe; Afghanistan: an irregular visitant in Britain: in America it has been obtained so far south as in the Bermudas. A much smaller species inhabits the Himalaya, the L. Himalayana.

Loxia bifasciata. ('European White-winged Crossbill.') N. Europe and Asia. Himalaya (Gould): rare in Britain.

Sturnus vulgaris. ('Common Starling.') Europe, Asia, Africa, Azores: common in the Himalaya and N. India, Kashmir, Afghanistan &c., as in Britain. N. B.—An Afghan specimen, assigned to St. unicolor, appertains to the present species, being an old male with the pale specks obsolete: the true St. unicolor of Sardinia, Barbary, &c., is very distinct and much less bright in its glosses.

Pastor roseus. ('Rose-coloured Pastor.') Europe, Asia, and Africa; common in India; rare in Britain.

Fregilus graculus. ('Chough.') High mountains and sea-cliffs of Europe, Asia, and Africa; common in high Central Asia, the Himalayas, Afghanistan, &c.; as is also the Pyrrhocorax alpinus of the Swiss Alps and Pyrenees,

Corvus corax. ('Raven.') Circuit of northern regions; rare in N. Africa, Punjab, Kashmir, Afghanistan; the Tibetan species considered distinct, but probably on insufficient evidence.

Corvus corone. ('Carrion Crow.') Europe, Afghanistan, (Pushut), Japan *apud.* Temminck.)—Replaced in India by C. Culminatus.

Corvus cornix. ('Hooded Crow.') Europe, Asia Minor, Afghanistan, Japan (Temminck), Barbary.

Corvus frugilegus. ('Rook.') Europe, N. and W. Asia, Afghanistan, Peshawur valley, Kashmir: replaced in China and Japan by C. Pastinator.

Corvus monedula. ('Jackdaw.') Europe, Siberia, Barbary, W. Asia, Peshawur valley, Kashmir.

Pica caudata. ('Magpie.') Europe, W. Asia, Siberia, E. N. America, China? Japan? Replaced in Afghanistan and W. Tibet by P. bactriana, in E. Tibet by P. bottanensis, in China and Japan (?) by P. media and Barbary by P. mauritanica.

Yunx torquilla. ('Wryneck.') Europe, Asia, N. Africa, China, Japan, Kamschatka; common in India, as in Britain: migratory.

Upupa epops. ('Hoopoe.') Europe, Asia, Africa; a common winter-visitant in Lower Bengal but generally replaced by a nearly affined race in Upper Hindustan and S. India.

Sitta syriaca, or 'Rock Nüthatch' of S. E. Europe, and Asia Minor, or a species of similar habits (most probably the same), inhabits Afghanistan:

Trichodromus muraria or Wall Creeper of S. Europe, is very common in the Himalaya, Afghanistan, &c.

Cuculus canorus. ('Common Cuckoo.') Europe, Asia, Africa, Malay countries: common in the Himalaya, visiting the plains during the cold season.

Coracias garrula. ('Roller.') Europe, Africa, W. Asia, Afghanistan, Kashmir, Sindh, Punjab? migratory in Europe; and rare in Britain.

Merops apiaster. ('Bee-eater.') Europe, Africa, W. Asia, Afghanistan, Kashmir, Sindh, Punjab? migratory in Europe, and rare in Britain.

Hirundo rustica. ('Swallow.') Europe, Asia, Africa; migratory; common in the plains of India during the cold season.

Hirundo urbica ('Martin.') Europe, Africa, Asia, (Siberia;) somewhat rare (or local?) in India: migratory.

Hirundo riparia. ('Sand Martin.') Europe, Asia, Africa, N. America; migratory: in India local, and mostly replaced by H. sinensis.

Hirundo rupestris of S. Europe is common in the high mountains of India; and there is a diminutive of it also in the H. concolor of Sykes.

Cypselus Apus. ('Common Swift.') Europe, N. Africa, W. Asia, Afghanistan; migrato

Cypselus melba. (*C. alpinus*; 'Alpine High mountains (chiefly) of Europe, Asia, a. Africa: tolerably common in the Himalay Central India, Nilgiris, and Ceylon: rare in Britain.

Acanthylis caudacuta, or large Spiny-tailed Swift of the Himalaya, has once been shot in England, according to Mr. Gould.

Caprimulgus Europæus. ('Night-jar.') Europe, N. Africa, W. Asia; Siberia and Kamschatka (Pennant:) migratory. Several species inhabit India.

Columba livia. ('Rock Dove.') Europe, N. Asia to Japan, N. Africa; abundantly replaced in India by the barely separable C. intermedia.

Starna cinerea. (*Perdix cinerea*; 'Common Partridge.') Europe, S. Siberia, Asia Minor: Mesopotamia? Persia? Egypt? a near congener lately discovered in Tibet.

Coturnix vulgaris. ('Common Quail.') Europe, Asia, Africa: chiefly migratory. Abundant in India, though M. Gould considers the race of this country to be distinct.

Tetrax campestris. (*Otis tetrax*; 'little Bustard.') Europe, N. Africa, Asia Minor, Mesopotamia, extreme N. W. of India (Peshawar valley.

Houbara Macqueenii, (*Otis Macqueenii*; 'Maqueen's Bustard.') N. W. of India, Afghanistan, &c. Very rare in Europe.

Œdicnemus crepitans. ('Great Plover.') Europe, Asia, Africa: common in India.

Charadrius hiaticula. ('Ringed Plover.') Europe, N. Asia, Japan, Greenland.

Charadrius cantianus. ('Kentish Plover.') Europe, Asia: not uncommon in India.

Charadrius philippinus. (*Ch. minor*; 'Little Ringed Plover.') Europe, Asia, N. America: rare in Britain; exceedingly common in India.

Charadius pyrrhothorax, a very common Indian species, is known in Europe as a straggler.

Calidris arenaria. ('Sanderling.') Circuit of northern regions, N. and S. Africa, N. Guinea: rare in India (so far as observed hitherto; but probably not so along the sea-coast.

Squatarola helvetica (*Sq. cinerea*; 'Grey Plover.') Circuit of northern regions, Japan, Java, N. Guinea, Australia: tolerably common in India.

Vanellus cristatus. ('Lapwing.') Europe, N and middle Asia, N. Africa: common in N. India, Sindh, &c., but not seen in Lower Bengal.

Strepsilus interpres. ('Turnstone.') Inhabits sea-coasts, from the equator to the poles: on along those of India.

Hæmatopus ostralegus. ('Oyster-catcher.') Circuit of northern regions, to the equator, if not further south: not rare along the shores of the Bay of Bengal, &c.

Grus cinerea. ('Common Crane.') Europe, Asia, N. Africa: migratory; now rare in Britain: common in India during the cold season.

Ardea cinerea. ('Common Heron.') Europe, Asia, N. and S. Africa: common in India.

Ardea purpurea. ('Common Heron.') Europe, Asia, Africa: common in India.

Herodias alba: *Ardea alba*; ('Great White Heron,') Europe, Asia, N. Africa: very rare in Britain: very common in India, though the race is considered different by some.

Herodias garzetta. (*Ardea garzetta*; 'Little Egret.') Europe, Asia, N. Africa: exceedingly rare in Britain: very common in India.

Herodias bubulcus. (*Ardea russata*; 'Buff-backed Heron.') Europe, Asia, N. Africa, exceedingly rare in Britain: very common in India.

Ardetta minuta. (*Botaurus minutus*; 'Little Bittern.') Europe, all Africa, W. Asia, Himalaya, Kashmir; replaced in Lower Bengal by A. sinensis, and more abundantly by A. cinnamomea, which is common throughout India.

Botaurus stellaris. ('Common Bittern.') Europe, Asia, all Africa: common in India.

Nycticorax Gardeni. ('Night Heron.') Europe, Asia; Africa, N. America? (Species at least barely separable): very common in India.

Ciconia alba. ('White Stork.') Europe, Asia, N. Africa, migratory: common in India during the cold season in immense flocks in Lower Bengal.

Ciconia nigra. ('Black Stork.') Europe, Asia, N. Africa: not uncommon in India.

Platalea leucorodia. ('White Spoon-bill.') Europe, Asia, all Africa: common in India.

Falcinellus igneus. ('*Ibis falcinellus*; 'Glossy Ibis'.) Europe, Asia, Africa, N. and S. America, Australia: very common in India.

Numenius arquata. ('Common Curlew.') Europe, N. Africa, Asia (to Japan), Malasia: very common in India.

Numenius phæopus. ('Whimbrel.') Europe, Asia, N. Africa: common in India, along sea-coast and estuaries.

Totanus fuscus. ('Spotted Red-shank.') Europe, Asia; common in India.

Totanus calidris. ('Common Red-shank.') Europe, Asia: very common in India.

Actitis ochropus. (*Totanus ochropus* 'Green Sandpiper.') Europe, Asia, N. Africa; very common in India.

Actitis glareola. (*Totanus glareola*; 'Wood Sandpiper.') Europe, Asia, Africa; from Lapland to the Cape of G. Hope: Java, &c.: exceedingly common in India.

Actitis hypoleucos. (*Totanus hypoleucos*; 'Common Sandpiper.') Europe, Asia: exceedingly common in India.

Totanus glottis. ('Green-shank.') Europe, Asia, Africa, Australia; stragglers obtained in N. America: very common in India.

Recurvirostra avocetta. ('Avocet.') Europe, Asia, all Africa: not rare in India.

Himantopus candidus. (*H. melanopterus*; 'Black-winged Stilt.') Europe, Asia, all Africa: common in India.

Limosa ægocephala. (*L. melanura*; 'Black-tailed Godwit.') Europe, Asia, N. Africa, Australia: very common in India.

Limosa rufa. ('Bar-tailed Godwit.') Europe, N. Africa, W. Asia: Nepal (Hodgson, Grey), Java and Timor (Temminck).

Philomachus pugnax. (*Machetes pugnax*; Ruff.') Europe, Asia, N. Africa: common in India.

Scolopax rusticola. ('Woodcock.') Europe, Asia, N. Africa: very common in Himalaya, not rare in the Nilgiris, more so in the high-lands of Ceylon; a specimen occasionally shot in Lower Bengal.

Gallinago scolopacinus. (*Scolopax gallinago*; Common Snipe.') Europe, Asia, N. Africa: very common in India.

Gallinago gallinula; *Scolopax gallinula*; Jack Snipe.') Europe, Asia, Barbary: common in India.

Tringa Subarquata. ('Curlew Sandpiper.') Circuit of northern regions, to beyond the equator; Australia; very common in India.

Tringa canutus. ('Knot.') Circuit of northern regions: rare in India.

Tringa platyrhyncha. ('Broad-billed Sandpiper.') Europe, Asia; Sumatra, Borneo, Timor (Temminck): not uncommon in India: rare in the U. S. of America.

Tringa minuta. ('Little Stint.') Europe, Asia: very common in India.

Tringa Temminckii. ('Temminck's Stint.') Europe, Asia, N. Africa: common in India.

Tringa Alpina. (*Tringa variabilis*; 'Dunlin.') Arctic regions; circuit of northern regions; Japan; Timor (Temminck); Guina: not rare in India.

Phalaropus fulicarius. ('Grey Phalarope.') Circuit of northern regions: one specimen obtained near Calcutta.

Lobipes hyperboreus. (*Phalaropus hyperboreus ;* Red-necked Phalarope.') Circuit of northern regions: one specimen obtained near Madras, another in Nicaragua, and a pair in the Bermudas.

Crex pratensis. ('Landrail.') Europe, Asia, N. Africa: common in Afghanistan, rare in the N. W. of India: specimen obtained in the Bermudas.

Porzana Maruetta, Crex porzana ; ('Spotted Crake.') Europe, Asia, N. Africa: common in India.

Porzana pusilla (*Crex pusilla ;* 'Little Crake.') Europe, N. Africa, W. Asia, Japan: Nepal (Hodgson.)

Porzana Baillonii (*Crex Baillonii;* 'Baillon's Crake.') Europe, Asia to Japan, all Africa: exceedingly common in India.

Gallinula chloropus. ('Moor-hen.') Europe, Asia, all Africa: common in India.

Fulica atra. ('Common Coot.') Europe, Asia, N. Africa, where found additional to F. cristata): America and Javanese species distinct: common in India.

Anser cinereus (*Anser ferus ;* 'Grey-leg Goose.') Europe, and Asia: common in India.

Anser brachyrhynchus. ('Pink-footed Goose.') Europe, N. Asia: Punjab (rare)?

Bernicla ruficollis. (*Anser ruficollis ;* 'Red-breasted Goose.') N. Asia, chiefly: rare in N. India.

Cygnus musicus. (*Cygnus ferus ;* 'Hooper Swan') N. Europe and Asia; N. Africa; migratory: one specimen obtained in the valley of Nepal.

Casarca rutila. (*Tadorna rutila ;* 'Ruddy Shieldrake.') Europe and Asia, N. Africa (replaced in S. Africa by C. Cana): very common in India.

Tadorna vulpanser. ('Common Shieldrake.') Europe, Asia, N. Africa: common in the Punjab; not rare in Lower Bengal.

Spatula clypeata. (*Anas clypeata ;* 'Shoveller.') Circuit of northern regions, N. Africa: tolerably common in India.

Anas stepera. ('Gadwall.') Circuit of northern regions; Barbary: tolerably common in India.

Anas acuta. ('Pintail Duck.') Circuit of northern regions, Barbary: very common in India.

Anas boschas. ('Wild Duck') Circuit of northern regions, Barbary: in India confined to Sindh, Punjab, and the Himalaya and its vicinity; replaced southward by A. Pæcilorhyncha.

Anas querquerdula. ('Gargany.') Europe, Asia, N. Africa: very common in India.

Anas crecca. ('Teal.') Europe, Asia, Barbary; common in India.

Anas penelope. ('Wigeon.) Europe, Asia, N. Africa: common in India.

Fuligula ferina. ('Pochard.') Circuit of northern regions, Barbary: common in India.

Fuligula nyroca. ('Ferruginous Duck.') Europe, Asia, N. Africa: common in India.

Fuligula marila. ('Scaup Duck.') Circuit of northern regions: Punjab, Sindh, Nepal.

Fuligula cristata. ('Tufted Duck.') Europe, Asia, Barbary: common in India.

Clangula Glaucion. (*Fuligula clangula ;* 'Golden Eye.') Circuit of Northern regions N. Africa: Sindh, Punjab.

Mergellus albellus. (*Mergus albellus ;* 'Smew') Circuit of Northern regions; W. Asia, Sindh, Punjab, Oudh; apparently not rare along the Punjab rivers.

Mergus merganser. ('Goosander.') Circuit of northern regions: not rare in the Himalaya; rare in Central India (*M. orientalis* of Gould.)

Podiceps cristatus. ('Great-crested Grebe.') Europe, Asia, all Africa, America; the Australian barely separable: Himalaya, Bengal Sunderbans. Perhaps commoner than generally supposed in India, from its secluded habits and the great difficulty of procuring specimens.

Podiceps Philippensis. (*P. minor ;* 'Little Grebe.') Europe, Asia and its islands, N. Africa: very common in India.

Phalacrocorax carbo. ('Common Cormorant.') Circuit of northern regions, Barbary: common in the Himalaya; rare in Central India.

Sylochelidon caspia. (*Sterna caspia :* 'Caspian Tern.') Warmer regions of the old World generally, Australia (*S. strenuas,* Gould): not rare in parts of India; but doubtful as occurring in Lower Bengal.

Sterna paradisea. (*Sterna Dougalli ;* 'Roseate Tern.') Europe, Asia, Africa, America, Australia: coasts of India.

Sterna hirundo. ('Common Tern.') Europe Asia, Africa: S. India, Ceylon.

Hydrochelidon indica. ('*Sterna leucoparica;* 'Whiskered Tern.' Europe, Asia, Africa, Malay countries; very common in India.

Gelochelidon angelica. (*Sterna angelica ;* 'Gull-billed Tern.') Warmer regions of the old World, extending also to America; Java: common in India.

Sternula minuta. (*Sterna minuta ;* 'Lesser Tern.') Northern hemisphere; replaced in S. America and Australia by nearly affined species: common on the west-coast, and in parts of S. India.

Anous stolida. (*Sterna stolida ;* 'Noddy Tern.) Of general distribution, over the warmer parts of the ocean; common in the Indian seas.

Onychoprion fuliginosus. (*Sterna fuliginosa* 'Sooty Tern.') Very generally distributed, like the last ; Bay of Bengal.

Xema ridibunda. Larus ridibundus; ('Black-headed Gull') Europe, Asia, N. Africa : not rare in India, but less common than the nearly affined X. Brunneocephalus.

Larus fuscus. ('Lesser Black-backed Gull.') Atlantic, Mediterranean, Red Sea, Indian Ocean Cape of G. Hope, N. Zealand, Kabul (Burnes); Bay of Bengal.

Procellaria hœsitata. ('Capped Petrel.') Indian and southern oceans : a rare straggler in Britain, that has been obtained once only.

Puffinus obscurus. ('Dusky Petrel.') Tropical and S. Seas ; Australia ; rare northward.—(*Cal. : Rev. : No. IV. March* 1857.)

The migrations of birds has been the theme of poets and naturalists in all ages. Mrs. Hemans, asks of the swallows,

Birds, joyous birds of the wandering wing,
Whence is it ye come with the flowers of spring ?
" We come from the shore of the green old Nile,
From the land where the roses of Sharon smile,
From the palms that wave through the Indian sky,
From the myrrh-tree of glowing Araby.
" We have swept o'er the cities, in song renown'd,
Silent they lie, with the deserts round !
We have crossed proud rivers, whose tide hath roll'd,
All dark with the warrior blood of old ;
And each worn wing hath regained its home,
Under the peasant's roof-tree, or monarch's dome."
And what have ye found in the monarch's dome,
Since last ye traversed the blue sea's foam ?
" We have found a change, we have found a pall,
And a gloom o'ershadowing the banquet's hall,
And a mark on the floor, as of life-drops spilt,
Nought looks the same, save the nest we built !"
Sad is your tale of the beautiful earth,
Birds that o'ersweep it in power and mirth !
Yet, through the wastes of the trackless air,
Ye have a guide, and shall we despair ?
Ye over desert and deep have passed,
So shall we reach our bright home at last !

Another poet thus alludes to the migration of swallows :

" As fables tell, an Indian sage,
The Hindoostani woods among,
Could, in his desert hermitage,
As if 't were marked in written page,
Translate the wild bird's song.
" I wish I did his power possess,
That I might learn, fleet bird, from thee,
What our vain systems only guess,
And know to what wide wilderness,
You go across the sea."

The great migration of birds to and from Southern India Asia " says Mr. Hodgson, seems to take place across the mountains of Nepaul. The wading and natatorial birds, generally, make a mere stage of the valley, on their way to and from the vast plains of *India* and *Tibet*, the valley being too small, dry, open, and populous for their taste—especially that of the larger ones. Some, however, stay for a longer or shorter time, in their vernal and autumnal migrations : and some, again, remain throughout that large portion of the year in which the climate is congenial to their habits. Of all of them, the seasons of arrival, both from the north and from the south, are marked with precision ; and Mr. Hodgson was led to conclude from what he observed there, that the mass of the grallatores and swimmers are found in the plains of India, only during the cold months : for they all arrive in the valley of *Nepal*, from the north, towards and at the close of the rains ; and all as regularly re-appear from the south, upon, or soon after the cessation of the hot weather. In his enumeration of them, therefore, he divides the migratory birds into the three classes, below indicated.

1st.—Of such as usually pass over the valley, seldom alighting, and only for a few hours.

2nd.—Of such as alight and stay for a few days or, at most, weeks.

3rd.—Of such as seem to seek the valley, not as a caravansary merely, or house of call, for momentary or temporary sojourn, on their way to some remote abode—but, as their permanent dwelling place for the entire season.

A 4th class will be constituted of such as do not appear to migrate at all ; notwithstanding that all their nearest kindred (so to speak) do so regularly.

Class I. embraces,

Order NATATORES. Family *Anatidæ ; the* Genera Cygnus and Anser : Family *Colymbidæ*, none ; Family *Alcadæ*, none. Family *Pelecanidæ ;* the Genera Phalacrocorax and Pelecanus, Family *Laridæ ;* the Genera Sterna, Viralva, and Larus.

Order GRALLATORES. Family *Gruidæ ;* the Genus Grus. Family *Ardeidæ ;* the Genera Ardea, Phenicopterus, Platalea, Ciconia, Mycteria, Anastomus, Tantalus. Family *Scolopacidæ*, none. Family *Rallidæ*, the Genus Glareola. Family *Charadriadæ*, the Genera Himantopus and Œdicnemus.

Class II. embraces,

Order NATATORES. Family *Anatidæ ;* the following Genera, Tadoura, Anas, Hynchaspis, Dafila, Mareca, Querquedula, Merganser, Truligula. Family *Colymbidæ*, none. Family *Alcadæ*, none. Family *Pelecanidæ ;* the Genera Phalacrocorax and Pelecanus.

Order GRALLATORES. Family *Gruidæ ;* the Genus Apthropoides. Family *Ardeidæ*, the Genus Ibis. Family *Scolopacidæ ;* the Genera Numenius, Limicula, Recurvirostra, Limosa, Rhynchæa, Pelinda, Phæopus. Family *Rallidæ ;* the Genera Rallus, Parra, Gallinula, Porphyrio, Fulica. Family *Charadriadæ ;* the Genera Frolia, Squatarola, Vanellus, Charadrius.

Class III. embraces,

Order NATATORES. Family *Anatidæ ;* the Genera Mareca and Querquedula, (where *protected*, as in some sacred tanks). Family *Colym-*

bidæ, none. Family *Alcadæ*, none. Family *Pelecanidæ*, none.

Order GRALLATORES. Family *Gruidæ*, none. Family *Ardeidæ*, the Genera Botaurus, Ardæa, Ciconia. Family *Scolopacidæ*, the Genera Gallinago and Scolopax. Family *Rallidæ* ; the Genera Parra, Rallus, and Fulica (where protected in holy tanks). Family *Charadriadæ* ; the Genus Charadrius, (one small species of.)

Class IV. embraces,

Order NATATORES, none.

Order GRALLATORES. Family *Gruidæ*, none. Family *Ardeidæ* ; the Genera Ardea, (small species, or Baklas, only) and Nycticorax. Family *Scolopacidæ* ; the Genera Totanus ? and Gallinago ? Family *Rallidæ* ; the Genus Rallus. Family *Charadridæ* the Genus Vanellus, one species—the Tithir.

The Grallatorial and Natatorial birds begin to arrive in Nepal, from the *North*, towards the close of August, and continue arriving till the middle of September. The first to appear are the common snipe, and jack snipe, and Rhynchœa; next, the Scolopaceous waders (except the wood-cock ;) next, the great birds of the heron and stork, and crane families ; then, the Natatores ; and lastly, the woodcocks, which do not reach Nepaul till November. The time of the re-appearance of these birds, from the *South* is the beginning of March ; and they go on arriving, till the middle of May. The first which thus return to Nepaul are the snipes ; then come the teal and ducks ; then the large Natatores ; and lastly, the great cranes and storks. The Grallatores which visit Nepaul, or pass over it, are much more numerous than the Natatores. The wild swan was never seen there but once, in the mid winter of 1828, when the apparition suggested a new version of the well known hexameter.—

'Rara avis in terris, *alboque* simillima cygno.'

None of the Natatores stay in Nepaul beyond a week or two, in autumn, (when the rice fields tempt them) or beyond a few days, in spring, *except* the teal, the widgeon, and the coot, which remain for the whole season, upon some few tanks whose sanctity precludes all molestation of them. There are cormorants throughout the season upon the larger rivers within the mountains ; but none ever halt in the valley, beyond a day or two : for *so long*, however, both they and pelicans may be seen, occasionally, on the banks just mentioned.

The Larus and Sterna are birds which usually affect the high seas,—but Mr. Hodgson, had killed both the red-legged Gull, and a genuine pelagic Tern, in the valley of Nepaul. But so had he *fishing* Eagles ; and in truth, he adds, who, shall limit the wanderings of these long-winged birds in the etherial expanse ?

Larks are often domesticated in S. E. Asia. In China it is the Acridotheres cristellatus the Shantung lark. It has great facility in learning sounds and will bark, mew, crow, cough and sneeze, sometimes talk, and a single bird will fetch £6. The Acridotheres will imitate the human voice accurately. In China, a starling is often domesticated : it is lively good natured and easily tamed. They also tame the fork-tailed Parus (Leiothrix luteus of Scopoli). It is in form and habit like the robin of Britain, is pretty, olive green, black forked-tail, with wing primaries, bright yellow and red. It turns summersaults on its perch. They have a short loud song. Canaries are sold in many shops of Japan. The grackle, Gracula religiosa called the Mina is largely domesticated. The partridge, the bulbul shrike are also largely domesticated. The Hoopoe is to be seen occasionally.

The names, synonyms and localities of most of the Birds of Eastern and Southern Asia, are given in Mr. Blyth's catalogue, and are as follows :—

Class AVES, Order I. SCANSORES. Fam. PSITTACIDÆ. Subfam. CACATUINÆ. (Cockatoos).

Genus CALYPTORHYNCHUS, Vigors and Horsfield.

C. galeatum (Gould's *B. A.*, Vol. V. pl. 14.)

SYN. Psittacus galeatus, Latham.
Callocephalon australe, Lesson.

Inhabits S. Australia ; Islands in Bass's Straits ; V. D. Land.

Genus CACATUA, Brisson.

C. moluccensis (Lear's *Psittacidæ*, pl. 2.)

SYN. Psittacus moluccensis. Gmelin.
Ps. rosaceus, Latham.
Cacatua rubrocristata, Brisson.
C. erythrolophus, Lesson.

Inhabits the Moluccas.

C. cristata (Daubenton's *Pl. Enl.* 263.)

SYN. Psittacus cristatus, L.
Cacatua leucolophos, Lesson.

Inhabits the Philippines.

C. galerita (Lear's *Psittacidæ*, pl. 3 ; Gould's *B.* A. Vol. V, pl. 1.)

SYN. Psittacus galeritus Latham.
Cacatua chrysolophus, Lesson.

Inhabits (with local variation) N. Guinea, Australia, and V. D. Land.

C. sulphurea (Lear's *Psittacidæ*, pl. 4).

SYN. Psittacus sulphureus, Gmelin.
Cacatua luteocristata, Brisson.

Inhabits Timor, &c.

Subfam. PSITTACINÆ (Parrots).

Genus CORACOPSIS, Wagler.

C. nigra (Edwards, pl. 5)

SYN. Psittacus niger, L.

Inhabits Madagascar.

Genus TANYGNATHUS, Wagler.

T. macrorhynchos (Daubenton's *Pl. Enl.*, 713).

SYN. Psittacus macrorhynchos, Gmelin (the male).
Ps. sumatranus, Raffles (the female).
Ps. pileatus, Scopoli
Ps. marginatus, Gmelin } Young male ?
Kiki, Sumatra (Raffles).

Inhabits Sumatra ? Celebes ; N. Guinea.

T. malaccensis (Swainson's *Ill. Orn.*, 1st series, pl. 254).

SYN. Psittacus malaccensis, Latham (nec Gmelin).
Tana, Malayan.

Inhabits Malayan peninsula ; Sumatra.

Genus PALÆORNIS, Vigors.

P. Alexandri (Edwards, pl. 292 ; *Nat. Libr.*, *Psittacidæ*, pl. 2.)

SYN. Psittacus Alexandri, L.
Ps. eupatria, L.
Psittaca ginginiana, Brisson. } The female.
Psittacus guinneensis, Scopoli (nec guineensis, Gmelin).
Ps. Sonneratii, Gmelin.
Palæornis nipalensis, Hodgson. As. Res. XIX, 177.

Chandana (sandal-wood coloured, alluding to the yellowish tinge of the under-parts and upper portion of the back), Beng.: *Karan suga* and *Kararia* of Nepal (Hodgson) ; *Raee Totah (Royal Parrakeet)*, Hind. (Jerdon): *Kyai Phoungkha ?* Arracan. Inhabits the Hilly regions of all India Proper, from the sub-Himalayas to Ceylon inclusive : Assam ; Sylhet ; Arracan ; Tenasserim.

P. torquatus (Daubenton's *Pl. Enl.* 551).

SYN. Psittaca torquata, Brisson.
Psittacus Alexandri, var. B., Latham.
Ps. cubicularis, Hasselquist.
Ps. docilis, Vieillot.
Var. Sulphur Parrakeet, Shaw.

Tya, or *Teeah* (imitative of voice), Hind. : *Tent'hia suga*, Nepal (Hodgson) : *Lybar Totah*, S. India (Jerdon) : *Kyaigyot*, Arracan. Inhabits the Plains of India : Arracan, Tenasserim, and Malayan peninsula to the latitude of Penang. W. Africa (apud Swainson) : smaller variety.

P. bitorquatus (?)

SYN. Psittacus bitorquatus (?), Kuhl.
Ps. torquatus, var. B. (?), Latham (2nd. edit.)
Psittaca borbonica torquata (?), Brisson.

'Ring Parrakeet' of the Mauritius. Inhabits Mauritius. According to Latham *P. Bitorquatus* (*i. e.* his *Ps. torquatus*, var. *B.*,) "inhabits the Isle of Bourbon, and other parts of the same latitude both in Africa and Asia." The last named habitat is extremely doubtful.

P. columboides, Vigors, (Jerdon's *Ill. Ind. Zool.* pl. 18 ; and figured also in *Madr. Journ.* XI, 209.)

SYN. Psittacus melanorhynchus. Sykes, P. Z. S. 1832, p. 96. (The female.)

Muddun Gowr Totah, Hind. (Jerdon). Inhabits Nilgiris ; Malabar.

P. schisticeps, Hodgson, *As. Res.* XIX, 178.

SYN. Conorus himalayanus (?), Lesson, in Belanger's Voyage.
Madhuna suga, Nepal, Hodgson. The same name, slightly modified, which is applied to P. barbatus, and in S. India to P. colomboides.

Inhabits the Sub-Himalayan region, exclusively.

P. cyanocephalus (Edwards, pl. 233 ; Daubenton's *Pl. Enl.* 264).

SYN. Psittacus cyanocephalus, L.
Ps. flavitorquis Shaw.
Ps annulatus, Kuhl.
Palæornis flavicollaris, Franklin. } The female.
Psittaca bengalensis, Brisson.
Psittacus erythrocephalus, Gmelin.
Ps. gingianus, Latham.
Ps. rhodocephalus, Shaw.
Var. Ps. narcissus, Latham (with coloured figure)

Faridi, and *Fariadi* (Plaintive), Bengal. *Tuisuga* (the first or specific name imitative of cry), Nepal (Hodgson). *Tooeeah Totah*, S. India (Jerdon). *Totá bangáli*, Punjab. *Kyaita-ma*, Arracan. Inhabits the Hilly regions of all India Proper, Assam, Sylhet, Arracan Tenasserim. It occurs also in open jungle, in the Bengal Sundarbans. To the westward leaving the alluvial soil, it seems entirely to take the place of *P. torquatus*, which abounds throughout the Ganges delta.

P. Malaccensis (Daubenton's *Pl. Enl.* 887 ; Levaillant, pl. 72 ; *Nat. Libr. Psittacidæ*, pl. 3.)

SYN. Psittacus malaccensis, Gmelin, (nec Latham).
Ps. erubescens, Shaw.
Ps. ginginianus, var. C., Latham.
Ps. barbatulatus, Bechstein.
Barong Bayan, Sumatra (Raffles).

Inhabits Malacca ; Sumatra.

P. erythrogenys, Blyth.
Inhabits the Nicobar Islands.

P. caniceps, Blyth.
Inhabits the Nicobar islands ; Malayan Peninsula (latitude of Penang).

P. barbatus, (Swainson's *Ill. Orn.*, 2nd series, pl. 16 ; Daubenton's *Pl. Enl.* 517.

SYN. Psittacus barbatus, Ps. pondicerianus; et Ps. borneus, Gmelin.
Ps. bimaculatus, Sparrman.
Ps. javanicus, Osbeck.
Ps. Osbeckii, Latham.
Palæornis nigrirostris, Hodgson (the female).
Ps. modestus, Fraser, P. Z. S. 1845, p. 16 (young female).

Mádná (charming, pleasing), the red-billed bird: *Kajlá* (as having the black pigment, *kájal*, applied to the eyebrows; alluding to the black loral line),—the black-billed: Hind *Imrit Bhela* Nepal (Hodgson). *Bettet* Javanese. Inhabits the hilly parts of Bengal, Nepal, Assam, Sylhet, Arracan, Tenasserim, Malayan peninsula (to latitude of Penang), Sumatra, Java, and Borneo. It is extremely doubtful as an inhabitant of the Pondicherry coast, or any other part of peninsular India.

Subfam. PLATYCERCINÆ (Ground-Parrakeets).

Genus APROSMICTUS, Gould.

A. erythropterus, (Gould's *B. A.* Vol. V. pl. 18.)

SYN. Psittacus erythropterus, Gmelin.
Ps. melanotus, Shaw

Inhabits E. and S. Australia; Timor; N. Guinea.

Genus PLATYCERCUS, Vigors.

Pl. flaviventris, (Gould's *B.* A. Vol. V. pl. 24.)

SYN. Psittacus flaviventris, Temminck.
Ps. Brownii, Kuhl.
Ps. caledonicus? Latham.

Inhabits V. D. Land; Islands in Bass's Straits.

Sub-fam. LORIINÆ (Lories).

Section I. (With the tongue not filamented).

Genus ECLECTUS, Wagler.

E. polychloros, (Edwards, pl. 231; Daubenton's *Pl. Enl.* 514).

SYN. Psittacus polychloros, Scopoli.
Ps. magnus et Ps. sinensis, Gmelin.
Ps. viridis, Latham.
Ps. lateralis, Shaw.
Muscarinus prasinus, Lesson.

Hira-mohan ('prized favorite'), Hind. Inhabits the Moluccas.

E. grandis (Brown, *Ill. Zool.* pl. 6; Daubenton's *Pl. Enl.* 683).

SYN. Psittacus ceylonensis, Boddáert.
Ps. grandis et Ps. janthinus, Gmelin.
Ps. guebiensis, var., Latham.

Lal-mohan ('red favorite'), Hind. Inhabits the Moluccas.

Genus LORICULUS, Blyth.

L. pumilus (Edwards, pl. 293, f. 2).

SYN. Psittacus pumilis, Scopoli.
Ps. galgulus, Shaw.

Seren-dak, *Sindada*, Malayan: *Serindit*, Sum. Inhabits the Malayan peninsula, where very common: also Sumatra.

L. vernalis (Swainson's *Zool. Ill.*, 2nd series, pl. I; and figured as identical with the preceding species, apud Wagler, in *Nat. Libr.*, *Psittacidæ*, pl. 24).

SYN. Psittacus vernalis, Sparrman.

Latkan, ('pendent'), Hind. *Kyat-tha-da*, Arracan: *Silindid*, and *Silinditum*, Jav. Inhabits the Hilly parts of India, from the sub-Himalayan region to S. India, also Assam, Sylhet, Arracan, Tenasserim, Java: in the Malayan peninsula it appears to be completely replaced by *L. pumilus*; and in the Philippines and also in Ceylon, by the next species.

L. philippensis? (Edwards, pl. 6; Lear's *Psittacidæ*, pl. 41?)

SYN. Psittacus philippensis? Brisson.
Ps. asiaticus, Latham.
Ps. indicus, Gmelin.
Psittacula rubrifrons? Vigors, P. Z. S. 1831, p. 97

Inhabits Philippines (?): Ceylon.

Section II. (With filamented tongue.)

Genus LORIUS, Brisson.

L. philippensis, Brisson (Edwards, pl. 170; *Pl. Enl.* 168).

SYN. Psittacus lory, L.
L. tricolor, Stephens.

Inhabits the Moluccas; Philippines?

L. domicella (Edwards, pl. 171; *Pl. Enl.* 168; *Nat. Libr.*, *Psittacidæ*, pl. 18).

SYN. Psittacus domicella, L.
Ps. raja, Sha
Ps. rex, Bechstein.
Ps. radhea, Vieillot.

Inhabits the Moluccas.

L. garrulus (Edwards, pl. 172; *Pl. Enl.* 216; Swainson's *Zool. Ill.* 2nd series, 1; pl. 12).

SYN. Psittacus garrulus, et Ps. aurora, L.
Ps. moluccensis, Brisson.

Inhabits the Moluccas.

Subgenus EOS, Wagler.

E. rubra (Edwards, pl. 173).

SYN. Psittacus ruber, Gmelin.
Ps. borneus, Latham.
Ps. cæruleatus, Shaw.
Ps. cyanonotus, Vieillot.

Inhabits Borneo, Celebes, &c.

E. cyanostriata, G. R. Gray (*Ill. Genera of Birds*, pl. 103.

SYN. Lorius borneus, Lesson.
Blue-necked Lory, Latham.

Inhabits Borneo, Celebes, &c.

E. ornata (Edwards, pl. 174; *Pl. Enl.* 522.)

SYN. Psittacus ornatus, Gmelin.

Bangnu, and *Bandhnu*, Hind. (names referring to a mode of dyeing silk, whence *bandhana* handkerchiefs, &c.) Inhabits Eastern Archipelago (Malayan peninsula apud Raffles, but this very doubtful).

E. novae guineæ.

SYN. Psittacus novæ guineæ, Latham. } The young.
Ps. ater Scopoli. }
Ps. batavensis, Latham,—the adult.

Inhabits N. Guinea.

Genus TRICHOGLOSSUS ; Vigors and Horsfield.

Tr. hæmatodes (J. and S., *Ill. Orn.*, 1st series, pl. 111 ; *Pl. Enl.* 61).

SYN. Psittacus hæmatodes, L.
Psittaca amboinensis varia, Brisson.

Inhabits the Moluccas ; Amboyna. There have been seen several individuals devoid of the dusky marginings to the pectoral feathers, described as characteristic of this species.

Order II. RAPTORES. Tribe DIURNÆ. Fam. FALCONIDÆ. Sub-Fam. FALCONINÆ.

Genus FALCO, Lin.

F. gyrfalco, L. (*Pl. Enl.* 210 : Gould's *B. E.* pl.)

SYN. F. islandicus, Brunnich.
F. candicans, Gmelin.
F. grœnlandicus, Hancock.

Shanger, Hind. Inhabits northern regions.

F. juggur, Gray, (Hardw. *Ill. Ind. Zool.*)

SYN. F. luggur, Jerdon.

Juggur Falcon, and probably also *Justin Falcon*, Latham. *Jhaggar*, male ; *Laggar*, female ; *Hind : Luggadoo* (Jerdon), Telegu. Inhabits India generally. Common along the banks of the Ganges above the tideway ; rare and accidental in Lower Bengal within the reach of the tides.

F. peregrinus, L. (*Pl. Enl.* 421, 430, 469, 470).

SYN. F. barbarus, L.
F. communis, Brisson.
F. hornoticus and F. ater, Gmelin.
F. lunulatus, Daudin.
F. abietinus, Bechstein.
F. calidus, Latham.
F. anatum, Bonap.

Bauri, H. (female) : *Bauri Batcha* (male), H. : *Raja Wali*, Malay : *Sikap Lang*, Sum. : *Lagi Angin* of the Passummahs. Inhabits the Northern hemisphere chiefly : common in India, many adults remaining in Lower Bengal during the cold season, and especially frequenting the vicinity of jheels, to prey on the water-fowl which resort to them ; hence they are tolerably numerous in the Sunderbans.

F. peregrinator, Sundevall (Jerdon's *Ill. Ind. Zool.* pl. 12, 28.)

SYN. F. shahin, Jerdon.
F. sultaneus, Hodgson.
F. ruber indicus, Aldrovand.

Shahin ('royal') female ; *Koela* ('charcoal'), male : H. Inhabits India generally ; chiefly the hilly parts : much more rare in Lower Bengal than *F. peregrinus*.

F. chicquera, Shaw (Lev. *Ois d'Afr.*, t. 30 ; Gould's *Century*, pl. 2).

SYN. F. ruficollis, Swainson.
F. cirrhatus, var., and
Fasciated Falcon, Latham.
Probably F. biarmicus apud Vigne, P. Z. S. 1841 p. 6.

Tarmati, (*Turumtee*, Jerdon, *Toomtra*, Burnes), female ; *Chetwa* or *Chetoya*; male : H. Inhabits Asia and Africa ; very rare in the S. of Europe : common in India.

Sub-genus HYPOTRIORCHIS, Boie.

H. severus (*Pl. Col.* 128.)

SYN. Falco severus, Horsfield.
F. Aldrovandi. Reinwardt.
F. guttatus, G. R. Gray.
F. rufipedoides, Hodgson.

Jhuter quære (*Játá*, 'there goes ?'), H. : *Allap Allap Gingeng*, Jav. Inhabits Himalaya, Java, Philippines : visiting the plains of Lower Bengal in the cold season, where somewhat rare.

H. subbuteo.

SYN. Falco subbuteo, L.
F. barletta, Daudin.
F. pinetarius, Shaw ?

Karjanna, H.: Surkhpushtak ('rufous-vent'), of Kabul (Burnes). Inhabits Europe, Asia, and Africa : visits Lower Bengal in the cold season where far from common.

Subgenus TINNUNCULUS, Vieillot.

T. alaudarius.

SYN. Falco alaudarius, Brisson.
F. tinnunculus, Linnæus.
F. interstinctus, McClelland.
F. fasciatus, Retzius.
F. brunneus, Bechstein.

Khurmutia, Kurrowtia, Karontea, and *Narzi-Narzanak* ('tete a tete'), H. : *Nardunak*, Sinde ; (Burnes) ; *Gyo-thin*, Arracan ; *Allap Allap Sapi*, Jav. (Horsf.) Inhabits Europe and Asia : very common in Lower Bengal, where frequently seen in parties of 20 or 30 individuals, beating over the cultivated lands.

T. cenchris (Gould's B. E. pl.)

SYN. Falco cenchris, Naumann.
F. tinnunculoides and F. xanthonyx, Natterer.
F. tinnuncularius, Vieillot.
F. Naumannii, Fischer.

Inhabits the warmer parts of Europe and Asia ; and found near Calcutta ; also N. Africa.

T. vespertinus (Pl. Enl. 431 : Gould's *B. E.* pl.).

SYN. Falco vespertinus, L.
F. rufipes, Beseke.
F. subbuteo, var, Latham.

Inhabits Europe and Asia.

T. æsalon (Pl. Enl. 447, 468 : Gould's *B. E.* pl.).

SYN. Falco æsalon and F. lithofalco, Gmelin.
F. regulus, Pallas.
F. cæsius, Meyer.
F. intermixtus, Daudin.

Inhabits Europe and Northern Asia, N. W. Himalaya ?

T. punctatus (Pl. Col. 45.*)*

SYN. Falco punctatus, Cuvier.

Inhabits Madagascar ; Mauritius.

Genus HIERAX, Vigors.

H. melanoleucos, Blyth (J. A. S. XII, 179—*bis*). Inhabits Assam.

H. eutolmos, Hodgson.

SYN. H. bengalensis, apud Blyth, J. A. S. XII, 180
(bis) Bengal Falcon, var, A., Latham.

Doung-oo-nhouk, Arracan. Inhabits Nepal ; Sylhet ; Arracan.

H. fringillarius, (Dict. Class. d'Hist. Nat. pl. 21 : *Pl. Col.* 97*)*.

SYN. Falco fringillarius, Drapiez.
Hierax malayensis, Strickland.
Malayan F. cærulescens, auctorum,

Seeap Belang Penang : *Allap*, or *Allap Allap*, Java. Inhabits Western Malasia : replaced by other species in the more Eastern Islands.

Subfam. PERNINÆ.

Genus BAZA, Hodgson.

B. lophotes (Pl. Col. 10.*)*

SYN. Falco lophotes, Temminck.
B. syama, Hodgson.
Falco et Lepidogenys Lathami, Gray.
Lophotes indicus, Lesson.

Syama, ('black'), Nepal. Inhabits India generally ; rarer to the South ; not uncommon during the rainy season in Lower Bengal.

B. Jerdoni.

SYN. Lophastur Jerdoni, Blyth, J. A. S. XI, 464.

Probably *Falco Reinwardtii*, Muller. Inhabits Malayan peninsula.

Genus PERNIS, Cuvier.

P. cristata, Cuvier (Pl. Col. 44*)*.

SYN. Falco ptilorhynchus, Temminck.
P. Elliotti, Jameson.
P. maculosa, and probably P. torquatus, ruficollis, and atrogularis, Lesson.

Madhava, (from ***Madhu***, 'honey'), Nepal (Hodgson) : *Shahutela*, (from *Shahut*, 'honey'), H, (Jerdon). Inhabits India generally. Not rare in Lower Bengal.

Subfam. ELANINÆ.

Genus ELANUS, Savigny.

E. melanopterus (Lev., *Ois d'Afr.* t. 36.)

SYN. Falco melanopterus, Daudin.
F. sonninensis et vociferus, Latham.
F. clamosus, Shaw.
E. cæsius, Savigny.
Petite Buse Criarde, Sonnerat.
Kotta Falcon, and (the young) Indian Falcon, Latham.

Kapasi, ('cottony'), H. : *Angkal Angkal*, Java. Inhabits S. Asia ; Malayan Archipelago ; and all Africa, if not also the extreme S. of Europe occasionally ; common in Lower Bengal, and generally over India.

Subfam. CIRCAETINÆ.

Genus CIRCAETUS, Vieillot.

C. gallicus (Pl. Enl 413.*)*

SYN. Falco gallicus, Gmelin.
F. brachydactylus, Temminck.
F. leucopsis, Bechstein.
F. longipes, Wilson.
Aquila leucamphomma, Borkh.
A. pygargus, Brisson.

Sap-marilo, ('snake-killer'), Beng. : *Samp-mar* (ditto), H. : *Mulpatu*, Can. Inhabits Europe, Asia, and Africa. Common on the plains of India, preferring an open country. It preys chiefly on snakes.

Genus HÆMATORNIS, Vigors.

H. cheela (Gould's *Century*, pl. 1.)

SYN. Falco cheela, Latham.
H. undulatus, Vigors.
Circäetus nipalensis, Hodgson.
H. et Buteo bacha, apud Franklin and Sykes.
F. albidus, Cuv., and Buteo melanotis, Jerdon, the young.

Tilai-baj ('spotted Hawk'), Beng. : *Sabchur* ('full-crested'), young. *Goomcan-mooryala*, Mahr. : *Doung-tswon*, Arracan. Inhabits India generally : extremely common in Lower Bengal ; preferring a jungle country, with shallow jheels and tanks, where it preys much on frogs which it clutches in the mud.

H. bido.

SYN. Falco bido, Horsfield, Lev. Ois d'Afr. t. 15.
F. bacha (?), Daudin.
F. cheela, var. ?

Bido, Javan. Inhabits Malay countries, Africa ?

Subfam. CIRCINÆ.

Genus CIRCUS, Lacepede.

C. æruginosus (Gould's B. E. pl. 32).

SYN. Falco æruginosus, L.
F. rufus, Gmelin.
F. arundinaceus, Bechstein.
Accipiter circus, Pallas.
Circus palustris, Brisson.
C. variegatus, Sykes.
C. rufus var, indicus, and C. Sykesi, Lesson.
Konta Falcon, Muskooroo Falcon, and Rufous-eared Falcon, Latham.

Ch'oa or *Mat Chil* ('Meadow Kite'), Beng. (generic): *Kutar*, and *Kulehsir* (capped), Hind. *Sufid Sira* ('white-headed'), and *Tika Bauri* (Hawk with the *tika* frontal mark), (B. Ham). Inhabits Europe, Asia, and Africa.

C. cyaneus (Gould's *B. E*, 33).

SYN. Falco cyaneus, Linn.
F. bohemicus, albicans, griseus, et montanus, Gmelin, &c. &c.
F. uliginosus, (?), Gmelin.

Tupoos, or *Moosh-khor* (rat-eater), of Kabul (Burnes). Inhabits Europe and middle Asia: replaced on the plains of India by the next species.

C. Swainsonii, A. Smith (Gould's *B. E.* pl. 34.)

SYN. C. pallidus, Sykes.
C. dalmaticus, Ruppell.
C. albescens, Lesson.
Falco herbæcola, Tickell ?)
F. cyaneus, var. A. Latham.

Dast-mal ('hand-soiler'), Hind.: *Teea* (Burnes, from the voice), Derajat: '*Pandouvi* (B. Ham.); Inhabits India and Africa; very rare in Europe. Less Common in Lower Bengal than C. cinerascens.

C. cinerascens (Gould's *B. E.* pl. 35).

SYN. Falco cinerascens, Montagu.
C. Montagui, Vieillot.

Inhabits Europe, Asia, and Africa: all India; Ceylon.

C. melanoleucos.

SYN. Falco melanoleucos, Pennant.

Pahatai, H.: *Ablak Petaha* ('Pied Harrier'? ; *Petaha*, &c., probably from the voice), Nepal, (H.) *Thin-kya*, Arracan. Inhabits India generally inclusive of Ceylon.

Genus POLIORNIS, Kaup.

P. teesa. (Hardw. Ill. Ind. Zool.)

SYN. Circus teesa, Franklin.
Astur hyder, Sykes.
Zuggun Falcon, Latham.

Tisa, or *Teesa*, (from the voice), Hind. Inhabits plains of India, where very abundant: never met with on the mud-soil of Lower Bengal, though appearing immediately this is quitted in a westerly direction: Tenasserim provinces; Malacca ?

Subfam. ACCIPITRINÆ,

Genus ACCIPITER, Ray.

Acc. nisus (*Pl. Enl.* 467, 412).

SYN. Falco nisus, L.
F. nisosimilis, Tickell, J. A. S. II, 571.
A. fringillarius, Ray.
A. Dussumieri apud Jerdon, Madr. Journ. X. 84.
Bassun Falcon, Latham.

Basha, female;—*Bashin*, male—Hind. Inhabits Europe, Asia, and N. Africa; in India, numerous in the hilly parts, rare and accidental on the alluvium of Lower Bengal.

A. nisoides, Blyth, (J. A. S. XVI, 727.)

SYN. Falco soloensis (?), Horsfield.
F. cuculoides (?), Temminck, P. C. 110, 129.
Sumatran Acc. fringillarius of the Appendix to Lady Raffles's Memoirs of Sir T. S. Raffles, p. 549.

Sikap Ballam (?), Sum.: *Allap Allap Lallar* (?) Jav. Inhabits Malayan Peninsula.

A. virgatus (Jerdon's *Ill. Ind. Zool.* pl. 4, 29).

SYN. Falco virgatus, Temminck, P. C, 109.
Nisus minutus, Lesson (apud G. R. Gray).
A. besra, Jerdon; and the female.
A. fringillarius apud Jerdon Catal.
A. Dussumieri apud Sykes.

Basra (dimunitive of *Baz*, 'Goshawk'), and the male—*Dhasti* ('a handful', 'or held in the hand'), Hind. Inhabits India generally, but chiefly the hilly parts; also the Malay countries: rare and accidental in Lower Bengal.

Genus MICRONISUS, G. R. Gray.

M. badius, (*Pl. Col.* 308, 336).

SYN. Falco badius, Gmelin.
F. Brownii, Shaw.
F. Dussumieri, Temminck (nec apud Sykes's or Jerdon's Catalogues).
Accipiter dukhunensis, Sykes.
Calcutta Sparrow-hawk and Chippuck Falcon, Latham.

Shikra, from *shikar karna*, to pursue game), female, *Chippuck* (or *Chipka* Jerdon, from the voice), male H. *Thinkyet-ma*, Arracan. Inhabits India generally and Malay countries, being numerous throughout India, and in Ceylon; not uncommon in Afghanistan.

Genus ASTUR, Bechstein.

A palumbarius (*Pl. Enl.* 418, 461, 423).

SYN. Falco palumbarius et F. gentilis, L.
F. gallinarius, Gmelin.
F. albescens, Boddâert.
Accipiter astur, Pallas.

Baz or *Baz Khani*, female. *Jurra*, male, Hind. The *Kurungosh* is probably a variety. Inhabits Europe and Asia: in India, confined (or nearly so) to the sub-Himalayas.

A. trivirgatus (*Pl. Col.* 303).

SYN. Falco trivirgatus, Reinwardt.
Astur indicus, Hodgson.
A. palumbarius apud Jerdon, Madr. Journ. No. XXIV, 85.
S. cristatus, G. R. Gray.
Spizaetus rufitinctus, McClelland, P. Z. S. 1839.

Gar (fort or Mountain) *Bazra*, *Manik* (esteemed) *Bazra*, *Koteswar*, (fort-chieftain), H.: *Churiali*, frequenting peaks), Nepal. Inhabits India and Malay countries; being confined to the hilly parts.

Subfam. THRASAETINÆ.

Genus PSEUDASTUR, Blyth.

Ps. pæcilonotus (*Pl. Col.* 9).

SYN. Falco pæcilonotus, Cuvier.
F. skotopterus, Pr. Max.

Inhabits S. America.

Genus SPIZAETUS, Vieillot.

Sp. nipalensis.

SYN. Nisaetus nipalensis, crested variety, Hodgson, J. A. S. V. 229.
N. pulcher. Ibid., J. A. S. XII. 305.
Falco orientalis (?) et F. lanceolatus (?) Temminck and Schlegel.

Inhabits Himalaya, and mountain ranges N. of Sylhet.

Sp. limnaetus (*Pl. Col.* 127, 134).

SYN. Falco limnaetus, Horsfield.
F. caligatus, Raffles.
F. niveus, Temminck.
Limnaetus unicolor, Vigors.
Nisaetus nipalensis, crestless variety, Hodgson, J. A. S. V. 229.
N. pallidus, ibid, young.
Lake Falcon, Bauj Eagle, and probably Jerwied Eagle, Latham.
Lang Tanjbikar, Sum. Waru rawa, Sav.
Var. Falco cristatellus, Temminck.
F. Lathami, Tickell.
F. cirrhatus (?), Gmelin.

Shah Baj, and *Sadal*, Hind. Inhabits India and Malay countries; the crested variety found chiefly in the peninsula of India.

Sp. alboniger.

SYN. Nisaetus alboniger, Blyth, J. A. S. XIV. 173.

Inhabits Malayan peninsula (Penang, Malacca).

Sp. Kierneri.

SYN. Astur Kierneri, de Sparre.
Spizaetus albogularis, Tickell, J. A. S. XI. 456

Inhabits Himalaya; Central India.

Subfam. AQUILINÆ.

Genus EUTOLMAETUS, Blyth.

Eu. Bonellii (Jerdon's *Ill. Ind. Orn.* pl. I.)

SYN. Falco Bonellii, Temminck.
Aquila intermedia, Bonelli.
Aq. fasciata, Vieillot.
Nisaetus grandis, Hodgson, J. A. S., V. 230.
N. niveus ? apud Jerdon, Catal.
Genoese Eagle, Latham.

Moranga, or *Morangi*, Hind. Inhabits S. of Europe and Asia, and N. Africa. Nepal.

Genus AQUILA, Meyer.

Aq. chrysaetos.

SYN. Falco chrysaetos, F. fulvus, at F. melanaetus L.
F. niger, Gmelin.
F. melanotus, Latham.
Aquila nobilis, Pallas.
Aq. regia, Lesson.

Inhabits mountainous regions of Europe, Asia, and N. America, within the temperate zone, Himalaya and Nepal.

Aq. imperialis.

SYN. Falco imperialis, Bechstein.
F. mogilnik, Gmelin.
F. ferox, and Brown-backed Eagle, Latham.
Aquila heliaca, Savigny.
Aq. bifasciata, Gray.
Aq. nipalensis, Hodgson, As. Res. XVIII. pt. II, 13, pl. I.
Aq. chrysaetos apud Meyer et Jerdon, Catal.

Jumiz, or *Jumbiz*, Hind.: *Frus*, Bengal: *Wonlo*, Arracan. Inhabits S. E. of Europe, Asia, N. Africa, Mymunseng, Arracan, and Nipal.

A. nævioides.

SYN. Falco nævioides, Cuvier.
F. rapax. Temminck.
F. senegallus, Cuvier.
F. albicans, Ruppell.
F choka, A. Smith.
A. fulvescens, fusca, et punctata, Gray.
A. vindhiana, Franklin.

Wokhab, also *Jimach* (vide J. A. S. XV. 8), Hind. Inhabits the Plains of India and Africa generally: but not found on the alluvium of Lower Bengal.

A. nœvia.

SYN. Falco nævius et F. undulatus, Gmelin.
A. malanaetus, Savigny.
A. clanga, Pallas.
A. bifasciata, Hornsch.

Spotted Eagle, and *Brown-backed Eagle* var. A. Latham. *Kaljanga*, *Bakayari*. *Jiyadha* (B. Ham.) Inhabits S. E. of Europe, Asia, and N. Africa. Common in the Bengal Sunderbans, and found likewise in Central and S. India.

Aq. hastata.

SYN. Morphnus hastatus, Lesson.
Spizaetus punctatus, Jerdon.
Limnaetus unicolor apud Blyth, J. A. S. XII. 128.

Jiyadha, and *Gutimar* ('Cocoon-destroyer'), H. Inhabits, Common in the Bengal Sunderbans, and found likewise in Upper Bengal, and in Central and S. India.

Genus ICTINAETUS, Jerdon (nec Kaup).

I. malaiensis.

SYN. Falco malaiensis, Reinwardt.
Aquila et Heteropus et Neopus perniger, Hodgson.
Nisaetus ? ? ovivorus, Jerdon.
Black Eagle, Jerdon, Catal, and Sup.

Inhabits S. E. Himalaya; Nilgiris; Malay countries.

Genus HIERAETUS, Kaup,

H. pennatus.

SYN. Falco pennatus, Gmelin.
F. lagopus, Bengal variety, Latham.
Aquila minuta, Brehm.
Spizaetus milvoides, Jerdon.
Butaquila strophiata, Hodgson.

Inhabits S. E. of Europe, and Asia: India generally.

Subfam. BUTEONINÆ.

Genus ARCHIBUTEO, Brehm.

A. *hemiptilopus*, Blyth. (J. A. S., XV. 1).

SYN. A. cryptogenys, Hodgson, Calc. Journ. Nat. Hist. VIII. 96.

Inhabits Tibet; Sikim? Darjiling.

Genus BUTEO, Cuvier.

B. rufinus.

SYN. Falco rufinus, Ruppell.
B. canescens, Hodgson.
B. longipes, Jerdon.
Circus pectoralis (?), Vieillot.
Nasal Falcon, Latham.

Chuha mar ('Rat-killer'), Hind. Inhabits India generally; plains and lower hills. In Lower Bengal, found only above the tideway of the river: also N. Africa.

B. vulgaris, Bechstein (Jerdon's *Ill. Ind. Orn.* pl. 27.).

SYN. Falco buteo, Lin.
F. glaucopis, Merrem.
F. variegatus, Versicolor, cinereus, et obsoletus, Gmelin.
B. mutans et fasciatus, Vieillot.
B. albus, Daudin.
B. communis, Cuvier.
B. Swainsoni, Pr. Bonap.
B. montanus, Nuttall.
B. rufiventer, Jerdon.

Inhabits northern hemisphere; rare and to the northward only in America. The loftier hills, only, in India.

B. pygmæus, Blyth (J. A. S. XIV. 177).

Inhabits Tenasserim provinces.

Subfam. HALIAETINÆ.

Genus PANDION, Savigny.

P. haliaetus.

SYN. Falco haliaetus, L.
P. fluviatilis, Savigny.
P. indicus, Hodgson.
Bengal Osprey, Latham.

Match-morol, and *Bulla*, B.: *Mucherera*, H. (Jerdon); also *Match-manga*, H.: *Wonlet*, Arracan. It is of general distribution; the Australian race (*P. leucocephalus*, Gould,) alone slightly differing. Common throughout India, in all suitable localities.

Genus PONTOAETUS, Kaup.

P. icthyaetus.

SYN. Falco icthyaetus, Horsfield.
Icthyaetus bicolor, G. R. Gray.
I. plumbeus, Hodgson, J. A. S. VI., 367.

Match-morol ('Fish-tyrant'), Beng.: *Madhuya*. H. (B. Ham): *Jokomaru*, Java. Inhabits India and Malay countries: common in Lower Bengal.

P. nanus.

SYN. Icthyaetus nanus, Blyth, J. A. S. XI, 202, and XII, 304.

Inhabits Malayan peninsula.

Genus BLAGRUS, Blyth.

Bl. leucogaster.

SYN. Falco leucogaster, Gmelin.
F. blagrus (?), Daudin.
F. dimidiatus, Raffles.
F. albicilla, var.; Latham.
Icthyaetus cultrunguis, Blyth, J. A. S. XI. 110, the semi-adult.
Haliaetus sphenurus, Gould, young.

Sumpamar Eagle, the semi-adult; and *Maritime Eagle*, the adult, Latham. *T'hampa-mar* ('snake-killer'), Orissa; *Kohasa*, H.: *Lang-laut*, Sum. Inhabits India; Africa (?); the Malay countries; Australia, and the vicinity of Calcutta.

Genus HALIAETUS, Savigny.

H. Macei.

SYN. Falco Macei, Temminck.
H. albicilla apud Vigors and Horsfield.
H. ossifragus (?) apud Raffles.
H. fulvigaster, Vieillot.
H. albipes, Hodgson.
H. lineatus, (the young), and H. unicolor, (the semi-adult), Gray (Hardw, Ill, Ind. Zool.)

Mutcharang, *Mutch-manggar*, *Korol*, or *Match-korol* ('Fish-Eagle'), and *Bala*, *B.*: *Kokna*, or *Oogoos* (Tickell): *Lang-laut*, Sum. Inhabits Northern India generally: abundant in Lower Bengal, and the vicinity of Calcutta.

Genus HALIASTUR, Selby.

H. Indus.

SYN. Falco indus, Boddaert.
F. pondicerianus, Gmelin.
Milvus rotundicaudatus, Hodgson (young.)

Sankar Chil ('Shiva's kite'), *Dhobia Chil*, ('Washerman's kite'), and *Ru-mabarik*, ('Lucky-faced,' *i. e.* propitious), Hind. *Khemankari*, Sanskrit. *Rutta Ookab*, Sind. (Burnes), also *Pilyo*: *Tswon-goung phyoo*, Arracan: *Lang-bondol*, Sumatra: *Ulang*, Java. Inhabits India and Malay countries: extremely common.

Genus MILVUS, Cuvier.

M. ater.

SYN. Falco ater et F. austriacus, Gmelin.
M. govinda, Sykes.
M. ætoleus, Lesson.
M. affinis, (?), Gould.

Chil (from the voice), or *Pariah Chil*, *H.* *Tswon bop*, Arracan. Inhabits India; Malayan peninsula (Penang); Australia? Rare in the eastern parts of Europe. An abundant summer visitant in Afghanistan.

Fam. VULTURIDÆ.

Subfam. VULTURINÆ.

Genus VULTUR, L.

Gidh, (Hind). *Shakuni*, Beng. *Gid Gerni*, Tickell.

V. monachus, L.

SYN. V. cinereus, Gmelin.
V. arrianus, Temminck.
V. imperialis, Tem. (p. c. 426), apud Jerdon (in epistolâ.)
Ægypius niger et vulgaris, Savigny.

Inhabits mountainous parts of Europe and Asia. Nepal, Assam.

Genus OTOGYPS, G. R. Gray.

O. calvus.

SYN. Vultur calvus, Scopoli.
V. pondicerianus, Daudin.

Mulla-Gidh ('Priest Vulture'), H.: *Lal-mata Shukuni* ('Red-headed Vulture'), Beng. Inhabits India generally: common.

Subfam. GYPINÆ.

Genus GYPS, Savigny.

G. fulvus.

SYN. Vultur fulvus, Gmelin.
V. Kolbii. Daudin (apud Dr. A. Smith and G. R. Gray.)
V. percnopterus, Pallas (nec Linnæus).
V. leucocephalus, Meyer.
V. indicus apud Jerdon. Catal.
Gyps vulgaris, Savigny.

Maha-dho of the Mahrattas. Inhabits mountainous regions of the Old World; Nepal.

G. indicus (Gray's *Ill. Gen. Birds*, pl.).

SYN. Vultur indicus, Scopoli and Latham.
V. bengalensis apud Temminck (Jerdon in epistolâ).
V. tenuiceps et tenuirostris, Hodgson.

Inhabits India and Malay countries: common.

G. bengalensis (Hardwick's *Ill. Ind. Zool.*)

SYN. Vultur bengalensis, Gmelin, the young.
V. indicus apud Temminck (young, apud Jerdon in epistolâ).
V. chaguoun, Daudin. } Adult.
V. leuconotus, Gray. }

Lengta. Arracan. Inhabits India generally; very abundant. A summer visitant in Afghanistan.

Subfam. SARCORHAMPHINÆ.

Genus SARCORHAMPHUS, Dumeril.

S. papa, Pl. Enl. 428.)

SYN. Vultur papa, L.

Inhabits S. America.

Genus NEOPHRON, Savigny.

N. percnopterus, Pl. Enl. 407, 429).

SYN. Vultur percnopterus, Lin. (nec Pallas).
V. leucocephalus et V. fuscus, Gmelin.
V. ginginianus et V. albus, Daudin.
V. meleagris, Pallas.
V. fulvus, Boddaert.
V. stercorarius, La Peyrouse.
Perenopterus ægyptiacus, Stephens.

Soongra, or *Soonda*, Scinde (Burnes). Inhabits warmer regions of Europe, Asia, and Africa: abundant on the plains of India; rare and accidental below the tideway of the rivers in Lower Bengal. A summer visitant in Afghanistan.

Subfam. GYPAETINÆ.

Genus GYPAETOS, Storr.

G. barbatus, (Edwards, pl. 106).

SYN. Vultur barbatus et V. barbarus, Linn.
V. niger, Gmelin.
V. aureus, Brisson.
Falco magnus, S. Gmelin.
Phene ossifraga, Savigny.
Gypaëtos grandis. Storr.
G. alpinus, Daudin.
G. leucocephalus et G. melanocephalus, Meyer.
G. meridionalis. Brehm.
G. barbatus, var. occidentalis et var. orientalis, Fr. Bonap.
G. hemachalanus, Hutton (with dark pectoral mark), J. A. S. III. 522.
Bearded Eagle, Latham.

'Golden Eagle' of English residents in the Himalaya. *Urgool*, Masuri (Hutton). *Cajcer*, or *Foomaee*, Kabul (Burnes). Inhabits mountainous regions of Europe, Asia, and Africa.

Tribe II.—NOCTURNÆ.

Fam. STRIGIDÆ.

Subfam. BUBONINÆ.

Genus NYCTEA, Stephens.

N. nivea. (Gould's *B. E.* pl. 43).

SYN. Strix nivea, Daudin.
Str. nyctea, Linn.
" candida, Latham.
N. erminea, Stephens.

Inhabits Arctic circle, migrating within the northern temperate zone.

Genus BUBO, Sibbald.

B. orientalis, (*Pl. Col.* 174, 229).

SYN. Strix orientalis, Horsfield.
S. sumatrana, Raffles.
S. strepitans, Temminck.
B. et Huhua nipalensis, Hodgson.
H. pectoralis, Jerdon.

Inhabits Himalaya, S. India, and Malay countries.

B. maximus, Sibbald (Gould's *B. E.* pl. 37).

SYN. Strix bubo, L.
B. atheniensis, Daudin.
B. europæus, Lesson.

Inhabits Europe and N. Asia: Himalaya?

B. bengalensis (Gould's 'Century,' pl. 3).

SYN. Otus bengalensis, Franklin.
Bubo cavearius et Urrua cavearea, Hodgson.

Ghoogoo, H. (Jerdon). Inhabits India generally: Afghanistan: but not met with below the tideway of the rivers in Lower Bengal.

B. umbratus.

SYN. Urrua umbrata, Blyth J. A. S. XIV. 180.
Strix coromander, coromandra, et coromandelica, auctorum?
Str. coromanda, var., Latham.

Inhabits India generally.

Genus ASIO, Brisson.

A. otus (Pl. Enl. 29).

SYN. Strix otus, L.
Str. soloniensis, Gm.
Otus europæus, Stephens.
O. communis, Lesson.
O. vulgaris, Fleming.

Inhabits Europe and N. Asia, Himalaya.

A. brachyotus (Gould's *B. E.* pl. 40).

SYN. Strix brachyotus, Gmelin.
Str. ulula, S. ægolius, et S. accipitrina, Pallas.
S. arctica, Sparrman.
S. tripennis, Schrank.
S. palustris, Smies.
S. brachyura, Nilson.
Brachyurus palustris, Gould.

Chota Ghooghoo, H. (Jerdon). Inhabits Europe, Asia, Africa, N. and S. America, Calcutta.

Genus SCOPS, Savigny.

Sc. aldrovandi, Ray (Gould's *B. E.* pl 48; Jerdon's *Ill. Ind. Orn.*, pl. 41, chesnut variety).

SYN. Strix scops, Linnæus.
Str. zorca et S. giu, Scopoli.
S. carniolica, Gmelin.
Sc. europæus, Lesson.
Sc. senegalensis, Swai
Sc, capensis, Smith.
Sc. sunia (chesnut va[illegible] and S. pennata (grey variety), Hodgso[illegible]
Sc. Malayanus, A. Hay.
Ephialtes spilocephalus, [illegible] J. A. S. XV. 8
(?) Large specimen in [illegible]ture plumage ?
Otus Scops japonicus, Tem. [illegible] G. R. Gray.
Strix bahkamæna (?), Pennant.

Chitta Gool, Telinga (Jerdon): *Chugad Kusial*, or *Sunya Kusial*, Nepal (H.) Inhabits Europe, Asia, and Africa. Himalaya; Pen.: of India, Calcutta.

A. *lempiji, (Pl. Col. 99).*

(Var. A. Malayan race, in general deeply tinged with fulvous.)

SYN. Strix lempiji, Horsfield.
Str. noctula, Reinwardt.
Scops javanicus, Lesson.

Lempiji, Java. (Var. B. Larger race, but seldom tinged with fulvous: inhabiting the Himalaya, Assam, Sylhet, and Arracan.) *Sc. lettia*, Hodgson. *Tharkavi Chugad*, or *Lattya Kudyal*, Nepal (H.) (Var. C. Ordinary Indian race resembling the last, but generally smaller and greyer in colour,—being, when slightly tinged fulvescent, the *Sc. lempiji* apud Jerdon of Malabar and Ceylon. *Sc. lettioides* et *griseus*, Jerdon Inhabits (in different varieties.) India, China (?), and the Malay countries. Malacca (the undoubted *lempiji*). Var. B. F. N. W. Himalaya. Nepal. Arracan (Ramree.) Coromandel Coast (sent as *lettioides*, Jerdon): and two from Malabar (sent as *lempiji*.) T. C. Jerdon, Esq. (1844-6). Specimen (resembling last), from Ceylon. E. L. Layard, Esq. (1849.)

Genus KETUPA, Lesson.

K. flavipes.

SYN. Cultrunguis flavipes. Hodgson, J. A. S. XV. 364.

Inhabits Himalaya only (so far as hitherto observed).

K. ceylonensis.

SYN. Strix ceylonensis, Gmelin.
Str. Leschenaultii, Temminck.
S. Hardwickii, Gray.
S. dumeticola, Tickell.
Cultrunguis nigripes, Hodgson.

Ulu (generic), H.: also *Amrai ka Ghooghoo*, H. (Jerdon): *U'tum*, Beng.: *Tee-dook*, Arracan. Inhabits India generally; Arracan; Tenasserim. Very common in Lower Bengal, near Calcutta.

K. javanensis, Lesson.

SYN. Strix ketupu, Horsfield.
Str. ceylonensis apud Temminck.

Tamba, or *Ketombo Ratonapye; Hanta; Burong Pelow;* Malayan: *Blo-Ketupu*, Java. Inhabits Malayan peninsula and Archipelago; rare in Arracan. Specimen from Java.

Subfam. ATHENINÆ.

Genus NINOX, Hodgson.

N. scutulatus (Pl. Col. 289.)

SYN. Strix scutulata, Raffles.
Str. hirsuta, Temminck.
S. lugubris, Tickell.
Ninox nipalensis, Hodgson.
Athene malayensis, Eyton.

Kal Pancha, Beng.; *Choghud Besrah*, H. Jerdon): *Kheng-boop*, Arracan: *Raja Wali*, Malayan. Inhabits India generally; Tenasserim provinces; Malayan peninsula; Sumatra: not rare in Lower Bengal. Madagascar (Dr. A. Smith, *Afr. Zool.* p. 163).

Genus ATHENE, Boie.

Ath. cuculoides (Gould's 'Century,' pl. 4).

SYN. Noctua cuculoides, Vigors.
N. auribarbis, Hodgson.

D'zee-geet, Arracan. Inhabits Himalaya; Assam; Arracan; Tenasserim; China.

Ath. radiata.

SYN. Strix radiata, Tickell, J. A. S. II. 573 (1833).
Athene erythropterus, Gould. P. Z. S. 1837, p. 136.
Noctua perlineata, Hodgson.
N. cuculoides apud Jerdon, Catal.

Jungli Choghud, H. (Jerdon): *Chota Kalpancha*, Beng.: *Chugad*, Nepal (H.) Inhabits most parts of India; sub-Himalayan region: never on the alluvium of Lower Bengal, but appears immediately—this is quitted in a westerly direction.

Ath. malabarica, Blyth (J. A. S. XV. 280).

SYN. A. castanoptera apud Jerdon, supp.

Inhabits Malabar.

Ath. castanotus, Blyth.

SYN. Ath. castanoptera apud Blyth, J. A. S. XV. 280.

Inhabits Ceylon, (where common.

Ath. brama (Pl. Col. 68*).*

SYN. Strix brama, Temminck.
Str. persica ? Nouv. Dict. d' Hist. Nat.
Noctua indica, Franklin.
N. tarayensis, Hodgson.

Katoria Pencha, Beng.: *Chugad*, or *Choghud*. H.: *Panglah*, Mahratta. Inhabits India generally to foot of Himalaya ; extremely common in Lower Bengal : Persia, at about Erzeroum.

Ath. noctua (Gould's *B. E.* pl. 48).

SYN. Strix noctua, Retzius.
Str. passerina apud Latham and Temminck.
S. nudipes, Nilsson.
Noctua veterum, Lichtenstein.
Athene gymnopus, (?), Hodgson.
Ath. bactrianus, Blyth, J. A. S. XVI. 776.

Inhabits Europe ; N. and W. Asia ; Afghanistan ; Himalaya (?) ; N. Africa.

Ath. passerina (Gould's *B. E.* pl. 50).

SYN. Strix passerina, Linnæus.
Str. pygmæa, Bechstein.
Str. acadica, Temminck.

Inhabits N. Europe and Asia.

Ath. Brodiei.

Syn. Noctua Brodiei, Burton, P. Z. S. 1835, p. 152.
N. tubiger and Athene baudia, Hodgson.

Inhabits Himalaya.

Subfam. SYRNIINÆ.

Genus SYRNIUM, Savigny.

S. Indrani, Gray's *Ill. Gen. Birds*, pl. 14).

SYN. Strix indrani, Sykes (vide J. A. S. XVI. 463).
Ulula ? et Bulaca newarensis, Hodgson.
B. monticola, Jerdon.

Newar, Nepal (H). Inhabits India generally, mountainous parts ; Ceylon : Malayan peninsula.

S. sinense (Hardw. *Ill. Ind. Zool.)*

SYN. Strix sinensis, (?), Latham.
Str. orientalis, Shaw.

Inhabits most parts of India, to foot of Himalaya : not Lower Bengal (at least below the tideway of the rivers). China ?

S. nivicolum, Hodgson (J. A. S. XIV. 185 ; XV. 9 ; XVI. 464). Remark. This is probably a Himalayan variety of S. aluco. Gould, distinguished by its generally larger size, darker colour, and the usually greater development of the transverse markings of the plumage. Inhabits Himalaya.

Subfam. STRIGINÆ.

Genus PHODILUS, Is. Geoffroy.

Ph. badius (Horsfield's *Zool. Res. in Java.* pl.).

SYN. Strix badia. Horsfield.

Wowo-wiwi, or *Kalong wiwi*, Jav. Inhabits Nepal ; Sikim ; Assam ; Arracan ; Malayan peninsula and archipelago.

Genus STRIX, L. (as restricted).

Str. flammea, L.

SYN. S. javanica apud Sykes and Jerdon.

Lakkhi or *Jakkhi Pencha*, *B.* : *Kareya*, or *Kurail*, H., vulgo *Booree Chooree*, Jerdon. *Oilei*, Bhagulpore. Inhabits Europe and Asia ; Africa ? N. America ? vicinity of Calcutta.

Genus GLAUX, Blyth.

Gl. javanica (?), Jerdon's *Ill. Ind. Orn.* pl. 30).

SYN. Strix javanica de Wormb, apud Latham (vide J. A. S. XIV. 186).
Str. candida, Tickell, J. A. S. II. 572.
S. Longimembris, Jerdon.

Inhabits plains of India : very rare on the mud-soil of Lower Bengal, within the reach of the tide. A specimen from S. India was presented by T. C. Jerdon, Esq. (1842).

Order I. INSESSORES. Sub-Order. PICÆ. L. modified). Tribe. SYNDACTYLI, Cu. modified).

Fam. BUCEROTIDÆ.

Sub. fam. BUCEROTINÆ.

Genus BUCEROS, L. *(Dhan'es* Beng., generic).

B. Cavatus, Shaw. *(As. Res.* XVIII, pt. II. pl. Gould's *Century*, pl.).

SYN. B. bicornis (?). Linn.
B. homrai, Hodgson.

Ban Rao Jungle King), Masuri : *Homrai*, Nepal : *Young-yeng*, Arracan : *Juggang Papan*, Sumatra : *Concan*, Malay. Inhabits extensive hill forests of all India ; Assam ; Arracan ; Tenasserim ; Malayan peninsula ; Sumatra ; Philippines ?

B. rhinoceros L. (Pl. Enl. 934*).*

SYN. B. niger. Shaw nec (Vieillot). } Young.
B. sylvestris, Vieillot. } Young.
B. diadematus, Drapiez. } Young.

Juggang Danto, Malay : *Rangkok*, or *Jongrang*, Java. Inhabits Malayan peninsula and Archipelago.

B. hydrocorax, L. *(Dict. Class.' Hist. Nat., Atlas*, pl. 23, fig. 2.)

SYN. B. bicornis, var., Shaw.
B. cristatus, Vieillot.
B. platyrhynchos, Pearson, J. A. S. X. 652.

Inhabits Moluccas.

B. pica, Scopoli, (*Pl. Enl.* 813).

SYN. B. malabaricus, var. B. Latham.
B. monoceros, and probably B. violaceus, Shaw.

Bœgma Dunnase, White, *As. Res.* IV. 119, Inhabits Indian peninsula; Ceylon? Goomsoor, Kuttack.

B. affinis, Hutton, J. A. S. XVIII.

Inhabits Deyra Doon.

B. albirostris, Shaw, Vieillot, (Lev. *Ois. Rar.*, pl. 14).

SYN. B. malabaricus, Latham.
B. lencogaster, Blyth. J. A. S. X. 922 (the young).

Auk-khyeng, Arrakan. Inhabits Midnapore district; Rajmahal; Monghyr; Nepal; Assam; Sylhet; Arakan; Tenasserim provinces: never in Malabar, or S. India: replaced by *B. affinis* in the Deyra Doon, which merely differs in being constantly of the larger size of *B. pica.*

B. intermedius, Blyth, (J. A. S. XVI. 994.)

SYN. B. violacens of Wagler, apud Lord A. Hay Madr. Journ. XIII. 148.
probably B. malabaricus of Sumatra, apud Raffles.

Inhabits Malayan peninsula (in latitude of Penang); Sumatra?

B. malayanus, Raffles, (*Pl. Col.*)

SYN. B. anthracinus, Temminck.
B. bicolor, Eyton.
B. Elliotti, A. Hay (vide J. A. S. XVI. 995).
B. albirostris of Java (?), apud Horsfield.
Kiki (?), Malay: Angka Angka (?), Sum; Klinglingan (?), Java.

Inhabits Malayan peninsula; Sumatra; Java? Moluccas?

B. nigrirostris, Blyth (J. A. S. XVI. 995).

SYN. B. malayanus apud Lord A. Hay, Madr. Journ. XIII. 151.

Inhabits Malayan peninsula.

B birostris, Scopoli, (Lev. *Ois. Rar.*, pl. 15.)

SYN. B. gingimianus, Shaw.

Putteal Dunnase, White, *As. Res.* IV. 121. Inhabits India generally (nec Assam): never on the eastern side of the Bay of Bengal.

B. gingalensis, Shaw (Lev. *Ois. Rar.*, pl. 23).

SYN. B. bengalensis, Gray.

Inhabits Malabar; Ceylon: never in Bengal.

B. galeritus, Temminck (*Pl. Col.*).

SYN. B. carinatus, Blyth, J. A. S. XV. 187.

Mati Sakawan, Malay. Inhabits Malayan peninsula.

B. comatus, Raffles.

SYN. B. lugubris, Begbie, vide Ann. M. N. H. 1846, p. 405.

Inhabits Malayan peninsula; Sumatra.

B. exarrhatus, Reinwardt (*Pl. Col.* 211).

Inhabits Moluccas and Java.

B. panayensis, Scopoli, (*Pl. Enl.* 780, 781).

Inhabits Moluccas; Philippines.

B. nipalensis, Hodgson (*As. Res.* XVIII. pt. 1, 2 figs. of female.)

Inhabits S. E. Himalaya; hill ranges of Assam, and Munipur.

B. pasuran, Raffles.

SYN. B. ruficollis apud Blyth, J. A. S. XII. 176.

Inhabits Cherra Punji; Arracan; Tenasserim provinces; Malayan peninsula; Sumatra.

B. plicatus, Latham, Shaw (nec Drapiez).

SYN. B. obscurus, Gmelin.
B. subruficollis, Blyth, J. A. S. XII. 177.

Inhabits Arracan; Tenasserim provinces.

B. galeatus, L. (*Pl. Enl.* 933).

Toko, and *Burong Gading*, Sum.: *Tibbang Mantooa*, Malay. Inhabits Malayan peninsula and archipelago.

Sub-fam. IRRISORINÆ.

Genus IRRISOR, Lesson.

I. erythrorhynchos.

SYN. Upupa erythrorhynchos, Latham.

Inhabits S. Africa.

Fam. UPUPIDÆ.

Genus UPUPA, L.

U. epops, L. (*Pl. Enl.* 52).

Hud-hud, Hind. Toung-bee-tsot, Arrakan.

Inhabits Europe; Asia; N. Africa. Common in Bengal; also Nepal: generally replaced in S. India, and Ceylon, as likewise in the Deyra Doon, by the next; though occurring in the Nilgiris.

U. senegalensis (?), Swainson (vide J. A. S. XIV. 189).

SYN. U. minor apud Jerdon.

Inhabits S. India; Ceylon; Deyra Doon; W. Africa?

Fam. HALCYONIDÆ.

Genus DACELO, Leach.

D. monacha, ——— ?

SYN. D. concreta, juv., Temminck.

Inhabits Celebes? Moluccas

D. pulchella, Horsfield (*Pl. Col.* 277; *Zo Res. in Java*, pl.)

Tengki-watu. Jav. Inhabits Mergui; M layan peninsula and archipelago.

Genus HALCYON, Swainson.

Match-ranga (generic), or *Matchi-mar* (Masuri), H.: *Pin-ngyeng* (generic), Arracan, with the prefix of *Tsheng* for the larger species and *Glai* for the smaller: *Kaka*, Malayan.

H. leucocephalus, L.

Syn. Alcedo capensis, L. (*Pl. Col.* 599).

Bang Kaka, Sumatra: *Tengke Buto*, Java. Malacca.

H. gurial, Pearson (J. A. S. X. 633).

Syn. H. brunniceps, Jerdon, Madr. Journ. XIII. 143.
H. leucocephalus apud Horsfield, P. Z. S. 1839, p. 156.

Gurial, Beng.: *Malai Poymah*, Malabar (i. e. "Jungle King-fisher"), Jerdon. Inhabits India generally.

H. amauropterus, Pearson (J. A. S. X. 635).

Inhabits S. Bengal; Arracan; Tenasserim.

H. smyrnensis (*Pl. Col.* 232, 894).

Syn. Alcedo smyrnensis, L.
Ispida bengalensis minor, Brisson.

Sada-buk; *Match-ranga*, Beng.: *Kilkila*, H. Jerdon: *Pilly kudua* (*loco*, or 'large'), Cingh. Inhabits India generally; Assam; Arracan; Tenasserim; Malayan peninsula; Ceylon; Syria.

H. gularis, (*Pl. Col.* 135).

Syn. Alcedo gularis, Kuhl.
A. melanopterus, Temminck.
H. ruficollis, Swainson.
H. smyrnensis, var. albogularis, Blyth, J. A. S. XII. 998.

Tengke-arang, Java. Inhabits Java; Philippines: Madagascar (?) Vide *Ann. M. N. H.*, *n. s.*, 1848.

H. coromander.

Syn. Alcedo coromander, Latham.
H. coromandelicus, Vigors.

Tengke-sumbo, Java. Inhabits Nepal; Sikim; Bengal Sundarbans; Tenasserim; Coromandel?

H. atricapillus (*Pl. Col.* 613).

Syn. Alcedo atricapilla, Latham.
A. albiventris, Scopoli (inapplicable).

Udang, Malay. Inhabits eastern side of the Bay of Bengal; rare on the western: Bengal Sundarbans; Malayan peninsula and Archipelago; China.

Genus TODIRHAMPHUS, Lesson.

T. varius.

Syn. Halcyon varia, Eyton, P. Z. S. 1839, p. 101.
Probably H. chlorocephalus (as distinguished from H. sacer), in Zool. Appendix to Lady Raffles's Memoirs of Sir St. Raffles, p. 655.

Tengke-cheger (?), Java. Inhabits Malayan peninsula; Sumatra; Java?

T. collaris.

Syn. Alcedo collaris, Scopoli.
A. chlorocephala, Gmelin.
Malayan A. sacer (v. sanctus), Auct.
Var. T. occipitalis, Blyth, J. A. S. XV. 23, 51.

Tengke, Java. Inhabits Bay of Bengal, much more common on the eastern side; Tenasserim; Bengal Sundarbans; Sumatra; Java. Nicobar variety with broad white or rufous supercilium (*T. occipitalis*, Blyth). Ordinary variety, from the Nicobars, particularly bright.

Genus CERYLE, Boie.

C. guttata (Gould's 'Century,' pl. 5).

Syn. Alcedo guttatus, Vigors.
A. lugubris, Temminck.

Inhabits Himalaya.

C. rudis (Edwards, pl. 9).

Syn. Alcedo rudis, L.
Ispida bitorquata, Swainson.

Phatka Match-ranga, B. Inhabits Asia and Africa; rare in the S. E. of Europe. Specimens from S. Africa, from Lower Bengal. Ordinary Asiatic variety (*C. varia*, Strickland) from the neighbourhood of Calcutta. Specimen from Greece.

Genus ALCEDO, Linn.

A. grandis, Blyth (J. A. S. XIV. 190).

Inhabits Sikkim; Assam?

A. nigricans, Blyth (J. A. S. XVI. 1180).

Syn? A. euryzona, Temminck, Text de Pl. Col., and Kaup, Verhandlungen, &c., (1848), p. 77.

Inhabits Malacca.

A. ispida L. (*Pl. Enl.* 77).

Inhabits Europe; W. Asia: Afghanistan?

A. bengalensis, Gm. (Edwards, pl. 11).

Match-ranga, B.: *Chota Kilkila*, H. (Jerdon). *Raja Whodan* (generic for all the small species), Malay: *Mal Pilli hudua* (*pinchi*, or 'small'), Cingh. Inhabits India generally; Burmah; Malacca; China.

A. moluccensis, Blyth (J. A. S. XV. 11).

Inhabits Celebes; Moluccas.

A. meningting, Horsfield.

Syn. A. asiatica, Swainson, (Swainson's Zool. Ill., 1st series, pl. 50).

Binti Sum: *Meningting*, Jav. Inhabits Tenasserim provinces; Malayan peninsula and Archipelago.

A. biru, Horsfield (*Zool. Res. in Java*, pl.; Tem. *Pl. Col.* 239, f. 1).

Meningting Watu, or *Burong-Biru*, Jav. Inhabits Java.

Genus CEYX, Lacepede.

C. erythaca (Jerdon's *Ill. Ind. Orn.*, pl. 25).

SYN. Alcedo erythaca et tridactyla, Pallas.
A. purpurea, Gmelin.
A. rubra, Boddaërt.
C. microsoma, Burton.

Dein-ngyeen, Arracan ; *Raja Whodan*, Malay. Inhabits India generally, but rare ; Lower Bengal : more common on the eastern side of the Bay, southward to the Straits of Malacca.

C. rufidorsa, Strickland (J. and S., *Ill. Orn.* pl. 552).

SYN. C. tridactyla apud Jardine and Selby.
A. madagascariensis, L., apud, Latham.
A. purpurea, var., Shaw.

Binti Abang, Sum. : *Chuchak-urang*, Jav. Inhabits Malayan peninsula ; Java : never in India.

Fam. CORACIDÆ.

Genus CORACIAS, L.

C. pileata, Reinwardt ?

SYN. ? C. Temminckii, (Vieillot), (Vail. Ois. de Parad., t. 6).
C. papuensis, Quoy and Gaymard (Voy. de l' Astrolabe, Ois. t. 16).

Inhabits Celebes ; Moluccas.

C. garrula, L. (*Pl. Enl.* 486).

Inhabits Europe ; N. Africa ; W. Asia ; N. W. India ; Kashmir ; Mooltan ; Afghanistan.

C. indica Linn. (*Pl. Enl.* 285 ; Edwards, pl. 326).

SYN. C. bengalensis, L.
Garrulus nævius, Vieillot.

Subzuk, and *Nil-kant*, H. (from the colours) : *Tas*, *Mahr.* (from its call) ; *Kavolowa*, Cingh. Inhabits India generally ; replaced eastward by *C. affinis*.

C. affinis, McClelland (Gray's 'Illustrated Genera of Birds,' pl.).

Nghet-kha, Arracan. Inhabits Assam ; Arracan ; Tenasserim provinces.

Genus EURYSTOMUS, Vieillot.

Eu. orientalis (*Pl. Enl.* 619).

SYN. Coracias orientalis, Linn.
Eu. fascicollis et cyanicollis, Vieillot.

Tiong Lampie, and *Tiong Batu*, Malayan Inhabits India generally, China, and Malay countries ; Ceylon.

Eu. pacificus (Gould's B. A. Vol. II, pl. 17).

SYN. Coracias pacificus, Latham.
Eu. australis, Swainson.
Eu. orientalis apud Vigors and Horsfield. Lin. Tr. XV, 202.

Inhabits Australia.

Fam. MEROPIDÆ.

Genus ALCEMEROPS, Is. Geoffroy.

Alc. Athertonii (Jardine and Selby, *Ill. Orn.* pl. 58).

SYN. Merops Athertonii, J. and S.
Bucia nipalensis, Hodgson, J. A. S. V. 360.
Merops cyanogularis, Jerdon.
Nyctiornis amherstiana, Royle.

Pya-too-nghet, Arracan. Inhabits Deyra Doon ; Nepal ; Assam ; Arracan ; Tenasserim ; S. India.

A. amicta (Swainson's *Zool. Ill.*, 2nd series, pl. 56 ; *Pl. Col.* 310).

SYN. Merops amictus, Temminck.

Inhabits Tenasserim Provinces ; Malayan peninsula.

Genus MEROPS, L.

M. apiaster, L. (*Pl. Enl.* 938).

SYN. M. galilæus, Hasselquist.
M. schæghagha, Forster.
M. chrysocephalus (?), Latham.

Inhabits Europe ; W. Asia ; Afghanistan.

M. persicus, Pallas. (Sav., Descript. *de* l'Egypt, tom. 1, pl. 4, f. 3).

SYN. M. ægyptius, Savigny.

Inhabits N. Africa ; W. Asia ; Sind.

M. philippinus, L. (*Pl. Enl.* 215).

SYN. M. Leschenaultii, Levaillant.
M. javanicus, Horsfield.

Barai Barai, Malay. Inhabits India generally ; Malay countries ; Ceylon.

M. sumatranus, Raffles. (Griffith's *An. Kingdom*, VII. p. 422, pl.). Inhabits Malay countries.

M. erythrocephalus, Latham. (Swainson's *Zool. Ill.*, 1st series, pl. 8).

SYN. M. quinticolor, Vieillot.
M. urica, Horsfield.

Inhabits India generally (nec Lower Bengal) ; Malay countries ; Ceylon.

M. viridis, L. (Edwards, pl. 183 ; *Pl. Enl.* 740).

SYN. M. Lamarckii, Cuv.
M. Orientalis, Latham.
M. Indicus, Jerdon.
Var. M. coromandus, Latham.

Bans-pati. ('Bamboo leaf'), *H.* ; *Hurial, and Patringa*, H. (Jerdon). *Mo-na-gyee*, Arracan. Inhabits India generally ; Arracan ; Ceylon.

Tribe ZYGODACTYLI. Division I. (Devoid of cæca). Sub-division I. (Climbers).

Fam. PICIDÆ.

Lukkurphor, Hind. : *Kat-tokra*, Beng, : *Katbarya*, Masuri : *Theet-touk*, Burm. : *Glato*, Malay : *Tukki*, Sum. ; *Peatuk*, Jav. : *Pilli hudua* (same name as for King-fishers), Cingh.

Subfam. CAMPEPHILENÆ.

Genus CAMPEPHILUS, G. R. Gray.

C. validus (*Pl. Col.* 378, 402).

SYN. Picus validus, Reinwardt.

Inhabits Western Malasia. Malacca.

Genus HEMICERCUS, Swainson.

H. canente (Lesson's *Cent. Zool.* pl. 73 ; Jerdon's *Ill. Ind. Orn.* pl. 40).

SYN. Picus canente, Lesson.
H. cordatus, Jerdon (rather smaller race).

Inhabits Burmese countries (Arracan, Tenasserim, Pegu) : also S. India.

H. concretus. (*Pl. Col.* 90, f. 1, 2).

SYN. Picus concretus, Reinwardt.

Inhabits W. Malasia ; Malayan peninsula.

Genus HEMILOPHUS, Swainson.

H. pulverulentus (*Pl. Col.* 389).

SYN. Picus pulverulentus, Tem.
P. javensis, fœm., apud, Horsfield, *Linn. Tr.* XIII, 76.

Inhabits Burmese and Malay countries.

H. Hodgsonii, Jerdon (*Ill. Ind. Orn.* pl. 5).

Inhabits Neilgiris ; Malabar.

H. javensis.

SYN. Picus javensis, Horsfield.
P. leucogaster, Reinwardt.
'Great Malayan Woodpecker,' J. A. S. VI. 952.

Peatak cayam, Java. Inhabits Malay countries ; Tenasserim.

H. funebris.

SYN. Picus funebris, Valenciennes.
P. modestus, Vigors, P. Z. S.

Inhabits Philippines.

Genus CHRYSOCOLAPTES, Blyth.

Chr. sultaneus.

SYN. Picus sultaneus, Hodgson, J. A. S. VI. 105.
P. strictus apud, Jerdon, Catal.
P. strenus, Gould, mentioned P. Z. S. 1839, p. 165.

Inhabits India generally, chiefly the hill forests, rare in the plains : also Assam, Sylhet, Arracan, Tenasserim, and Malayan peninsula southward as far as Malacca.

Chr. goensis (*Pl. Enl.* 696).

SYN. Picus goensis, Gmelin.
Dendrocopus Elliotti, Jerdon, Catal.
Chr. melanotus, Blyth. J. A. S. XII. 1005.

Inhabits Indian peninsula : rare in most parts ; common in a few localities.

Chr. hæmatribon.

SYN. Picus hæmatribon, Wagler.
P. spilolophus, Vigors, P. Z. S. 1830, p. 98 (the female).

Inhabits Philippines.

Genus BRACHYPTERNUS, Strickland.

Br. ceylonus (*N. nat. Forsch.*, 13, *pl.* 4).

SYN. Picus Ceylonus, Forster.
P. neglectus, Wagler.
P. erythronotus (?), et P. rubescens (?) Vieillot.

Inhabits Ceylon, where very common.

Br. aurantius (Edwards, pl. 182 ; *Pl. Enl.* 695).

SYN. Picus aurauntius, L.
P. bengalensis, Gmelin (nec Horsfield, Linn. Tr. XIII. 176).
P. nuchalis, Wagler.
P. Tibetanus, Natterer.
P. psarodes, Lichtenstein.
P. hemipodius, Swainson.
Malacolophus ? melanochrysos, Hodgson, J. A. S. VI. 109.
Br. micropus, Blyth, J. A. S. XIV. 194.
Var. P. chrysonotus, Lesson.

Inhabits India generally ; Ceylon.

Genus TIGA, Kaup.

T. Shorei, (Gould's 'Century,' pl. 49).

SYN. Picus Shorei, Vigors, P. Z. S. 1831, p. 175 ; J. A. S. XIV. 193.

Inhabits Himalaya, and hilly regions of S. India.

T. intermedia, Blyth, J. A. S. XIV. 193).

Inhabits Nepal ; Assam ; Sylhet ; Arracan ; Tenasserim ; Penang ; S. India.

T. tridactyla (J. A. S. XIV. 193).

SYN. Chrysonotus tridactylus, Swainson.
Picus tiga, Horsfield.

Tukki Besor of Malays, Sumatra. Inhabits Malay countries.

T. Rafflesii. (J. A. S. XV. 16).

SYN. Picus Rafflesii, Vigors.
T. labarum, Lesson.
T. amictus, Gray.

Inhabits Malayan peninsula ; Sumatra.

Subfam. GECININÆ.

Genus GECINUS, Boie.

G. squamatus (Gould's 'Century' pl. 48).

SYN. Picus squamatus, Vigors.
P. dimidiatus apud Hardwicke and Gray (nec Temminck).

Inhabits Himalaya.

G. striolatus, Blyth, J. A. S. XII. 1000.

SYN. G. squamatus apud, Jerdon, Catal.

Inhabits Himalaya, and hilly regions of S. India : occurs, though rare on the plains.

G. dimidiatus.

Syn. Picus dimidiatus, Temminck.
P. Vitatus, Vieillot.
P. affinis, Raffles, apud Vigors, in Zool. App. to Lady Raffles's Memoir of Sir St. Raffles, p. 668.
G. viridanus, Blyth, J. A. S. XII. 1000.

Inhabits Arracan; Tenasserim provinces where common. Java.

G. occipitalis (Gould's 'Century,' pl. 47).

Syn. Picus occipitalis, Vigors.
P. barbatus, Gray.
P. affinis (?), Raffles.

Inhabits Himalaya; Assam; Tippera; Tenasserim provinces; Sumatra?

Division III. (with crested nape.)

G. flavinucha.

Syn. Picus flavinucha, Gould, P. Z. S. 1833, p. 120.
Dryotomus flavigula, Hodgson, J. A. S. V. 106.

Inhabits S. E. Himalaya; Assam; Arracan.

G. chloropus (Hardw. *Ill. Ind. Zool*).

Syn. Picus chloropus et chlorolophos, Vieillot.
P. nipalensis, Gray.
P. xanthoderus, Malherbe.

Inhabits Himalaya chiefly; N. India: rare on the plains.

G. chlorophanes (J. A. S. XV. 16).

Syn. Picus chlorophanes, Vieillot.
P. chlorigaster, Jerdon, Madr. Journ. XIII, 139).
P. mentalis apud Jerdon, Catal.

Inhabits S. India; Ceylon.

G. malaccensis (J. A. S. XIV. 192).

Syn. Picus malaccensis, Latham.
Le Pic de Malacca, Sonnerat.

Inhabits Malayan peninsula.

G. mentalis, (*Pl. Col.* 384).

Syn. Picus mentalis, Temminck.

Inhabits Tenasserim provinces: Malayan peninsula; Sumatra.

G. puniceus (*Pl. Col.* 423).

Syn. Picus puniceus, Horsfield, Linn. Tr. XIII, 661.
Chrysonotus miniatus apud Eyton (?) P. Z. S. 1839, p. 106.

Tukki Bajukarap or *Belatu*, Malayan (Raffles). Inhabits Tenasserim; Malayan peninsula; Sumatra; Java.

Division IV.

G. pyrrhotis.

Syn. Picus pyrrhotis, Hodgson, J. A. S. VI. 108.

Inhabits S. E. Himalaya.

G. rubiginosus.

Syn. Picus rubiginosus, Eyton (nec Swainson, B. W. Afr. II. p. 150).
P. melanogaster, A. Hay, Madr. Journ. XIII. 153.

Inhabits Malayan peninsula.

Genus GECINULUS, Blyth.

G. grantia (J. A. S. XIV. 192).

Syn. Picus grantia, M'Clelland, P. Z. S. 1839, p. 165.

Inhabits Sikkim; Assam.

Genus MEIGLYPTES, Swainson.

M. pectoralis (Pl. Col.)

Syn. Picus pectoralis, Latham.
P. marginatus, Reinwardt.
P. tukki, Lesson.
P. luridus, Nitzsch.
P. fasciolatus Lichtenstein.
Hemicercus brunneus, Eyton.

Inhabits Malayan peninsula.

M. tristis (Pl. Col. 197, f. 1).

Syn. Picus tristis, Horsfield.
P. poicilophus, Temminck.

Glato Bawan, Malacca: *Tukhi Boreh* of Malays, Sumatra: *Platuk-watu*, Java. Inhabits Tenasserim; Malayan peninsula; Sumatra; Java.

M. jugularis, Blyth, J. A. S. XIV. 195.

Inhabits Arracan; Tenasserim.

Genus MICROPTERNUS, Blyth.

M. phaioceps, Blyth, J. A. S. XIV. 195.

Syn. P. rufonotus, Malherbe.
P. rufus, Latham, apud Gray (nec Gmelin).
Rufous Indian Woodpecker, Latham.

Inhabits Bengal; Nepal; Assam; Sylhet; Arracan; Tenasserim provinces.

M. gularis, Jerdon, *Madr. Journ.* XIII. 139. Inhabits Indian peninsula.

Syn. Slight variety of preceding species?

M. badius.

Syn. Picus badius, Raffles.
P. brachyurus, Vieillot.

Tukki Kalabu of Malays (Raffles). Inhabits Malayan peninsula; Sumatra.

Subfam. PICINÆ.

Genus DRYOCOPUS, Boie.

Dr. martius (*Pl. Enl.* 596).

Syn. Picus martius, L.

Inhabits Europe; W. Asia.

Genus PICUS, L. (as restricted).

P. leuconotus, Bechstein (Naum. 35, t. 65).

Syn. P. cirris, Pallas apud Gray.

Inhabits N. Europe.

P. himalayanus, Jardine and Selby (*Ill. Orn.* pl. 116).

Syn. P. assimilis, Natterer.

Inhabits N. W. Himalaya.

P. darjellensis, Blyth, J. A. S. XIV. 196.

Syn. P. majoroides, Hodgson.

Inhabits S E. Himalaya.

P. mahrattensis, Latham (Gould's 'Century,' pl. 51).

Syn. P. hœmosomus, Wagler.

Inhabits India generally (but never on the alluvium of Lower Bengal).

P. brunnifrons, Vigors (Gould's 'Century,' pl. 52).

Syn. P. aurifrons, Vigors.

Inhabits Himalaya.

P. Macei, Vieillot (Hardw. *Ill. Ind. Zool*).

Syn. P. medius from India, apud, Latham.

Inhabits Bengal ; Nepal ; Assam ; Tippera ; Malayan peninsula.

P. hyperythrus, Vigors (Gould's 'Century,' pl. 50). Inhabits Himalaya.

P. cathpharius, Hodgson, J. A. S. XII. 1006. Inhabits S. E. Himalaya.

P. rubricatus, Blyth, (described as fine old male of No. 302 in J. A. S. XIV. 197). Inhabits Sikim.

P. pygmæus, Vigors, P. Z. S. 1831, p. 44.

Syn. P. trisulensis, Lichtenstein.

Inhabits N. W, Himalaya ; Nepal.

P. moluccensis, Gmelin, (*Pl. Enl.* pl. 748, f. 2).

Syn. P. bicolor, Gmelin, apud, Gray,
P. sizuki ? , Temminck.
Tripsursus aur itus, Eyton.

Tukky lilit, Malayan ; Sumatra. Inhabits Malayan peninsula ; Java.

P. canicapillus, Blyth, J. A. S. XIV. 197.

Syn. Qu. Permanent variety of P. moluccensis

Inhabits Arakan ; Tenasserim Provinces.

P. variegatus, Wagler (nec Latham).

Syn. P moluccensis, var. B, and Brown Woodpecker, Latham.
P. moluccensis, Hardw. and Gray Ill. Ind. Zool.
P. Hardwickii, Jerdon, Madr. Journ. XIII. 188.
Cawnporo Woodpecker, Latham.

Inhabits India, southward of the Himalaya.

P. gymnopthalmos, Blyth, J. A. S. XVIII. Inhabits Ceylon.

P. validirostris, Blyth (described and referred to *P. nanus*, Vigors, J. A. S. XIV. 197).

Inhabits

Subfam. PICUMNINÆ.

Genus PICUMNUS, Temminck.

P. innominatus, Burton, P. Z. S. 1835, p. 154.

Syn. Vivia nipalensis, Hodgson, J. A. S. VI. 107.

Wee-Wee. Nepal. Inhabits Himalaya.

Genus SASIA, Hodgson.

S. abnormis (*Pl. Col.* 371, f. 3).

Syn. Picumnus abnormis, Temminck.

Inhabits Malay countries.

S. ochracea, Hodgson, J. A. S. V. 778. Inhabits Nepal ; Sikkim ; Assam ; Sylhet ; Arracan.

Subfam. YUNCINÆ.

Genus YUNX, Lin.

Y. torquilla, L. (*Pl. Enl.* 698). Inhabits Europe and Asia : common in many parts of India, Calcutta, Ferozepore.

Subfam. INDICATORINÆ.

Genus INDICATOR, Vieillot.

I. xanthonotus, Blyth, J. A. S. XI. 166, XIV. 198 (Jerdon's *Ill. Ind. Orn. pl.*—) Inhabits Sikkim.

Sub-division II. (Perchers).

Fam. MEGALAIMIDÆ.

Genus MEGALAIMA, G. R. Gray.

M. virens (Gould's 'Century,' pl. 46).

Syn. B. grandis, Gmelin.
Bucco virens, Boddaert.

Inhabits Himalaya; Assam ; Cherra Punji ; China.

M. lineata (Tem. *Pl. Col.* 522).

Syn. B. lineatus, Vieillot.
B. corvinus, Tem.

Pho goung, Arracan. Inhabits Deyra Doon ; Nepal; Assam ; Sylhet ; Tippera ; Arracan ; Tenasserim provinces ; Sumatra (apud Vieillot).

M. caniceps (Vail. *Barb.* t. 38, apud Gray).

Syn. B. lineatus, apud Tickell. J. A. S. II. 579.
Bucco caniceps, Franklin.

Burra Bassunta, Central India : *Kootomra*, H. : *Kootoorya*, Mahr. : *Kootur-kakee*, Can. : *Kootooreal*, Cinghalese. Inhabits Indian peninsula, spreading northward to the Deyra Doon common in Mednapur jungles, and in Central India : replaced by a smaller and darker race in Ceylon. Specimens from the Nilgiris and specimens of rather smaller and darker-coloured race from Ceylon (*B. zeylanicus* ? (Linn.)

M. viridis (Jerdon's *Ill. Ind. Orn.*, pl.

Syn. Bucco viridis, L.

Inhabits Nilgiris ; Malabar.

M. flavifrons (Vail. *Barb.* t. 55).

SYN. Bucco flavifrons, Cuv.
B. aurifrons, Temminck.

Inhabits Ceylon.

M. chrysopogon, (*Pl. Col.* 285),

SYN. Bucco chrysopogon, Temminck.

Inhabits Malayan peninsula ; Sumatra.

M. versicolor (*Pl. Col.* 309).

SYN. Bucco versicolor, Raffles.
B. Rafflesii, Lesson.

Takoor, Malacca : *Takoo*, Sumatra (generic). Inhabits Malayan peninsula ; Sumatra.

M. quadricolor.

SYN. Bucco quadricolor, Eyton, P. Z. S. 1839, p. 105.
B. malaccensis, ?, Hartlaub, Rev. Zool. 1842, p. 337.

Inhabits Malayan peninsula.

M. armillaris (*Pl. Col.* 89, f. 1).

Inhabits Malayan peninsula ; Java ?

M. asiatica (Vieillot, *Gal. des Ois.*, t. 35).

SYN. Trogon asiaticus, Latham.
Capito cyanocollis, Vieillot.
Bucco cyanops, Cuv.
B. cæruleus, Dumeril.

Burra Bassunt-bairi, Bengal : *Koop-khaloung*, Arracan. Inhabits Bengal ; sub-Himalayan region to Deyra Doon, and valleys of the lower hills ; Assam ; Sylhet ; Tipperah : rare in Arracan.

M. Franklinii.

SYN. Bucco Franklinii, Blyth, J. A. S. XI. 167.

Inhabits S. E. Himalaya ; Cherra Punji, Assam ?

M. philippensis (Tem. *Pl. Col.* 331).

SYN. Bucco philippensis, Brisson.
B. flavigula, Boddaert.
B. indicus, Latham.
B. flavicollis, Vieillot.
B. rubricollis, Cuv.
B. luteus, Lesson (albino variety, Jerdon.

Chota Bassunt bairi, Bengal ; *Kut-khora* and *Tambayut* (' Coppersmith'), H. : *Chanda*, Sumatra : *Engku*, Java. Inhabits India generally ; nec Himalaya : Tippera ; Chittagong ; Ramree (Arracan) ; Tenasserim provinces ; Penang ; Sumatra ; Java ; Philippines ; Ceylon.

M. rubricapilla (Brown's *Zoology*, pl. 14).

SYN. Bucco rubricapillus, Gmelin.

Inhabits Ceylon.

M. trimaculata (Tem. *Pl. Col.* 536, f. 1).

SYN. Bucco trimaculatus, Gray.
B. frontalis, Temminck.
B. Duvaucelei, Lesson,
B. australis apud, Raffles nec Horsfield.
B. cyanotis, Blyth, J.A. S. XVI. 465, Arracan, variety.

Nget-pa-din, Arracan. Inhabits Malayan peninsula ; Sumatra : with distinct variety in Arracan.

Genus MEGALORHYNCHUS, Eyton.

M. Hayii, Gray (apud G. R. Gray).

SYN. Micropogon fuliginosus, Temminck.
Calorhamphus sanguinolentus, Lesson.
Megalorhynchus spinosus, Eyton.

Ampis, Sumatra : *Unkot Besea*, Penang. Inhabits Malayan peninsula ; Sumatra.

Fam. CUCULIDÆ.

Subfam. CUCULINÆ.

Genus CUCULUS, L.

C. sparverioides, Vigors (Gould's 'Century,' pl. 53).

SYN. Ferruginous-necked Cuckoo (?), Latham.

Inhabits Himalaya ; Nilgiris ; Malayan peninsula.

C. varius, Vahl (Hardw. *Ill. Ind. Zool.*)

SYN. C. fugax, Horsfield.
C. Lathami, Gray.
C. tenuirostris, Lesson.
C. ejulans, Sundevall.
C. nisicolor, Hodgson, variety ?
Bhrou and Bychan Cuckoo, and the young Sokagu, Cuckoo, Latham.

Chok-gallo, and *Popiya*, Beng. : *Kupuk*, or *Upuk*, H. (Jerdon). *Kutti pitta* (' Sword bird'), Telugu. *Zuk-kat* (Custom-house bird), Dukhun. Inhabits India generally and Malay countries.

C. striatus, Drapiez.

SYN. C. micropterus, Gould.
C. optatus, Gould, 'Intr. to Birds of Australia,' (Doubtful.)
C. affinis, A. Hay, J. A. S. XV. 18 (large variety).
C. flaviventris apud, Strickland (?), J. A. S. XIII. 390.

Bou-kotako, Beng. : *Kyphul-pucka* of hill-men, Masuri (Hutton). Inhabits India generally, and Malay countries : Australia ? Rare in S. India.

C. canorus, Linn. (*Pl. Enl.* 811).

SYN. C. borealis, Pallas.
C. hepaticus, Sparrman, var. ?

P'hu-p'hu, Deyra Doon. Inhabits Europe, Asia, and Africa, Darjiling, Calcutta.

C. himalayanus, Vigors (nec apud, Gould's Century,' pl. 54).

SYN. S. saturatus, Hodgson, J. A. S. XII. 942, XV. 18.

Inhabits Himalaya generally : Tenasserim provinces.

C. poliocephalus, Latham (Gould's ' Century' pl. 54).

SYN. C. himalayanus apud, Gould, Cent.

Inhabits Himalaya : S. India rarely.

C. tenuirostris, Gray (Hardw. *Ill. Ind. Zool*).

SYN. C. flavus apud, Lesson, et Jerdon, Madr. Journ. XI, 220 : C. flavus, Ind. Var. ?
C. lineatus (?), Lesson, Traité.
C. niger apud, Blyth, J. A. S. XI. 908.

Pousya, Mahr. Inhabits India generally.

C. merulinus, Scopoli.

SYN. C. flavus, Gmelin.
C. pyrogaster, Drapiez.

Gedasse, Java. Inhabits Malay countries.

C. Sonnerati, Latham.

SYN. C. rufovittatus, Drapiez.
C. pravatus, Horsfield.

Inhabits S. India and Malay countries.

Sub-genus SURNICULUS, Lesson.

S. dicruroides.

SYN. Pseudornis dicruroides, Hodgson, J. A. S. VIII, 136.
S. lugubris, Ind. Var. ?

Inhabits India : Tenasserim provinces : Ceylon.

S. lugubris.

SYN. Cuculus lugubris, Horsfield.
C. albopunctatus, Drapiez.

Awon-Awon, Java. Inhabits Malayan peninsula and archipelago.

Subgenus CHRYSOCOCCYX, Boie.

Chr. xanthorhynchos (Horsfield's *Zool. Res. in Java*, pl.)

SYN. Cuculus xanthorhynchos, Horsfield.
Lampromorpha amethystina, Vigors, P. Z. S. 1831, p. 98.

Inhabits Tenasserim provinces : Malayan peninsula and Archipelago : Philippines : S. E. Himalaya (? Gray).

Chr. chalcites (?), Temminck (*Pl. Col.* 102, f. 2).

SYN. Cuculus malayanus (?), Raffles.
Chr. smaragdinus, Blyth, J. A. S. XV. 53 (nec Swainson).
Trogon maculatus, Gmelin, Brown's Ill. Zool. pl. XIII. fig. Sup. (but the specific name quite inapplicable).

Inhabits Hill regions of India generally ; Arracan ; Tenasserim.

Chr. basalis.

SYN. Cuculus basalis, Horsfield.

Inhabits Malayan peninsula and Archipelago.

Genus EUDYNAMYS, Vigors and Horsfield.

Eu. orientalis.

SYN. Cuculus orientalis, Lin., the male.
C. punctatus
C. mindanensis } Linn. } the female.
C. scolopaceus
C. maculatus, Gmelin,
Var. ? C. indicus, Latham.
C. niger, Latham, (Edwards, pl. 58).

Coel, H. : *Kokil*, Beng. : male—*Tuhu* ; female *Chule*, Java : *Cowde-coha*, Cingh. Inhabits India, China, and Malay countries.

Genus OXYLOPHUS, Swainson.

O. melanoleucos (figured as the female *Edolio Cuckow* by Shaw).

SYN. Cuculus melanoleucos, Gmelin.
C. edolius, Cuvier.
Leptosomus afer apud, Franklin and Sykes.

Popiya, Hind. : *Kolu Bubul*, Beng. : *Golli Kokila* (' Milkman Cuckoo),' Telugu. Inhabits India generally ; Ceylon : rare on the eastern side of the Bay of Bengal, and never (?) in the Malay countries.

O. coromandus (*Pl. Enl.* 274, f. 2).

SYN. Cuculus coromandus, L.
C. collaris, Vieillot.

Inhabits India generally and Malay countries.

Subfam. PHŒNICOPHAINÆ.

Genus PHŒNICOPHAUS, Vieillot.

Cadow (generic), Malacca.

Sub-genus DASYLOPHUS, Swainson.

D. superciliosus, Cuv.

SYN. Ph. superciliosus, Cuv.

Inhabits Philippines

Subgenus PHŒNICOPHAUS.

Ph. pyrrhocephalus (Pennant's ' Indian Zoology,' p. 5).

SYN. Cuculus pyrrocephalus, Forster.
Ph. leucogaster, Dumeril.

Malkoha, Ceylon (Pennant). Inhabits Ceylon.

Ph. melanogaster (*Pl. Col.* 349).

SYN. Cuc. melanogaster, Vieillot—the young ?
Ph. calorhynchos, Temminck.

Inhabits Celebes : Moluccas.

Ph. curvirostris (Vail. *Ois. d' Afr.* t. 224).

SYN. Cuculus curvirostris, Shaw.
Ph. tricolor, Stephens.
Ph. viridis, Vieillot.
Cuculus melanognathus apud, Raffles nec Ph. melanognathus, Horsfield.

Inggang Balukar, Sumatra. Inhabits Malay countries.

Subgenus ZANCLOSTOMUS, Swainson.

Z. diardi.

SYN. Melias Diardi, Lesson.
Phœnicophaus tristis apud Blyth, J. A. S. XI, 928.

Cadow Kachie, Malacca. Inhabits Malay countries.

Z. sumatranus.

SYN. Cuculus sumatranus, Raffles.
Phœnicophus Crawfurdii, Gray.

Sepando, Sumatra. Inhabits Malay countries.

Z. tristis (Belanger, *Voy.* pl.).

SYN. Melias tristis, Lesson.
Phœnicophaus longicaudatus, Blyth.

Ban Kukil, Beng.: *Wa-pha-lai*, Arracan. Inhabits Bengal, Nepal, Assam, Arracan, Tenasserim provinces, Penang.

Z. viridirostris, Jerdon (*Ill. Ind. Orn.* pl. 8.)

SYN. Phœnicophaus Jerdoni, Blyth.

Kuppra Popya, Hind. *Wamaneh Kaki*, Telugu: *Handi Koota*, Ceylon (Daniell): *Mal caudatta*, Do. (Layard). Inhabits Peninsular India; Ceylon.

Z. javanicus (Horsfield's '*Zool. Res. in Java*,' pl.).

SYN. Phœnicophaus javanicus, Horsfield.
Coccysus chrysogaster, Temminck.
C. rubrirostris, Drapiez.
Chalybeate Cuckoo, Latham.

Kaka Apie, Malacca: *Bubut Kembang*, Java. Inhabits Malay countries; Tenasserim.

Genus RHINORTHA, Vigors.

Rh. chlorophæa (Belanger, *Voy.* pl. 1, the female).

SYN. Cuculus chlorophæus, Raffles.
C, sumatranus, Cuvier.
Phœnicophaus caniceps, Vigors.
Ph. viridirostris, Eyton.
Bubutus Isidorei et B. Davaucelei, Lesson.
Coccyzus badius, Gray.
Anadænus rufus et A. rufescens Swainson.

Slaya, *See-saya*, Malacca. *Bubut*, Sumatra. Inhabits Malay countries.

Genus TACCOCUA, Lesson.

T. infuscata, Blyth, J. A. S. XIV. 200.

Inhabits Tarai region bordering on Nepal and Sikkim.

T. affinis, Blyth, J. A. S. XV. 19.

Inhabits Central India; Mednapur jungles; Rajmahl; Mongbyr.

T. sirkee (Hardwicke's *Ill. Ind. Zool.*)

SYN. Centropus sirkee, Gray.
C. cuculoides, C. W. Smith, J. A. S. X. 658.
Coccyzus chrysogaster of Royle's list.

Inhabits vicinity of Cawnpore; Deyra Doon.

T. Leschenaultii, Lesson.

SYN. Zanclostomus sirkee apud, Jerdon, Catal.

Inhabits S. India.

Genus CENTROPUS, Illiger.

Mahuka, Hind.: *Kuka*, Beng.: *Atte Cuccula*, Cingh.: *Boop*, Arracan: *Bubut*, and *Kradok*, Malay.

C. eurycercus, A. Hay (J. A. S. XIV. 551.)

SYN. Cuculus bubutus apud Raffles, nec Centropus bubutus, Horsfield.

Inhabits Malayan peninsula; Sumatra.

C. philippensis, Cuvier (Horsfield's '*Zool. Res. in Java*', pl.).

SYN. Cuculus ægyptius, var. r, Latham.
Corydonyx pyrrhopterus, Vieillot.
Centropus bubutus, Horsfield.
C, castanopterus, Stephens.
C. fasciatus, C. W. Smith, J. A. S. X. 659.
Var. Polophilus sinensis, Stephens.

Inhabits S. E. Asia and its Archipelago.

C. chlororhynchos, Blyth, J. A. S. XVIII.

Inhabits Ceylon.

C. viridis (Brown's *Zoology*, pl. XIII. fig. *infra*).

SYN. Cuculus viridis, Scopoli.
C. bengalensis, Latham.
C. tolu apud, Raffles.
C. lepidus et C. affinis, Horsfield.
C. pumilus, and probably C. melanops, Lesson.
C. dimidiatus, Blyth, J. A. S. XII. 945.
C. rectunguis, Strickland, Ann Mag. N. H. XIX. 134.
Polophilus Lathami (?), Leach.

Inhabits India generally and Malay countries, more abundant in the latter.

C. bicolor, Lesson.

SYN. C. celebensis, Quoy and Gaymard, Voy de l' Astrolabe.

Inhabits Celebes; Moluccas.

Fam. TROGONIDÆ.

Genus HARPACTES, Swainson.

H. Hodgsonii, Gould (*Mon. Trogonidæ*, pl. 34).

Htoo-ta-roo, Arakan. Inhabits Nepal; Assam; Sylhet; Arracan.

H. kasumba (Gould's *Mon. Trogonidæ* pl. 29)

SYN. Trogon kasumba, Raffles.
Tr. condea, Cuvier,
Tr. fasciatus, Tem. (nec Pennant.)
Tr. Temminckii, Gould.

Kasumba, Sumatra. Inhabits Malayan peninsula; Sumatra.

H. Diardi (Gould's *Mon. Trogonidæ*, pl. 30).

Gumsoba, Kuna somba (Kasumba ?), Malacca. Inhabits Malayan peninsula; Sumatra.

H. fasciatus (Gould's *Mon. Trogonidæ* pl. 31).

SYN. Trogon fasciatus, Pennant.
Tr. malabaricus, Gould.

Kufni Churi of some, Hind: *Kurna* Mahr: *Kakurni*, *Kukki*, Can. Inhabits peninsula of India; Ceylon.

H. rutilus (Gould's *Mon. Trogonidæ* pl, 32.

SYN. Trogon rutilus, Vieillot,
Tr. cinnamomeus (?), Temminck.
T. Duvaucelei, Temminck.
T. fasciatus, var. B., Latham.

Ramguba, Malacca. Inhabits Malayan peninsula; Sumatra.

H. oreskios (Gould's *Mon. Trogonidæ* pl. 36).

SYN. Trogon oreskios, Temminck.

Inhabits Arracan ; Tenasserim provinces.

Fam. CAPRIMULGIDÆ.

Subfam. PODARGINÆ.

Genus PODARGUS, Cuvier.

P. Auritus, Vigors (Gould's *Icones Avium*).

SYN. Bombycistoma Fullartonii, Hay, J. A. S. X. 573.

Inhabits Malayan peninsula.

C. Javanensis, Horsfield (Tem. *Pl. Col.* 159; Horsfield's *Zool. Res. in Java.*)

SYN. ? P. cornutus, Tem. (the adult ?).

Inhabits Malayan peninsula, Java.

P. affinis, Blyth, J. A. S. XVI. 1180.

Inhabits Malayan peninsula.

Subfam. CAPRIMULGINÆ.

Genus EUROSTOPODUS, Gould.

Eu. cerviniceps (Gould's *Icones Avium*).

SYN. Lyncornis cerviniceps, Gould.

Twun-dweng-nghat, Arracan. Inhabits Burmese countries.

Eu. Temminckii (Gould's *Icones Avium*).

SYN. Lyncornis Temminckii, Gould.
Caprimulgus, imberbis, Temminck.
C. pulcher, Hay, Madr. Journ. XIII. 161.

Inhabits Malayan peninsula, Java.

Genus CAPRIMULGUS, Lin.

Chippuk, H *Dub chooree*, also *Dubbuk chooree*, also *Undhee chooree*, H. *and* B : *Tukang*, Malayan. *Ugeet payeen*, Arracan ; *Kuppo pitta* (Frogbird), Telugu ; also *As kappri gadu*, Tel.

C. indicus, Latham (Jerdon's *Ill. Ind. Orn.* pl. 24).

SYN. C. cinerascens, Vieillot.
C. innotatus, Hodgson (juv.)

Inhabits India generally, Malayan peninsula.

C. albonotatus, Tickell, J. A. S. II, 580.

SYN. C. gangeticus, Blyth, mentioned Ann. Mag. N. H. 1843, pl. 95.
C. macrourus apud Blyth, J. A. S. XI. 586.
C. nipalensis, Hodgson, Gray, Zool. Misc.

Inhabits northern and Central India : common in Lower Bengal.

C. macrourus, Horsfield (Gould's B. A. Vol. II. pl. 9).

Inhabits Arracan, Tenasserim, Malacca, Java, N. Australia ; very rare in Lower Bengal.

C. mahrattensis, Sykes P. Z. S. 1832, p. 83.

SYN. C. atripennis, Jerdon, Ill. Ind. Orn., art: C. asiaticus.
C. asiaticus, var. C. (?), Latham.

Inhabits S. India, Ceylon.

C. asiaticus, Latham (Vaill. *Ois. d' Afr., t.* ; Hardw. *Ill. Ind. Zool.*)

SYN. C. pectoralis, Cuv.
Bombay Goat sucker, Latham.

Bacca-meena, Cingh. Inhabits India generally.

C. monticolus, Franklin, P. Z. S. 1831, p. 116.

SYN. Great Bombay Goat sucker, Latham.

Inhabits India generally, Arracan (Ramree).

C. affinis, Horsfield.

Inhabits Java. This is the diminutive of C. monticolus ; wing 6½ inches.

Fam. CYPSELIDÆ.

Subfam. CYPSELINÆ.

Genus ACANTHYLIS, Boie.

Ac. caudacuta.

SYN. Hirundo caudacuta, Latham.
Cypselus giganteus, Temminck.

Inhabits Nilgiris, Ceylon, Malayan peninsula, rarely Arracan.

Ac. fusca (Gould's B. A. Vol. II. pl. 10 ; Swainson's *Zool. Ill., n. s.* pl. 42 ; Delessert, *Souvenirs*, &c., pt. 2, pl. 9, and *Mag. de Zool.* 1840, *Ois.* pl. 20).

SYN. Hirundo fusca, Shaw.
Chætura australis, Stephens.
Ch. macroptera, Swainson, Zool. Ill.
Ch. nudipes, Hodgson, J. A. S. V, 779.
Cypselus leuconotus, Delessert.
Acanthylis caudacuta, (Lath.) apud Gould, loc. cit.

Inhabits S. E. Himalaya, and Australia (at least as figured by Mr. Swainson and by Mr. Gould).

Ac. leucopygialis, Blyth, J. A. S. XVIII.

Inhabits Malayan peninsula.

Genus CYPSELUS, Illiger.

C. melba (Edwards, pl. 27).

SYN. Hirundo melba, Linn.
H. alpina, Scopoli.
Cypselus gutturalis, Vieillot.
C. gularis, Stephens.

Inhabits mountainous regions of the S. of Europe, Asia, and Africa. Rare in the British islands. Common in Central India, Nilgiris, &c.

C. apus (*Pl. Enl.* 542, fig. 1).

SYN. Hirundo apus, Linn.
Cypselus murarius, Tem.

Inhabits Europe and W. Asia : common in Afghanistan.

C. vittatus, Jardine and Selby (*Ill. Orn.* 2nd series, pl. 39).

Inhabits S. E. Asia, as China, and the Malayan peninsula, and archipelago: common at Penang. N. W. Himalaya.

C. leuconyx, Blyth, J. A. S. XIV. 218.

Inhabits India generally : rare.

C. subfurcatus, Blyth, J. A. S. XVIII.

SYN. C. affinis, var., Strickland, P. Z. S. 1846, p. 99.

Inhabits Malayan peninsula.

C. affinis, Gray (Hardw. *Ill. Ind. Zool*).

SYN. C. nipalensis, Hodgson, J. A. S. V. 780.
C. montanus, Jerdon, Madr. Journ. XIII. 144.

Ababil, Hind. Inhabits plains and lower hills of India generally ; rare in the Dukhun ; Ceylon.

C. balasiensis, Gray (Hard. *Ill. Ind. Zool.*)

SYN. C. palmarum, Gray.

Inhabits most part of India : wherever the *Borassus* grows, to the fronds of which it affixes its nest. Arracan (Ramree). Common in Ceylon.

Genus COLLOCALIA, G. R. Gray.

C. nidifica.

SYN. Hirundo nidifica, Latham.
H. esculenta apud Horsfield.
H. fuciphaga apud Shaw.
H. brevirostris, McClelland, P. Z. S. 1839, p. 155.
H. unicolor, Jerdon, Madr. Journ. XI. 238 ; referred to Cypselus, ibid. XIII. 173 ; and termed C. concolor, J. A. S. XI. 886.

Wahalæna, Cingh. Inhabits Nilgiris, Ceylon, Sikim, Assam ; and Malay countries.

C. fuciphaga.

SYN. Hirundo fuciphaga, Thunberg.

Inhabits rocky coasts bordering the Bay of Bengal, and of Malayan peninsula and archipelago.

Subfam. MACROPTERIGIINÆ.

Genus MACROPTERYX, Swainson.

caronatus.

SYN. Hirundo coronata, Tickell, J. A. S. II. 580 ; XV, 21.
M. klecho of India, Auctorum.

Inhabits jungles of Central and S. India, and of Ceylon.

M. klecho (Swainson's *Zooll. Ill.*, *n. s.*, pl. 74).

SYN. Hirundo klecho, Horsfield.
Cypselus longipennis, Temminck.

Inhabits Malayan peninsula, Java.

M. comatus (*Pl. Col.* 268).

SYN. Cypselus comatus, Temminck.

Inhabits Eastern Malasia ; Sumatra ?

Suborder PASSERES, L. modified.

Fam. CORVIDÆ.

Subfam. CORVINÆ (A.) Crows.

Genus CORVUS, Linn.

C. culminatus, Sykes (Hardwicke's *Ill. Ind. Zool.*)

SYN. C. orientalis, Eversmann.
C. corone, var., Franklin.
C. corax of Sumatra ? Raffles.

Dand kag, Beng. *Dhar kowa*, "*Dheri kowa* or *kurrial*" (Jerdon), Hind. *Pahari kowa*, Deyra Doon: *Burong gaga-gaga*, Malayan. Inhabits India generally ; Ceylon ; Assam ; Arracan ; Tenasserim ; Malayan peninsula ; Sumatra ? : also N. Asia (Eversmann). 'Raven' of Europeans in India.

C. corone, L. (*Pl. Enl.* 495).

Inhabits Europe; N. Asia ? Japan ? China ?

C. cornix, *L.* (*Pl. Enl.* 76.)

Inhabits N. Europe, and N. W. Asia ; Japan (Temminck).

C. splendens, Vieillot (*Pl. Col.* 425).

Kag or *Kak*, Beng. : *Kowa*, or *Path Kowa*, i. e. 'Common Crow' ; Hind. *Dasi kowa*, Deyra Doon : *Cac-co*, Cingh. Inhabits India generally ; Assam, Sylhet, Chittagong, and northernmost part only of Arracan, where its occurrence is of recent date.

C. macrorhynchos, Vieillot.

SYN. ? Fregilus enca, Horsfield.

Inhabits vicinity of Straits of Malacca.

C. frugilegus, L. (*Pl. Enl.* 484.)

Inhabits Europe ; Afghanistan ; Kashmir Japan (Temminck).

C. monedula, L, (*Pl. Enl.* 523).

Inhabits Europe ; Middle Asia ; Kashmir ; N. Africa.

B. NUTCRACKERS.

Genus NUCIFRAGA, Brisson.

N. hemispila, Vigors (Gould's 'Century,' pl. 36., Inhabits Himalaya.

C. CHOUGHS.

Genus PYRRHOCORAX, Vieillot.

P. alpinus, Vieillot (*Pl. Enl.* 35.)

SYN. Corvus pyrrhocorax, L.

Inhabits Alps, Himalaya, and other lofty mountain chains of Europe and Asia.

Genus FREGILUS, Cuv.

Fr. graculus (*Pl. Enl.* 255.)

SYN. Corvus graculus, L.
C. erythrorhamphus, Vieillot.
Fr. europœus, Lesson.
Fr. erythropus, Swainson.

Inhabits lofty mountain ranges of Europe and Asia: also high cliffs overhanging the sea.

Subfam. GARRULINÆ.

(A) MAGPIES.

Genus PICA, Brisson.

P. bottanensis, Ad. Delessert.

SYN. P. megaloptera, Blyth, J. A, S. XI. 193.

Inhabits Bootan.

P. media Blyth, J. A. S. XIII. 393, 1844.

SYN. F. sericea, Gould, P. Z. S. 1845, p. 2.

Inhabits China.

P. caudata, Ray (*Pl. Enl.* 488).

SYN. P. melanoleuca, Vieillot.

Inhabits Europe, N. Asia, and N. America west of the Rocky mountains range: variety common in Afghanistan.

Genus DENDRACITTA, Gould.

D. leucogastra, Gould, (*Trans. Zool. Soc.* Vol. I. pl. 12). Inhabits Nilgiris.

D. rufa (Vaill. *Ois. d' Afr.* pl. 59; Gould's 'Century,' pl. 42).

SYN. Corvus rufus, Scopoli.
Coracias vagabunda, Latham.
Pica rufiventris, Vieillot.

Handi-chacha ('pan-scraper,' imitative of cry) and *Takka-chor* ('rupee-thief'), Beng.: *Maha Lat*, H. (Jerdon).: *Mahtab*, and *Chand*, Sindee (Burnes). Inhabits India generally: plains and lower hills.

D. sinensis (Gould's 'Century,' pl. 43).

SYN. Corvus sinensis, Latham.

Kokiakak, Masuri. Inhabits Himalaya; China?

D. altirostris.

SYN. Crypsirina altirostris, Blyth. J. A. S. XII, 933.
D. frontalis (?), McClelland, P. Z. S. 1839, p. 163.

Inhabits Sikim: Assam?

Genus CRYPSIRINA, Vieillot.

Cr. varians (Horsfield's *Zool. Res. in Java*): Lev: *Ois. d' Afr.* 56).

SYN. Corvus varians, Latham.
C. temia, Shaw
Phrenotrix temia, Horsfield.

Chekitut, or *Benteot*, Java. Inhabits Tenasserim; Java.

Genus TEMNORUS, Lesson.

T. leucopterus (*Pl. Col.* 265).

SYN. Glaucopis leucopterus, Temminck.

Talong-gaga, or *Kolang-gaga*, Malayan. Inhabits Malayan peninsula and archipelago.

(B.) JAY-MAGPIES.

Genus CISSA, Boie.

C. venatoria (Hardw. *Ill. Ind. Zool.*)

SYN. Kitta venatoria, Gray.
Corvus sinensis (?), Boddaert.
C. speciosus (?), Shaw.
Corapica bengalensis, Lesson.

Inhabits S. E. Himalaya, Assam, Arracan, Tenasserim provinces.

C. puella, Blyth, J. A. S. XVIII.

Inhabits Ceylon.

Genus PSILORHINUS, Ruppell.

Ps. magnirostris, Blyth, J. A. S. XV. 27. Inhabits Ya-ma--dong mountains, separating Arracan from Pegu.

Ps. occipitalis, Blyth (J. A. S. XV. 27 Gould's 'Century,' pl. 41).

SYN. Pica erythrorhyncha apud Vigors and Gould.
Corvus sinensis (?), Linn.
C. erythrorhynchos (?), Boddaert.
Coracias melanocephala (?), Latham.
Ps. albicapillus, Blyth (the young).

Nil-khant, Masuri, Inhabits Himalaya: China?

Ps. flavirostris, Blyth (J. A. S. XV. 28).

Inhabits Sikim; Kashmir (vide J. A. S. XV. 284).

C. JAYS.

Genus GARRULUS, Brisson.

G. ornatus, Gray (Hardw. *Ill. Ind. Zool.* Gould's 'Century,' pl. 38).

SYN. G. bispecularis, Vigors.

Inhabits Himalaya.

G. gularis. (Hardw. *Ill Ind. Zool.* Gould's 'Century,' pl. 36, 40).

SYN. G. lanceolatus, Vigors.
G. Vigorsii, Gray (the young).

Ban-sarra, of hill men (Hutton). Inhabits Himalaya.

Genus PERISOREUS. Pr. Bonap.

P. infaustus (Gould's 'Bird's of Europe,' pl. 215).

SYN. Corvus infaustus, L.
C. sibiricus, Boddaert.
C. russicus, Gmelin.
C. mimus, Pallas.

Inhabits northern regions of the Old Continent.

D. Insertæ sedis.

Genus LOPHOCITTA, G. R. Gray.

L. galericulata (LeVaillant, *Ois. de Par.* pl. 42).

SYN. Corvus galericulatus, Cuv.
Lanius scapulatus, Licht.
L. coronatus, Raffles, (the female).
Vanga cristata, Griffith's An. Kingd.

Burong Jeri, Malayan. Inhabits Malayan peninsula: Sumatra: Java.

Genus TURNAGRA (?,) Lesson.

T. (?) striata (Gould's 'Century,' pl. 37)

SYN. Garrulus striatus, Vigors.

Inhabits Himalaya.

Subfam. GARRULACINÆ.

Genus GARRULAX, Lesson.

G. Belangeri, Lesson (*Zoologie du Voy. de M. Belanger*).

Inhabits Tenasserim provinces ; Pegu.

G. leucolophos, (Gould's 'Century,' pl. 18)

SYN. Corvus leucolophos, Hardwicke.

Inhabits Himalaya ; Assam ; Sylhet ; Arracan.

G. chinensis.

SYN. Lanius chinensis, Scopoli.
Corvus auritus, Daudin.
Turdus shanhu et T. melanopis, Gmelin.
Crateropus leucogenys, Blyth, J. A. S. XI. 180.

Inhabits China.

G. albogularis.

SYN. Ianthocincla albogularis, P. Z. S. 1835, p. 187.
Cinclosoma albigula, Hodgson, As. Res. XIX. 146.

Inhabits Himalaya.

G. pectoralis.

SYN. Ianthocincla pectoralis, Gould, P. Z. S. 1835, p. 186.
Cinclosoma grisaure, Hodgson, As. Res. XIX. 146.
G. melanotis, Blyth, J. A. S. XII. 149, variety.

Inhabits Himalaya ; Arracan ; Tenasserim Provinces.

G. moniliger.

SYN. Cinclosoma moniliger, Hodgson, As. Res. XIX. 147.
Ianthocincla pectoralis (?) apud McClelland, P. Z. S. 1839, p. 160.
G. McClellandii (?), Blyth, J. A. S. XII. 949.

Inhabits S. E. Himalaya ; Assam : Sylhet Tippera ; Arracan ; Tenasserim Provinces.

G. cærulatus.

SYN. Cinclosoma cœrulatum, Hodgson, As. Res. XIX. 147.

Inhabits S. E. Himalaya.

G. ocellatus (Gould's 'Century,' pl. 15.)

SYN. Cinclosoma ocellatum, Vigors.

Inhabits Himalaya.

G. rufogularis.

SYN. Ianthocincla rufogularis, Gould, P. Z. S. 1835, p. 187.
Cinclosoma rufimenta, Hodgson, As. Res. XIX. 148.

Inhabits S. E. Himalaya ; Cherra Punji ; Tippera.

G. squamatus (Jardine and Selby's *Ill. Orn.*, 2nd series, pl. 4).

SYN. Ianthocincla squamata, Gould, P. Z. S. 1835, p. 47.
Cinclosoma melanura, Hodgson. As. Res. XIX. 147.

Inhabits S. E. Himalaya.

G. subunicolor, Hodgson (described J. A. S. XII. 952 ; XIV. 599).

Inhabits S. E. Himalaya.

G. affinis, Hodgson (described J. A. S. XII. 950).

Inhabits S. E. Himalaya.

G. variegatus (Gould's 'Century,' pl. 16).

SYN. Cinclosoma variegatum, Vigors.
G. Abaillei, Lesson.

Inhabits N. E. Himalaya.

G. chrysopterus.

SYN. Ianthocincla chrysoptera, Gould, P. Z. S. 1835, p. 48.

Inhabits S. E. Himalaya.

G. erythrocephalus (Gould's 'Century,' p. 17.)

SYN. Cinclosoma erythrocephalum, Vigors.

Inhabits N. E. Himalaya.

G. ruficollis (Jardine and Selby's *Ill. Orn.* 2nd series, pl. 21).

SYN. Ianthocincla ruficollis, Jardine and Selby.
I. lunaris, McClelland, P. Z. S. 1839, p. 160.

Inhabits S. E. Himalaya ; Assam ; Sylhet ; Tippera.

G phœniceus (Gould's *Icones Avium*).

SYN. Ianthocincla phœnicea, Gould.
Crateropus puniceus, Blyth, J. A. S. XI, 180.

Inhabits S. E. Himalaya.

G. cachinnans ('Madras Journal,' X, 255, pl. 7).

SYN. Crateropus cachinnans, Jerdon.
Cr. Lafresnayii, Ad. Delessert.
Cr. Delesserti, LaFresnaye (nec Cr. Delesserti, Jerdon),

Inhabits Nilgiris.

G. (?) lineatus.

SYN. Cinclosoma lineatum, Vigors.
C. setiferum, Hodgson, As. Res. XIX. 148.

Inhabits Himalaya.

G. (?) imbricatus, Blyth, J. A. S. XII. 951.

Inhabits Bootan.

Genus ACTINODURA, Gould.

Act. Egertoni, Gould, P. Z. S. 1836, p. 18.

SYN. Leiocincla plumosa, Blyth, J. A. S. XII. 953.

Inhabits S. E. Himalaya ; Assam ; Sylhet.

Act. Nipalensis.

SYN. Cinclosoma nipalense, Hodgson, As. Rs. XIX. 145 (type of Ixops, Hodgson).

Inhabits S. E. Himalaya.

Genus SIBIA, Hodgson (*Sibya*, Nepal).

S. picoides, Hodgson (described J. A. S. VIII. 38).

Syn. Heterophasia cuculopsis, Blyth, J. A. S. XI. 187.

Inhabits S. E. Himalaya.

S. capistrata.

Syn. Cinclosoma capistratum, Vigors.
C. melanocephalum (?), Royle's List.
S. nigriceps, Hodgson.

Inhabits Himalaya.

Genus CUTIA, Hodgson.

C. nipalensis, Hodgson (J. A. S. XV. 772; XVI. 110).

Khatya, or *Khutya*, Nepal. Inhabits S. E. Himalaya.

Genus PTERUTHIUS, Swainson.

Pt. rufiventer, Blyth, J. A. S. XI. 183; XII. 954 (Gray's *Ill. Gen. Birds*).

Inhabits S. E. Himalaya.

Pt. erythropterus (Gould's 'Century,' pl. 11).

Syn. Lanius erythropterus, Vigors.

Inhabits Himalaya.

Subfam. LEIOTHRICANÆ.

Genus LEIOTHRIX, Swainson.

L argentauris.

Syn. Mesia argentauris, Hodgson, Ind. Rev. 1838, p. 88.

Inhabits S. E. Himalaya.

L. luteus.

Syn. Sylvia lutea, Scopoli.
Tanagra sinensis, Gmelin.
Parus furcatus, Temminck.
Bahila calipyga, Hodgson. Ind. Rev. 1838, p. 88.

Inhabits Himalaya ; China ?

L. strigula (Ad. Delessert, *Souvenirs*, &c. pt. 2, pl. 8).

Syn. Siva strigula Hodgson, Ind. Rev. 1838, p. 89.
Muscicapa variegata, Dellessert, Mag. de Zool 1840, Ois., t. 20.
L. chrysocephala, Jameson.

Inhabits Himalaya.

L. cyanouroptera.

Syn. Siva cyanouroptera, Hodgson, Ind. Rev. 1838, p. 88.
Leiothrix lepida, McClelland, P. Z. S. 1839, p. 162.

Inhabits Himalaya; Assam.

L. ignitincta.

Syn. Minla ignitincta, Hodgson, Ind, Rev. 1838, p. 32.
L. ornata, McClelland, P. Z. S, 1839, p. 162.

Inhabits S. E. Himalaya ; Assam.

L. cinerea.

Syn. Minla cinerea, Blyth, J. A. S. XVI, 449.

Inhabits S. E. Himalaya.

L. castaniceps.

Syn. Minla castaniceps, Hodgson, Ind. Rev. 1838, p. 33.

Inhabits Himalaya.

L. vinipectus.

Syn. Siva vinipectus, Hodgson, Ind. Rev. 1828, p. 89.

Inhabits S. E. Himalaya.

L. chrysotis (chrysopterus ? seu leucotis ?)

Syn. Proparus chrysotis, Hodgson, J. A. S. XIII. 938 ; XVI. 448.

Inhabits S. E. Himalaya.

Genus IXULUS, Hodgson.

I. occipitalis, J. A. S. XIV. 552.

Syn. Siva occipitalis, Blyth, J. A. S. XIII. 937.

Inhabits Sikim.

I. flavicollis.

Syn. Yuhina ? flavicollis, Hodgson, As. Res. XIX. 167.

Inhabits Himalaya (Masuri to Bootan).

Genus YUHINA, Hodgson.

Y. gularis, Hodgson (*As. Res.* XIX. 166).

Inhabits S. E. Himalaya.

Y. occipitalis, Hodgson (*As. Res.* XIX. 166).

Inhabits S. E. Himalaya.

Genus MYZORNIS, Hodgson.

M. pyrrhoura, Hodgson, (J. A. S. XII. 984; XIV. 561).

Genus ERPORNIS, Hodgson.

E. xantholeuca, Hodgson, J. A. S. XIII. 380.

Syn. E. xanthochlora, Hodgson, P. Z. S. 1845, p. 33.

Inhabits S. E. Himalaya; Arracan; Malayan peninsula.

Subfam. PARINÆ.

(A. *Paradoxornis* sub-series.)

Genus CONOSTOMA, Hodgson.

C. æmodius, Hodgson (J. A. S. X. 856).

Inhabits Nepal.

Genus HETEROMORPHA, Hodgson.

H. ruficeps (J. A. S. XII. 1010, pl. .)

Syn. Paradoxornis ruficeps, Blyth, J. A. S. XI. 187.

Inhabits Sikim ; Bootan ; Arracan.

H. (? *Paradoxornis* ?) *caniceps*, Blyth, J. A. S. XVIII. Inhabits Sikim.

Genus SUTHORA, Hodgson.

S. ruficeps.

SYN. Chleuasicus ruficeps, Blyth, J. A. S. XIV, 578.

Inhabits Sikim.

S. nipalensis, Hodgson (*Ind. Rev.* 1838, p. 32). Inhabits S. E. Himalaya.

S. fulvifrons, Hodgson (J. A. S. XIV. 579). Inhabits Nepal.

Genus FULCUNCULUS, Vieillot.

F. frontatus (Gould's B. A. Vol. II. pl. 79).

SYN. Lanius frontatus, Latham.

Inhabits E. and S. Australia.

Genus PARUS, Linn.

P. flavocristatus, Lafresnaye.

SYN. P. sultaneus, Hodgson, Ind. Rev. 1837, p. 81.
Melanochlora flavocristata et M. sumatrana, Lesson.

Inhabits Nepal; Sikim; Bootan; Assam; Malayan peninsula; Sumatra.

P. monticolus, Vigors (Gould's 'Century,' pl. 29, f. 2). Inhabits Himalaya.

P. cinereus, Vieillot (*Pl. Col.* 287, f. 2; LeVaillant, *Ois. d' Afr.* pl. 139, f. 1).

SYN. P. atriceps, Horsfield, Linn. Tr. XIII. 160.
P. nipalensis, Hodgson, Ind. Rev. 1838, p. 31.

Inhabits Himalaya; Assam; Central and S. India; Ceylon; Java.

P. xanthogenys, Vigors (Gould's 'Century,' pl. 29, f. 1).

SYN. P. aplonotus, Blyth, J. A. S. XVI. 444.

Inhabits N. W. Himalaya; Central and South India.

P. spilonotus, Blyth, J. A. S. XVIII.

SYN. P. xanthogenys apud Blyth, J. A. S. XVI. 445.

Inhabits Himalaya.

P. rufonuchalis, Blyth, J. A. S. XVIII.

Inhabits Tyne range, beyond Simla.

P. melanolophos, Vigors (Gould's 'Century,' pl. 30, f. 2). Inhabits N. W. Himalaya.

P. rubidiventris, Blyth, J. A. S. XVI. 445. Inhabits Nepal.

P. dichrous, Hodgson, J. A S. XIII. 943. Inhabits Nepal.

P. iouschistos, Hodgson, J. A. S. XIII. 943. Inhabits Nepal.

Genus ORITES, Mœrrhing.

O. erythrocephalus (Gould's 'Century,' pl. 30, f. 1).

SYN. Parus erythrocephalus, Vigors.

Inhabits Himalaya,

Genus SYLVIPARUS, Burton.

S. modestus, Burton, P. Z. S. 1835, p. 154.

SYN. Parus sericophrys, Hodgson, J. A. S. XIII. 942; XVI. 446.

Inhabits Himalaya.

Genus ÆGITHALUS, Vigors.

O. flammiceps, Burton, P. Z. S., 1835, pl. 153.

SYN. Dicæum sanguinifrons, A. Hay, J. A. S. XV. 44.

Inhabits N. W. Himalaya.

Subfam. PARADISEINÆ.

B. Sub-series with bills of medium length.

Genus PARADISEA, L.

P. apoda, Lin. (*Pl. Enl.* 254; Vieillot, *Ois. de Par.* t. 1.)

SYN. P. major, Shaw.

Inhabits N. Guinea.

P. minor, Shaw (Vieillot, *Ois. de Par.* pl. 2). Inhabits N. Guinea.

P. rubra, Cuvier (Vaill. *Ois. de Par.* t. 3).

SYN. P. sanguinea, Shaw.

Inhabits N. Guinea.

Genus CICINNURUS, Vieillot.

C. regius (*Pl. Enl.* 496; Vaill. *Ois de Par.* t. 7).

SYN. Paradisea regia, L.
C. spinturnix Lesson.

Inhabits N. Guinea.

Subfam. GRACULINÆ.

A. Maina and Starling sub-series. Inhabiting Europe, Asia, and N. Africa.

a. Of more bulky form; gait saltatory.

Genus GRACULA, L.

Gr. javanensis, Osbeck (Edwards, pl. 17, lower figure).

SYN. Mainatus major, Brisson described J. A. S., XV, 31.
M. sumatranus (?), Lesson.
Gr. religiosa, L., var. B., Latham.

Inhabits Malayan peninsula and archipelago; Nicobar Islands.

Gr. intermedia, A. Hay (J. A. S. XV. 32). *Paharia Maina*, Hind.; *Thale-gu*, Arracan, Inhabits Nepal; Assam; Arakan; Tenasserim Provinces.

Gr. religiosa, L. (Edward's pl. 17, upper figure).

SYN. Eulabes indica, Cuvier.
Pastor musicus, Daudin.
Mainatus javanus, Lesson, apud Jerdon, J. A. S. XII. 178 (bis).

Inhabits S. India; Ceylon.

Gr. ptilogenys, Blyth, J. A. S., XV. 285.

Inhabits Ceylon.

Genus AMPELICEPS, Blyth.

A. coronatus, Blyth, J. A. S., XI. 194; XV. 32.

b. **Of less bulky form, the gait ambulatory.**

Genus ACRIDOTHERES, Vieillot.

Acr. tristis (*Pl. Enl.* 219).

SYN. Paradisea tristis, L.
Gracula gryllivora, Daudin.

Bhat Salik, Beng.: *Maina*, H.: *Bunnee*, or *Saloo* (Tickell): *Saloonku*, Mahr: *Gorwuntra*, Can. (Jerdon). *Dza-ret-monk*, Arracan.

Acr. ginginianus (Vaill. *Ois. d'Afr.* t. 95, f. 2).

SYN. Turdus ginginianus, Latham.
Gracula grisea, Daudin (t. 95, f. 2).

Gang Salik, Beng.: *Ganga Maina*, H.: *Lali*, Sinde (Burnes.) Inhabits Bengal, Upper India, Scinde; Tenasserim Provinces.

Acr. cristatellus, (Edwards, pl. 19).

SYN. A. cristatellus, L.
Acr. fuliginosus Blyth, J. A. S. XIII. 362 (the young).

Inhabits China.

Acr. griseus.

SYN. Pastor griseus, Horsfield.
Maina cristalloides, Hodgson.
P. fuscus (?), Wagler.
P. mahrattensis (?), Sykes.

Jhont Salik (i. e. 'Crested Maina'), Beng.; *Dza-ret-monk-teng*, Arracan: *Jallak Sungu*, Java. Inhabits India generally (?); Bengal; Nepal; Arracan; Tenasserim; Penang; Sumatra; Java.

Genus STURNUS, Lin.

St. temporalis.

SYN. Pastor temporalis, Tem.

Inhabits China.

St. contra, L. (*Pl. Enl.* 280; Edwards pl. 187).

SYN. St. capensis, L.
Pastor auricularis, Drapiez.
P. jalla, Horsfield.

Ablaka, H.: *Guia-leggra*, Beng.: *Qwyai-dzaret*, Arracan: *Jallak*, or *Jallak-uring*, Java. Inhabits India; Sumatra; Java.

St. vulgaris, L.

SYN. st. indicus, Hodgson.

Telia Maina, Hind.: *Saruk*, Kabul. Inhabits Europe; Asia: common in Himalaya. Upper Bengal?

St. unicolor, Marmora.

Inhabits N. Africa; Sardinia: and a more brilliantly glossed variety in Afghanistan.

Genus PSAROGLOSSA, Hodgson.

Ps. spiloptera (Gould's 'Century,' pl. 34).

Syn. Lamprotornis spilopterus, Vigors.

Puli, Masuri. Inhabits Himalaya.

Genus STURNIA, Lesson.

St. sericea (Brown's 'Zoology,' pl. 21).

SYN. Sturnus sericeus, Latham.

Inhabits China.

St.——? Inhabits Ceylon.

St. erythropygia, Blyth, J. A. S. XV. 34.

Inhabits Nicobar islands.

St. Blythii (Jerdon's *Ill. Ind. Orn.* pl. 22).

SYN. P. malabaricus apud Jerdon, Madr. Journ. XI, 22.
Pastor Blythii, Jerdon.
St. Dominicana (?), apud Blyth. J. A. S. XIII. 363.

Inhabits India; Malabar.

St. malabarica.

SYN. Turdus malabaricus, Gmelin (No. 51, nec No. (125).
Pastor malabaricus, var., apud Jerdon, Madr. Journ. XI, 23.
P. nanus (?) et Gracula cinerea (?), Lesson.

Pawi, Hind. Inhabits India generally (but somewhat local), Assam; Arracan; Tenasserim.

St. Pagodarum.

SYN. Turdus pagodarum, Gm.
T. melanocephalus, Vahl.
Sturnus subroseus, Shaw (apud G. R. Gray.)

Monghyr Pawi, Beng. Inhabits India generally; Assam, Arracan (Ramree). Non-resident in Lower Bengal, but common in the jungles westward.

St. cana, Blyth, J. A. S. XIII. 365.

N. B. This is the young of a species nearly allied to, but distinct from, the next, some of whose reputed synonymes perhaps belong to it.

Inhabits China (Macao).

St. daurica (*Pl. Enl.* 627, f. 2).

SYN. Turdus dauricus et T. sturninus, Pallas.
T. dominicanus, Gmelin.
Pastor malayensis, Eyton.

Inhabits Malayan peninsula; China (?).

Genus CALORNIS, G. R. Gray.

C. *affinis*, A. Hay, J. A. S. XV. 36,369.

Inhabits Tippera; Arracan; Nicobar islands; Tenasserim (?)

C. *cantor* (*Pl. Col.* 199, f. 1. 2).

SYN. Turdus cantor, Gmelin.
T. chalybeus et T. strigatus, Horsfield.

Biang, *Kala loyang*, and *Burong Kling*, Malay. *Sling*, Java. Inhabits Malayan peninsula; Sumatra; Java.

Genus PASTOR, Temminck.

P. roseus (Edwards, 20; *Pl. Enl.* 250).

SYN. Turdus roseus, L.
T. suratensis, Latham.

Tillyer, H. (Jerdon). *Golabi Maina*, H. Beng.: *Bya*, Sinde (Burnes). Inhabits Europe, Asia and N. Africa; very common in Hindustan.

Genus ENODES, Temminck.

E. erythrophrys (Tem. *Pl. Col.* 267).

Syn. Lamprotornis erythrophrys, Tem.

Inhabits Moluccas, Java.

Genus MINO, Lesson.

M. calvus (*Pl. Enl.* 200).

Syn. Gracula calva, L.

Inhabits Moluccas; Philippines.

Fam. FRINGILLIDÆ.

Subfam. PLOCEINÆ.

Genus PLOCEUS, Cuvier.

Pl. hypoxanthus ? (Pl. Col).

Syn. Loxia hypoxantha (?), Daudin.
Pl. philippinus apud Horsfield, (Lin. Tr. XIII, 160,) et Temminck ; nec apud Strickland, J. A. S. XII. 945.

Inhabits Java ; Philippines.

Pl. philippinus (*Pl. Enl.* 135, f. 2).

Syn. Loxia philippina, T. (apud Strickland.)
Pl. baya, Blyth J. A. S. XII. 945.

Baya, H. : *Chindora*, and *Tal Babie*, Beng. Inhabits India generally ; Burmese countries ; Malayan peninsula ; Sumatra ?

Pl. manyar.

Syn. Fringilla manyar, Horsfield, Lin. Tr. XIII. 160.
Euplectes flaviceps, Swainson.
Eu. striatus, Blyth, J. A. S. XI. 873, and XII. 181 (bis).
Eu. bengalensis (?) apud Jerdon, Catal.
Ploceus flaviceps (?), Cuv.

Inhabits Bengal ; Nepal ; Assam ; Scinde ; S. India ; Java.

Pl. bengalensis (Edwards, pl. 189).

Syn. Loxia bengalensis, L.
L. regina, Boddaert.
Coccothraustes chrysocephala Vieillot.
Euplectes albirostris, Swainson.

Sarbo Baya, Hind. Inhabits Bengal.

Subfam. ESTRELDINÆ.

Genus MUNIA, Hodgson.

M. *maja* (Edwards pl. 306, f. 1).

Syn. Loxia maja, L.
L leucocephala, Raffles.
Maia sinensis Brisson.

Inhabits Malayan peninsula ; Sumatra.

M. ferruginosa.

Syn. Loxia ferruginosa, Latham.
La Maina, Buffon.

Inhabits Java.

M. rubronigra, Hodgson, *As. Res.* XIX. 153.

Syn. Lonchura melanocephala, McClelland, P. Z. S. 1839, p. 163.
Loxia malacca, Var., Lath.
L. indica, Lath.—Young ?

Pora Munia : *Nukroul*, Masuri. Inhabits Bengal ; Nepal ; Assam ; Arracan ; Tenasserim. Nec *Chinese Sparrow*, Edwards, pl. 43, on which is founded *Coccothraustes sinensis*, Brisson, *Loxia malacca*, 3, Linn., *Malacca Grosbeak*, var. *A*, Latham, and which is also *Loxia atricapilla*, Vieillot, *Dict. Class, d'Hist. Nat.*

M. malacca Edwards, pl. 355).

Syn. Loxia malacca, L.
Coccothraustes javensis, Brisson.
Amadina sinensis apud Blyth, J. A. S. XV. 36.

Nukl-nore, H. (Jerdon). Inhabits Indian peninsula ; Ceylon ; rare in Lower Bengal.

M. undulata (Edwards, pl. 40).

Syn. Loxia undulata and
L. punctulata, var. A. Latham.
L. bicolor, Latham, the young.
Munia lineoventer, Hodgson.

Tela Munia, H : *Simbaz*, Masuri : *Sing baz* or *Sheen baz* (Jerdon). Inhabits India generally ; Arracan ; Tenasserim.

M. punctularia.

Syn. Loxia punctularia, L.
Fringilla nisoria, Temminck.

Inhabits Malayan peninsula and Archipelago.

M. molucca ? (*Pl. Enl.* 139, f. 2).

Syn. Loxia molucca, (?) L.
Munia acuticauda, Hodgson.

Inhabits Nepal ; Malayan peninsula.

M. pectoralis.

Syn. Amadina pectoralis, Jerdon, J. A. S. XIII. 949, described in Madras Journ. XIII. 171.

Inhabits S. India.

M. striata.

Syn. Loxia striata, Latham.
Fringilla leuconota, Temminck.

Inhabits Indian peninsula ; Ceylon : Arracan ; not common in Lower Bengal.

M. melanictera ?

Syn. Fringilla melanictera (?), Gmelin.
Amadina leucogastra, Blyth, J. A. S. XV. 286.

Inhabits Malayan peninsula.

M. malabarica.

Syn. Loxia malabarica, L.
Lonchura cheet, Sykes.
Loxia bicolor, Tickell (nec Latham).

Sar Munia ; *Piduri*, B. : *Chorga*, H. Inhabits India generally ; Ceylon.

Genus ERYTHRINA.

E. prasina (Tem. Pl. *Col*, 96).

Syn. Fringilla prasina, Sparrman (nec Latham).
Fr. sphecura, Temminck.
Emberiza quadricolor, Gmelin.
E. varidis, Swainson.
Emberiza cyanopis (?), Gmelin.

Inhabits Indian Archipelago.

Genus AMADINA, Swainson.

A. (?) *oryzivora* (*Pl. Enl.* 388 ; Edwards, pl. 41, 42).

SYN. Loxia oryzivora, L.

Inhabits Indian Archipelago.

Genus ESTRELDA.

E. amandava (*Pl. Enl.* 115, f. 2, 3; Edwards, pl. 355, f. 1).

SYN. Fringilla amandava, L.
Fr. punicea, Horsfield, Linn. Tr. XIII. 160.
Fr. senegalensis, Vieillot (vide Dict. Class).

Lal or *Lal Munia*, H.: *Lal* (male), *Munia* (female), Masuri. Inhabits India generally and Malay countries.

E. formosa.

SYN. Fringilla formosa, Latham.

Inhabits Central India.

Genus SCISSIROSTRUM, Guerin.

Sc. Pagei. Guerin (*Mag. de Zool.*)

Inhabits Moluccas.

Subfam. PASSERINÆ.

Genus PASSER, Ray.

P. indicus, Jardine and Selby (*Ill. Orn.* pl. 118).

Charia, or *Chata*, B.: *Gourya*, H. Inhabits India generally; Ceylon; Arracan.

P. pyrrhonotus, Blyth, J. A. S. XIII. 946. Inhabits Scinde.

P. salicaria (Savigny, *Desc. Egypt, Nat. Hist.*, I, pl. f. 7).

SYN. Fringilla salicaria.
Fr. hispanioleusis, Temminck.

Inhabits N. Africa; Sardinia; Sicily; Syria; Afghanistan.

P. cinnamomeus.

SYN. Pyrgita cinnamomea, Gould, P. Z. S. 1835, p. 85.

Inhabits N. W. Himalaya.

P. flaveolus, Blyth, J. A. S. XIII. 946.

Inhabits Arracan; Tenasserim.

P. montanus (*Pl. Enl.* 267, f. 1).

SYN. Fringilla montana, L.

Inhabits Temperate parts of Europe and Asia; China; Burmah; Malayan peninsula; Java.

Genus PETRONIA, Pr. Bonap.

P. stulta (*Pl. Enl.* 225).

SYN. Fringilla stulta et Fr. bononiensis, Gmelin.
Fr. petronia, L.
Petronia rupestris, Bonap.

Inhabits Afghanistan; W. Asia; S. Europe; N. Africa.

P. flavicollis.

SYN. Fringilla flavicollis, Franklin, P. Z. S. 1831, p. 120.

Raji, or *Jungli Churia*, H. Inhabits India generally, but not on the alluvium of Lower Bengal.

Subfam. FRINGILLINÆ.

Genus MONTEFRINGILLA (?), Brehm.

M. (?) nemoricola.

SYN. Fringillauda nemoricola, Hodgson, As. Res. XIX, 158.

Inhabits Himalaya.

Genus FRINGILLA, L.

Fr. montifringilla, L. (*Pl. Enl.* 54, f. 2).

SYN. Loxia hamburghia, Gemelin.

Inhabits northern and temperate parts of Europe and Asia; Afghanistan; N. W. Himalaya.

Genus PYRRHOSPIZA, Hodgson.

P. punicea, Hodgson, J. A. S. XIII. 953.

SYN. Propyrrhula rubeculoides, Hodgson, P. Z. S. 1845, p. 36.

Inhabits Himalaya; Tibet.

Genus PROCARDUELIS, Hodgson.

Pr. nipalensis, Hodgson.

SYN. Carduelis nipalensis, Hodgson, As. Res. XIX. 157.
Linota saturata et. L. fusca (?), Blyth, J. A. S. XI, 92-3.

Inhabits S. E. Himalaya.

Genus CARPODACUS.

C. rodopepla (Gould's 'Century,' pl. 31, f. 1).

SYN. Fringilla rodopepla, Vigors.

Inhabits S. E. Himalaya.

C. rodochrous (Gould's 'Century,' pl. 31, fig. 2).

SYN. Fringilla rodochroa, Vigors.

Inhabits Himalaya.

C. erythrinus ? (Vieillot, *Ois. Chant.* pl. 65).

SYN. Fringilla erythrina (?), Meyer.
Coccothraustes rosea, Vieillot.
Loxia madagascariensis, L.
Pyrrhulinota roseata, Hodgson, P. Z. S. 1845, p. 36.

Tuti, or *Surkhar Tuti*, H. Inhabits India generally; Arracan.

Genus HÆMATOSPIZA, Hodgson.

H. boetonensis ?

SYN. Loxia boetonensis ? Latham.
L. indica ? Gmelin, nec Latham.
Corythus sepahi, Hodgson, As. Res. XIX. 151.

Inhabits Himalaya.

Genus PYRRHULA, Mœrhing.

P. nipalensis, Hodgson, J. A. S. XIX. 155. Inhabits S. E. Himalaya.

P. erythrocephalus, Vigors (Gould's 'Century,' pl. 32). Inhabits Himalaya.

Genus PROPYRRHULA, Hodgson.

Pr. subhimachala, Hodgson.

SYN. Corythus subhimachalus, Hodgson, As. Res. XIX. 152.

Inhabits N. E. Himalaya.

Genus LOXIA, L.

L. curvirostris, L. (*Pl. Enl.* 218). Inhabits Europe; Afghanistan.

L. himalayensis, Hodgson, J. A. S. XIII. 952.

SYN. L. himalayana, Hodgson, P. Z. S. 1845, p. 35.

Inhabits Himalaya.

Genus CHRYSOMITRIS, Boie.

Chr. spinoides (Gould's 'Century,' pl. 33, f. 2).

SYN. Carduelis spinoides, Vigors.

Inhabits Himalaya.

Genus CARDUELIS, Stephens.

C. caniceps, Vigors (Gould's Century, pl. 33, f. 1; Royle's *Ill. Him. Bot.* pl. 8, f. 2).

SYN. Fringilla orientalis, Eversmann.
Shiru, H.

Inhabits Middle Asia; Afghanistan; Kashmir, &c.

Genus LIGURINUS, Brisson.

L. sinicus (*Pl. Enl.* 257, f. 3).

SYN. Fringilla sinica, L.
Loxia sinensis Gmelin.
Lig. xanthogramma? apud Blyth, J. A. S. XIII. 956; vide XVI. 470.

Inhabits China.

Genus SERINUS (?), Brehm.

S. (?) *aurifrons.*

SYN. Emberiza aurifrons, Blyth, J. A. S. XVI. 476.

Inhabits Tyne range, beyond Simla.

Genus COCCOTHRAUSTES, Brisson.

C. melanoxanthus, Hodgson, *As. Res.* XIX. 150. Inhabits S. E. Himalaya.

C. carnipes, Hodgson, *As. Res.* XIX, 151.

SYN. C. speculigerus (?), Brandt.

Inhabits Himalaya.

C. icterioides, Vigors (Gould's 'Century,' pl. 45). Inhabits N. E. Himalaya.

Subfam. EMBERIZINÆ.

Genus EMBERIZA, L. (*Gundam* H.)

E. albida, Blyth, J. A. S. XVIII. Inhabits Tyne range, beyond Simla.

Genus EUSPIZA, Bonap.

Eu. simillima, Blyth, J. A. S. XVIII.

SYN. Emberiza melanocephala of India, Auctorum.
Tanagra radis (Mus. Carls), Lath.,—the female?

Inhabits S. India. (*N B.* Differs from Eu. melanocephalus in its much smaller size; the closed wing measuring 3½ in. instead of 4 in., &c.)

Eu. luteola (G. R. Gray, *Ill. Gen. Birds*, pl. ,).

SYN. Emberiza luteola (Mus. Carls, fasc. IV, t. 93), Latham,—the female.
E. icterica, Eversmann.
E. brunniceps, Brandt.
Loxia flavicans, var. A. Latham.

Inhabits plains of India; Afghanistan, &c.

Eu. flavogularis, Blyth, J. A. S. XVIII.

SYN. Emberiza aureola of India, Auctorum.

Inhabits Nepal; Tippera; Arrakan.

Eu. Lathami (Jardine and Selby, *Ill. Orn.* pl. 132).

SYN. Emberiza Lathami Gray.
E. cristata, Vigors.
E. subcristata, Sykes (the female).
E. erythroptera Jardine and Selby.
E. nipalensis, Hodgson.
Fringilla melanictera, Gmelin.

Inhabits plains and lower hills of India, China, &c.

Eu. hortulana (*Pl. Enl.* 247, f. 1).

SYN. Emberiza hortulana, L.
E. Buchanani, Blyth, J. A. S. XIII. 957.
E. chlorocephala apud Hodgson?

Inhabits Europe and Asia; India.

Eu. melanops.

SYN. Emberiza melanops Blyth, J. A. S. XIV. 554.
E. chlorocephala of Nepal apud Hodgson (?), vide J. A. S. XV. 39.

Inhabits Tippera.

Eu. fucata.

SYN. Emberiza fucata, Pallas.
E. lesbia apud Temminck (nec Gmelin).
E. cia apud Jerdon, Catal.

Putthur Chirta, (H. Jerdon). Inhabits Bengal; Deyra Doon; S. India?

Eu. pusilla ?

SYN. Emberiza pusilla (?), Pallas.
E. sordida, Hodgson, J. A. S. XIII, 958 (the female); male described, J. A. S. XV. p. 40.
E. (Ocyris) oinops, Hodgson, P. Z. S. 1845, p. 35.

Inhabits S. E. Himalaya.

Eu. cia (*Pl. Enl.* 30, f. 2; 511, f. 1).

SYN. Emberiza cia, L.
E. barbata, Scopoli.
E. lotharingica, Gmelin.

Inhabits Europe and Asia. Specimens from near Masuri. Capt. Hutton (1848.)

Subfam. ACCENTORINÆ.

Genus ACCENTOR, Bechstein.

A. nipalensis, Hodgson, J. A. S. XII. 958; P. Z. S. 1845, p. 34.

SYN. A. immaculatus, Hodgson, (in abraded plumage.)
A. cacharensis, Hodgson (in first plumage.)

From Nepal. B.

A. variegatus Blyth, J. A. S. XII. 958 (described XI. 187). Inhabits Sikkim.

A. strophiatus, Hodgson, J. A. S. XII. 959, P. Z. S. 1845, p. 34. Inhabits Himalaya generally

A. atrogularis, Hutton, J. A. S. XVIII. Inhabits Tyne range, beyond Simla.

A. mollis, Blyth, J. A. S. XIV. 581. Inhabits Sikkim.

Subfam. ALAUDINÆ.

Genus ALAUDA, L.

A. arvensis, L. (*Pl. Enl.* 363, f. 1).

SYN. A. cœlipeta Pallas,
A. italica, Gmelin. } apud G. R. Gray.
A. longipes, Latham,
A. dulcivox, Hodgson.

Inhabits Europe and Asia: Sub-Himalaya.

A. gulgula, Franklin.

SYN. A. gangetica, Blyth.
A. gracilis, Blyth, var.
A. leiopus, Hodgson, var.

Inhabits India generally.

A. malabarica, Scopoli.

SYN. A. deva, Sykes,

Inhabits S. India.

Subgenus CALANDRELLA, Kaup.

C. brachydactyla.

SYN. Alauda brachydactyla. Temminck.
A. calandrella, Bonelli.
A. arenaria, Stephens.
A. dukhunensis, Sykes.
Emberiza baghaira. Franklin.
E. olivacea, Tickell, J. A. S. II. 578.
Baay-geyra Lark, Latham.

Baghairi, H. *Ortolan* of Europeans in India. Inhabits Europe, Asia, and N. Africa. Common in India.

C. raytal, Blyth.

SYN. Alauda raytal, Buchanan Hamilton, J. A. S. XIII. 962, XV. 40.

Inhabits dry sand-dunes of Ganges, Indus, &c.

Genus CALERIDA, Boie.

G. chendoola.

SYN. Alauda chendoola, Franklin.
A. gulgula apud Sykes.
Crested Calandre Lark, Latham.

Chendul, H. Inhabits sandy plains of India.

G. Boysii, Blyth.

SYN. Certhilauda Boysii, Blyth, J. A. S. XV. 41.

Inhabits Bengal.

Genus MIRAFRA, Horsfield.

M. Hayii, Jerdon, J. A. S. XIII. 959. Inhabits Coromandel Coast.

M. affinis, Jerdon, J. A. S. XIII. 959. Inhabits Middle and S. India; Ceylon.

M. erythroptera, Jerdon, J. A. S. XIII. 958. (*Ill. Ind. Orn.*, pl. 38). Inhabits S. India.

M. cantillans, Jerdon, J. A. S. XIII, 960. Inhabits India generally; rare in Lower Bengal.

M. assamensis, McClelland, P. Z. S. 1839, pl. 162.

SYN. Alauda mirafra, Temminck (apud Jerdon, nec apud G. R. Gray).
Finch Lark, Latham.

Inhabits Bengal: Nepal; Assam.

M. phœnicura, Franklin, P. Z. S. 1831, p. 119. Inhabits S. India.

Genus PYRRHULAUDA, A. Smith.

P. grisea (*Pl. Col.* 269, f. 2).

SYN. Alauda grisea, Scopoli.
A. gingica, Gmelin.
Fringilla crucigera, Temminck.

Chak Bharái; *Dhulo Cháta*, Beng.: *Decora*, H., vulgo; *Dubhuk Chari* ('Squat Sparrow') H. (Jerdon). Inhabits India generally.

Fam. MOTACILLIDÆ.

Genus HETERURA, Hodgson.

H. sylvana, Hodgson, J. A. S. XIV. 556; P. Z. S. 1845, p. 33 (Jardine's *Contrib. Orn*, 1848, pl.   ). Inhabits Himalaya.

Genus ANTHUS, Bechstein.

Sub-genus DENDRONANTHUS, Blyth.

D. trivialis (*Pl. Enl.* 660, f. 1).

SYN. Alauda trivialis, L.
A. minor, Bewick.
Anthus arboreus, Temminck.

Inhabits Europe and N. Asia; Himalaya.

D. maculatus.

SYN. Anthus maculatus et A. brevirostris. Hodgson.

Musarichi, H. (Jerdon). Inhabits India generally.

Sub-genus ANTHUS, Auct.

A. similis, Jerdon (*Ill. Ind. Orn.* pl. 45).

SYN. Agrodoma similis, Jerdon, Madr. Journ. XI. 35.

Inhabits Nilgiris: N. W. Himalaya.

A. Rickardi, Vieillot (*Zool. Journ.* Vol. pl. 14). Inhabits Europe, Asia, and N. Specimens from the vicinity of Calcutta.

A. rufulus, Vieillot.

SYN. A. agilis apud Jerdon (nec Sy
A. malayensis, Eyton.
A. pallescens apud Su
A. pratensis of Sun
Slender Lark,

Rugail, H. (Jerdon); *Lancha-lancha*, or *Hamba Puyu*, Sum. Inhabits India generally and Malay countries.

A. striolatus, Blyth, J. A. S. XVI. 435.

SYN. A. pelopus (?), Hodgson, G. R. Gray, Brit. Mus. Catal.

Inhabits Himalaya, S. India.

A. montanus, Jerdon, J. A. S. XVI. 435.

SYN. A. rufescens apud Jerdon, Catal.

Inhabits Nilgiris.

A. campestris (*Pl. Enl.* 661).

SYN. Alauda campestris, L.
A. rufescens, Bechstein, Temminck.
A. rufulus apud Jerdon, Catal.

Chillu, H. (Jerdon). Inhabits Europe, Asia, N. Africa. Specimens from near Midnapur.

A. pratensis (*Pl. Enl.* 661, f. 2).

SYN. Alauda pratensis, L.

Inhabits Europe, Asia, N. Africa.

A. cervinus (Denon's Egypt, *Hist. Nat.* pl.).

SYN. Motacilla cervina, Pallas.
Anthus rufogularis, Brehm.
A. aquaticus ? apud Blyth, J. A. S. XVI. 437.

Inhabits S. E. Himalaya; N. Europe; N. frica.

Genus NEMORICOLA, Blyth.

N. indica (Vaill. *Ois. d' Afr.* t. 179).

SYN. Motacilla indica, Gmelin.
M. variegata, Vieillot (nec Stephens).

Mhamula, H. (Jerdon). *Nyet Rahat*, Aracan. Inhabits India generally; Burmah; alayan peninsula; Sumatra. Vicinity of alcutta at all seasons.

Genus MOTACILLA, L. (as restricted).

M. maderaspatana, Brisson (nec Linnæus; aill. *Ois. d' Afr.* t. 184).

SYN. M. maderaspatensis, Gmelin.
M. maderas et M. variegata, Stephens (nec Vieillot).
M. picata, Franklin.
Pied Wagtail, Latham.

Inhabits Hindustan generally; Rajmahl; arjiling: never in Lower Bengal.

M. alba L. (*Pl. Enl.* 652).

SYN. M. albida et M. cinerea, Gmelin.

Inhabits Europe and W. Asia; Afghanistan ? ery rare in the British Islands).

M. *dukhunensis* Sykes, P. Z. S. 1832, p. 91.

[illegible] M. alba apud Jerdon.

[illegible], H. (Jerdon). Inhabits N. W. Cenal, [illegible]. Afghanistan ?

[illegible] *luzonensis*, Scopoli.

SYN. M. alba, var. γ, Latham.
M. leucopsis, Gould, P. Z. S. 1837, p. 78.
M. alboides, Hodgson, As. Res. XIX. 190.

Khanjan, H. Inhabits Bengal; Nepal; Philippines.

M. boarula, L (*Pl. Enl.* 18, f. 1; Edwards, pl. 259).

SYN. M. Sulphurea, Bechstein.

Inhabits Europe, Asia and its Archipelago, Africa, and Australia. Specimen in summer dress, from Masuri.

Genus BUDYTES, Cuvier.

B. citreola.

SYN. Motacilla citreola, L.
M. scheltobriusk, Lepech.
B. calcaratus, Hodgson, As. Res. XIX. 190.

Zurcha, Kabul. Inhabits Asia generally, and E. Europe: Calcutta and Himalaya.

B. viridis (Brown's 'Illustrations,' pl. 33,—).

SYN. Motacilla viridis, Scopoli.
M. bistrigata, Raffles.
B. beema, Sykes.
B. flava (?) et neglecta apud Jerdon.
Wagtail Lark, Latham (young female).

Pilkya, H.; *Bessit*, Java. Inhabits India generally and Malay countries; S. Europe? N. Africa ?

B. melanocephala, Sykes, P. Z. S. 1823, p. 90; also of Lichtenstein ? Inhabits S. E. Europe; W. and Middle Asia; Hindustan.

Fam. SPHENURIDÆ.

Genus MEGALURUS, Horsfield.

M. palustris, Horsfield (P. C. 65, f. 2); . A. S. XIII. 372.

SYN. Malurus marginalis, Reinwardt.

Larri-angon, Jav. Inhabits Bengal; Tippera; Arracan; Java.

Genus SPHENURA, Lichtenstein.

Sph. striata (J. A. S. XIII. 373).

SYN. Megalurus ? striatus, Jerdon, Madr. Journ. XIII. 169 (the female).
Dasyornis locustelloides, Blyth, J. A. S. XI. 602.

Inhabits Bengal; S. India.

Genus SPHENÆACUS (?), Strickland.

Sph. (?) Burnesii.

SYN. Eurycercous Burnesii, Blyth, J. A. S. XII. 374.

Inhabits Sindh.

Genus DUMETIA, Blyth.

D. hyperythra.

SYN. Timalia hyperythra, Franklin.

Inhabits Central India.

D. Albogularis.

Syn. Malacocercus (?) albogularis, Blyth, J. A. S. XVI. 453.
Timalia hyperythra apud Jerdon, Catal.
Shah Dumri, H. ? (Jerdon).

Inhabits S. India; Ceylon.

Genus MALACOCERCUS, Swainson.

M. nipalensis.

Syn. Timalia nipalensis vel. leucotis, et T. pellotis, Hodgson, As. Res. XIX. 182.

Inhabits Nepal.

M. bengalensis (Edwards, pl. 184, badly coloured).

Syn. Merula bengalensis, Brisson.
Turdus canorus, L.
Pastor terricolor, Hodgson, J. A. S. V. 771.

Sat Bhai ('seven brothers'), H.: *Chatarrhea*, B. Inhabits Bengal; Nepal; Assam; Deyra Doon; Ceylon.

M. malabaricus Jerdon (*Ill. Ind. Orn.*, art. M. *griseus*).

Syn. M. Somervillei apud Jerdon, Catal.

Jungli Kur or *Kayr*, H. (Jerdon). Inhabits Malabar; sides of Nilgiris.

M. griseus (Jerdon's *Ill. Ind. Orn.*, pl. 19).

Syn. Turdus griseus, Latham.

Keyr, H.: *Chinda*, or *Sida*, Telugu: *Kullu Kooravi* ('Hedge-bird'), Tamool: *Kuliyan*, Malayalum (Jerdon). Inhabits Carnatic, and its immediate vicinity.

M. rufescens, Blyth, J. A. S. XVI. 453. Inhabits Ceylon.

M. Malcolmi (Hardwicke's *Ill. Ind. Zool.*

Syn. Timalia Malcolmi, Sykes.
Garrulus albifrons, (Gray and Hardw.)
Pale-eared Thrush, Latham.

Ghoghoye, H.: *Gougya*, Can.: *Kokutti*; Mahr. (Jerdon). Inhabits S. India: Cawnpore district.

M. subrufus, Jerdon.

Syn. Timalia subrufa, Jerdon, Catal.
T. pœcilorhyncha, de la Fresnaye.

Inhabits S. India: Wynaad, and along the margins of the W. Ghats.

M. Earlei, Blyth, J. A. S. XIII. 369.

Syn. M. geochrous, Hodgson.

Inhabits Bengal; Nepal; Tippera.

M. caudatus.

Syn. Cossyphus caudatus, Dumeril.
Megalurus isabellinus, Swainson, 2¼ cent.
Timalia chatarrhæa, Franklin.

Dumri, H.; *Huni*, Tam.? (Jerdon); *Hedo*, and *Laila*, Sindh. Inhabits India generally.

Genus DRYMOICA, Swainson.

Dr. criniger.

Syn. Suga criniger, Hodgson, As. Res. XIX, 183.

Inhabits Himalaya.

Dr. sylvatica.

Syn. Prinia sylvatica, Jerdon, Madr. Journ. XI. 4.

Inhabits Nilgiris.

Dr. robusta, Blyth, J. A. S. XVIII. Inhabits Ceylon. Specimen presented by E. L. Layard, Esq. differs from *Dr. sylvatica* in its darker shade of colour above, and larger and stronger bill and legs, which last appear to have been of a deep reddish brown colour: the flanks and sides of the breast are duskyish.

Dr. neglecta.

Syn. Prinia neglecta, Jerdon, Madr. Journ. XIII. pt. II, 130.
Dr. sylvatica of Mednapur apud Blyth, J. A. S. XVI. note to p. 459.

Inhabits Central India. Specimen procured near Mednapur differs from *Dr. sylvatica* in its more rufescent tinge throughout, the wingfeathers being margined with dull rufous; and the flanks are largely and deeply tinged with brown, extending up the sides of the breast.

Dr. ——— ? Inhabits Java. A. specimen presented by the Batavian Society (1845). is very like *Dr. sylvatica*, but smaller, with more conspicuously whitish lores and throat. Vide J. A. S., XVI. 459.

Dr. Jerdoni, Blyth, J. A. S. XVI. 459. Inhabits S. India.

Dr. inornata.

Syn. Prinia inornata, Sykes, P. Z. S. 1832. p. 89.

Inhabits Hindustan generally; S. India; Ceylon. This Ceylon race is darker above, especially on the crown, the lores and throat conspicuously whitish, as in Dr. robusta.

Dr. Franklinii.

Syn. Prinia Franklinii, Blyth, J. A. S. XIII. 376.
Pr. macroura, Franklin, P. Z. S. 1831. p. 118.
Pr. fusca, Hodgson, P. Z. S. 1845, p. 29.
Sylvia longicaudata (?), Tickell, J. A. S. II. 576.

Inhabits Bengal; Nepal; Arracan.

Dr. Buchanani, Blyth, J. A. S. XIII. 376.

Syn. Prinia rufifrons, Franklin (nec Ruppell).
Pr. brunnifrons, Hodgson, An. Mag. N. H. 1845, p. 29.
Sylvia longicauda, var. A (?) Latham.

Inhabits Nepal; Upper Bengal; S. India.

Dr. lepida, Blyth, J. A. S. XIII, 376; XVI. 460. Inhabits margins of sand-deposits of rivers in Bengal: also Sindh.

Genus PRINIA, Horsfield.

Pr. Hodgsonii, Blyth, J. A. S. XIII. 376.

SYN. Pr. gracilis apud Jerdon (nec Franklin, nec Malurus gracilis, Ruppell).

Inhabits Nepal; S. India.

Pr. gracilis, Franklin, P. Z. S. 1831, p. 119. Inhabits Central India.

Pr. rufescens, Blyth, J. A. S. XVI. 456. Inhabits Arracan.

Pr. socialis, Sykes, P. Z. S. 1832, p. 89.

SYN. Foodkey Warbler, Latham.

Inhabits S. India.

Pr. Stewarti, Blyth, J. A. S. XVI. 455.

SYN. Sylvia kalaphutki, B. Ham. MS.
Flaxen Warbler, var A., Latham.

Inhabits Upper Provinces of Bengal Presidency.

Pr. flaviventris.

SYN. Orthotomus flaviventris, Ad. Delessert.

Inhabits Nilgris? Bengal Sundarbuns; Tenasserim; Malacca.

Genus NEORNIS, Hodgson.

N. flavolivacea, Hodgson, J. A. S. XIV. 590 (the young).

SYN. Drymoica brevicaudata, Blyth. J. A. S. XVI, 459 (the adult).

Inhabits Nepal; Darjiling.

Genus ORTHOTOMUS, Horsfield.

O. longicauda.

SYN. Motacilla longicauda et M. sutoria, Gmelin.
Sylvia guzuratta, Latham.
S. ruficapilla, Hutton, J. A. S.
Orthotomus Bennetii, et O. lingoo, Sykes.
O. sphenurus, Swainson, 2¼ cent.
O. sutoria and O. patia, Hodgson, P. Z. S. 1845, p. 29.

Tuntuni, Beng. Inhabits India generally; Ceylon; Burmese countries; Malayan peninsula.

O. edela, Temminck.

SYN. Edela ruficeps, Lesson.
Motacilla sepium apud Raffles.

Kachichi, Malay. Inhabits Malayan peninsula; Sumatra.

O. cineraceus, Blyth, J. A. S. XIV. 589. Inhabits Malayan peninsula.

Genus HORIETES, Hodgson.

H. brunnifrons, Hodgson, J. A. S. XIV. 585.

SYN. H. schistilatus, Hodgson, P. Z. S. 1845 p. 30.
Nivicola schistilata, Hodgson, J.A.S. XIV. 586.

Inhabits S. E. Himalaya, near the snow region.

Genus CISTICOLA, Lesson.

C. cursitans (Jerdon's *Ill. Ind. Orn.*, pl. 6).

SYN. Prinia cursitans, Franklin.

Inhabits India generally. Not satisfactorily distinct from B. schœnicola.

C. omalura, Blyth, J. A. S. XVIII. Inhabits Ceylon.

Genus PELLORNIUM, Swainson.

P. ruficeps, Swainson.

SYN. P. olivaceum, Jerdon.
Cinclidia punctata, Gould.
Megalruus ruficeps, Sykes.

Inhabits Nepal; S. India; Tenasserim provinces.

Genus TURDIROSTRIS, A. Hay.

T superciliaris, A. Hay, *Madr. Journ.* XIII. pt. 2, 163. Inhabits Malayan peninsula.

Genus POMATORHINUS, Horsfield.

P. hypoleucos, Blyth, J. A. S. XIV. 599.

SYN. Orthorhinus hypoleucos, Blyth (the young), J. A. S. XIII. 371.

Inhabits Arracan.

P. erythrogenys, Vigors (Gould's 'Century.' pl, 55). Inhabits Himalaya.

P. schisticeps, Hodgson, *As. Res.* XIX, pt. 1. p. 181. Inhabits S. E. Himalaya; Sylhet; Tippera; Arakan.

P. leucogaster, Gould, P. Z. S. 1837, p. 137.

SYN. P. olivaceus, Blyth, J. A. S. XVI. 451.
P. montanus of Assam apud Horsfield, P. Z. S. 1839, p. 166.

Inhabits Deyra Doon; Nepal; Assam; Tenasserim provinces.

P. melanurus, Blyth, J. A. S. XVI. 451. Inhabits Ceylon.

P. Horsfield, Sykes, P. Z. S. 1832, p. 89. Inhabits Peninsula of India.

P. Phayrei, Blyth J. A. S. XVI. 452. Inhabits Arracan.

P. ferruginosus, Blyth, J. A. S. XIV. 597. Inhabits Sikkim.

P. ruficollis, Hodgson, *As. Res.* XIX. pt. 1, 182. Inhabits S. E. Himalaya.

P. montanus, Horsfield (*Zool. Res. in Java*, pl.). *Bokkrek*, Java. Inhabits Java.

Genus XIPHORHAMPHUS, Blyth.

X. superciliaris, Blyth, J. A. S. XII. 947.

SYN. Xiphorhynchus superciliaris, ibid J. A. S. XI. 175.

Inhabits Sikkim.

Genus TURDINUS, Blyth.

T. macrodactylus, J. A. S. XIII, 382.

SYN. Malacopteron macrodactylum, Strickland.
Brachypteryx albogularis, Hartlaub.

Tana, Malay. Inhabits Malayan peninsula.

Genus TRICHASTOMA, Blyth.

Tr. Abbotti.

SYN. Malacocincla Abbotti, Blyth, J. A. S. XIV. 601.

Inhabits Arracan.

Tr. olivaceum.

SYN. Megalopteron olivaecum, Strickland, Ann. Mag. N. H. 1847, p. 132.

Tr. Abbotti, var? Inhabits Malayan peninsula.

Tr. bicolor.

SYN. Brachypteryx bicolor, Lesson.
Malacopteron ferruginosum, Blyth, J. A. S. XIII. 333.

Inhabits Malayan peninsula ; Sumatra.

Tr. rostratum, Blyth, J. A. S. XI. 795. Inhabits Malayan peninsula.

Genus MALACOPTERON, Eyton.

M. majus, Blyth, J. A. S. XVI. 461. Inhabits Malayan peninsula.

M. magnum, Eyton, P. Z. S. 1849, p. 103. Inhabits Malayan peninsula.

Genus ALCIPPE, Blyth.

A. albogularis.

SYN. Setaria albogularis, Blyth, J. A. S. XIII. 385.

Inhabits Malayan peninsula.

A affinis (J. A. S. XIII. 384.)

SYN. Trichastoma affiane, Blyth, J. A. S. XI. 795.

Inhabits Malayan peninsula.

A. cinerea, Eyton.

SYN. Malacopteron cinereum, Eyton, P. Z. S. 1839, p. 103 ; J. A. S. XIII. 384.

Inhabits Malayan peninsula.

A. Phayrei, Blyth, J. A. S. XIV. 601.

Inhabits Arracan.

A. nipalensis.

SYN. Siva nipalensis, Hodgson, Ind. Rev. 1838, p. 80.

Inhabits S. E. Himalaya ; Arracan.

A. sepiaria.

SYN. Brachypterix sepiaria, Horsfield, Lin. Tr. XIII. 156.

Chichohan, Jav. Inhabits Java.

A. poiocephala.

SYN. Timalia poiocephala, Jerdon, Madr. Journ. XIII. 169.

Inhabits S. India.

A. atriceps.

SYN. Brachypteryx atriceps, Jerdon, Madr. Journ. X. 250.

Inhabits S. India.

A. (?) *striata.*

SYN. Timalia striata, Blyth, J. A. S. XI. 793.

Inhabits Malayan peninsula.

Genus MACRONOUS, Jardine and Selby.

M. ptilosus, J. and S. (*Ill. Orn.* pl. 150).

SYN. Timalia trichorros, Temminck.

Burong taal-uban, Malay. Inhabits Malayan peninsula.

Genus MIXORNIS, Hodgson.

M. gularis (Horsf. Zool. Res. in Java, pl.).

SYN. Timalia gularis, Horsfield.
Prinia pileata, Blyth, J. A. S. XI. 204.

Burong Puding, Malay. Inhabits Tenasserim provinces ; Malayan peninsula ; Java.

M. chloris, Hodgson, J. A. S. XI. 794.

SYN. M. ruficeps, Hodgson, P. Z. S. 1845. p. 23.
Motacilla rubicapilla (?), Tickell, J. A. S. II. 576.

Inhabits Sub-himalayan region ; Central India ? Tenasserim provinces.

Genus TIMALIA, Horsfield.

T. pileata, Horsfield (*Zool. Res. in Java*, pl.). *Dawit*, or *Gogo-stite*, Jav. Inhabits Bengal ; Nepal ; Assam ; Arracan ; Java.

T. nigricollis, Temminck.

SYN. T. erythronotus, Blyth, J. A. S. XI. 793.
Brachypteryx nigrogularis, Eyton.

Burong Tanah, Malay. Inhabits Malayan peninsula.

T. pectoralis, Blyth, J. A. S. XI. 793.

SYN. Malacopteron squamatum, Eyton.

Pampang, Malay. Inhabits Malayan peninsula.

T. erythroptera, Blyth, J. A. S. XI. 794.

SYN. T. pyrrhophæa, Hartlaub.
Brachypteryx acutirostris, Eyton.

Inhabits Malayan peninsula.

Genus CHRYSOMMA, Hodgson.

Chr. sinense (Jardine and Selby, *Ill. Orn.* pl. 119).

SYN. Parus sinensis, also Gotah Finch, and Emberiza calfat, Var. A., Latham.
Timalia hypoleuca, Franklin.
T. Horsfield, Jardine and Selby.
Pyctoris rufifrons, Hodgson, P. Z. S. 1845, p. 24.
Timalia bicolor, Lafresnaye.

Gulchasm; also *Shukar Dumri*, H.? (Jerdon). Inhabits India generally; China?

Genus STACHYRIS, Hodgson.

St. nigriceps, Hodgson, J. A. S. XIII. 378 P. Z. S. 1845, p. 22. Inhabits S. E. Himalaya.

St. pyrrhops, Hodgson, J. A. S. XIII. 379 P. Z. S. 1845, p. 23 (there spelt *pyrops*) Inhabits Nepal.

St. ruficeps, Blyth, J. A. S. XVI. 452. Inhabits Sikkim.

St. chrysæa, Hodgson, J. A. S. XIII. 379 P. Z. S. 1845, p. 23. Inhabits S. E. Himalaya; Arracan.

Fam. LANIADÆ.

Genus GAMPSORHYNCHUS, Blyth.

G. rufulus, Blyth, J. A. S. XIII. 370. Inhabits Terai region of the S. E. Himalaya Arracan, &c.

Genus THAMNOCATAPHUS, Tickell.

Th. picatus, Tickell, J. A. S. XVIII. Inhabit Darjiling.

Genus LANIUS, L.

L. lahtora, (Hardwicke's *Ill. Ind. Zool.*)

Syn. Collurio lahtora, Sykes.
Lanius excubitor, var C., Latham.
L. burra, Gray, Hardw., Ill. Ind. Zool.

Dudia lahtora, ('Milky Shrike'), H. Inhabits India generally (nec Lower Bengal).

L. schach, *L.*

Syn. L. beutet, Horsfield.

Burong Papa, or Terip api Malay; *Bentet*, Java. Inhabits China; Philippines; Java.

L. erythronotus (Gould's 'Century,' pl. 12, f. 2).

Syn. Cullurio erythronotus, Vigors.

Inhabits N. W. Himalaya.

L. caniceps, Blyth, J. A. S. XV. 302.

Syn. C. erythronotus of S. India, Auct.

Inhabits Indian peninsula; Sindh; Upper Bengal.

L. nigriceps.

Syn. Cullurio nigriceps, Franklin.
Lanius nasutus, Scopoli.
L. antiguanus, Latham.
L. tricolor, Hodgson, Ind. Rev. 1837.
Indian Shrike, Latham.

Inhabits Bengal; Kutak; Nepal; Assam; Arracan.

L. tephronotus.

Syn. Cullurio tephronotus, Vigors, P. Z. S. 1831, p. 43.
Lanius nipalensis, Hodgson, Ind. Rev. 1837, p. 445.
Grey-backed Shrike, Latham.

Inhabits Bengal; Nepal; Assam; Arracan.

L. superciliosus, L. (Vaill. *Ois. d' Afr.* pl. 66, f. 2.)

Syn. L. collurioides, Lesson.

Bengal variety.—

L. cristatus, L.
L. phænicurus, Pallas.
L. rutilus, var A, and L. superciliosus, var A. Latham.
L. melanotis, Valenciennes.
L. ferrugiceps, Hodgson, Ind. Rev. 1837, p. 446.

Sindh variety.

L. arenarius, Blyth, J. A. S. XV. 304.

Philippine variety?

L. lucienensis, Katkati. Beng.

Inhabits all S. E. Asia and its islands, except on elevated land.

L. tigrinus, Drapiez, *Dict. Class. d' Hist. Nat.*

Syn. L. magnirostris, Lesson, in Belanger's Voyage.
L. strigatus, Eyton, P. Z. S. 1839, p. 103.

Serara, Malay. Inhabits Malay countries.

L. Hardwickii, Vigors (Gould's 'Century,' pl. 12, f. 1).

Syn. Collurio Hardwickii, Vigors.
Bay-backed Shrike, Latham.

Pichanuk, H. Inhabits India generally (nec Bengal alluvium).

L. hypoleucos, Blyth, J. A. S. XVII. 249. Inhabits Tenasserim provinces.

Genus TEPHRODORNIS, Swainson.

T. sylvicola, Jerdon, *Madr. Journ.* X. 236. *Phari latora*, H. Inhabits S. India.

T. pelvica.

Syn. Tenthaca pelvica, Hodgson, Ind. Rev. 1837, p. 447.

Inhabits Nepal; Arracan.

T. gularis. (Tem. *Pl. Col.* 256. f. 1.)

Syn. L. virgatus, Temminck.
Lanius gularis, Raffles.

Baron Baron, Malay. Inhabits Malay countries.

T. pondiceriana. (Hardw. *Ill. Ind. Zool.*)

Syn. Muscicapa pondiceriana, Gmelin.
M. philippensis of India, Latham.
Lanius keroula, Gray.
L. muscipetoides, Franklin.
L. griseus, Tickell, J. A. S. II. 573.
L. sordidus, Lesson.
T. superciliosus, Swainson.
Tenthaca leucurus, Hodgson, Ind. Rev. 1837, p. 447.

Inhabits India generally.

T. affinis, Blyth, J. A. S. XVI. 473. Inhabits Ceylon.

T. grisola, Blyth, J. A. S. XII. 180.

Inhabits Penang; Java; Arracan; very rare in Lower Bengal.

Genus HEMIPUS, Hodgson.

H. obscurus (Horsfield's *Zool. Res. in Java.* pl.).

SYN. Muscicapa obscura, Horsfield.
M. hirundinaceus, Reinhardt.
Tephrodornis hirundinaceus, Swainson.

Inhabits Malay countries ; Tenasserim.

H. picata.

SYN. Musicapa picata, Sykes.
M. tyrannides, Tickell, J. A. S. II. 574.
M. hyrundinacea, apud Jerdon, Catal.
M. variegata (?), Linnæus.

Inhabits Arracan ; Central and S. India ; Ceylon.

H. capitalis.

SYN. Muscicapa ? capitalis, McClelland P. Z. S. 1839, p. 159.
H. picæcclor, Hodgson, P. Z. S. 1845, p. 33.

Inhabits Himalaya ; Assam.

Genus XANTHOPYGIA, Blyth.

X. leucophrys, Blyth, J. A. S. XVI. 123.

SYN. Musicapa xanthopygia, A. Hay, Madr. Journ. XI, 162 (the female).

Inhabits Malayan peninsula.

X. narcissina (Tem., *Pl. Col.* 577, f. 1).

SYN. Muscicapa narcissina, Temminck.
Z. chrysophrys, Blyth, J. A. S. XVI. 121.

Inhabits China ; Japan.

Fam. BRACHYURIDÆ.

Genus PITTA, Vieillot.

P. cærulea (Tem. *Pl. Col.* 217).

SYN. Myiothera cærulea, Raffles.
Pitta gigas, Temminck.

Inhabits Malayan peninsula : Sumatra.

P. nipalensis.

SYN. Paludicola nipalensis, Hodgson, J. A. S. VI. 103.
Pitta nuchalis, Blyth, J. A. S. XI. 188.

Inhabits Himalaya ; Arracan.

P. cucullata, Hartlaub (*Ann. Mag. N. H.* XIII. pl. 20.)

SYN. P. nigricollis, Blyth, J. A. S. XII. 960.
P. rodogaster, Hodgson, J. A. S. XII. 961 (the young.)

Inhabits Nepal ; Assam ; Malayan peninsula.

P. cyanoptera, Temminck (*Pl. Col.* 218).

SYN. P. malaccensis apud Blyth, J. A. S. XII. 960.

Inhabits Arracan ; Tenasserim provinces ; Malayan peninsula.

P. triostegus (Gould's 'Century,' pl. 23).

SYN. Turdus triostegus, Sparrman.
T. malaccensis, Scopoli.
P. superciliaris et abdominalis, Wagler.
P. bengalensis, Stephens.
P. brachyura of India, auctorum.

Inhabits India generally, from the sub-Himalayan region to Ceylon inclusive : never on the eastern side of the Bay of Bengal.

P. erythrogastra, Tem. (*Pl. Col.* 212). Inhabits Philippines.

P. granatina, Tem. (*Pl. Col.* 506).

SYN. P. coccinea, Eyton, P. Z. S. 1839, P. 104.

Inhabits Malayan peninsula.

P. cyanea, Blyth, J. A. S., XII. 1008 ; XVI. 153. Inhabits Arracan ; Tenasserim pro-

P. cyanura (*Pl. Enl.* 355).

SYN. Corvus cyanurus, Gmelin.
Myiothera affinis, Raffles.

Sintar, Sum. : *Punglor*, Jav. Inhabits Malayan peninsula ; Sumatra.

Genus HYDROBATA, Vieillot.

H. asiatica (Gould's 'Century,' p. 24).

SYN. Cinclus asiaticus, Swainson.
C. Pallasii apud Gould.

Inhabits Himalaya.

Genus TROGLODYTES, Cuvier.

Tr. nipalensis, Hodgson, J. A. S. XIV. 589.

SYN. Tr. subhemalayanus, Hodgson, Gray.

Inhabits N. W. Himalaya ; Nepal.

Tr. punctatus, J. A. S. XIV. 589.

Inhabits Sikkim.

Genus EUPETES, Temminck.

Eu. macrocercus, Tem. (*Pl. Col.* 516). Inhabits Malayan peninsula.

Genus ENICURUS, Temminck.

E. ruficapillus, Tem. (*Pl. Col.*). Inhabits Java.

E. maculatus, Vigors, (Gould's 'Century,' pl. 27).

SYN. E. fuliginosus, Hodgson (the young).

Inhabits Himalaya.

E. schistaceus, Hodgson, *As. Res.* XIX, 191. Inhabits S. E. Himalaya ; Tenasserim provinces.

E. immaculatus, Hodgson, *As. Res.* XIX. 190, J. A. S. XVI. 157. Inhabits Arracan. Rare in Nepal.

E. frontalis, Blyth, J. A. S. XVI. 156. Inhabits Malayan peninsula.

E. scouleri, Vigors (Gould's 'Century,' pl. 28). Inhabits Himalaya ; rare to the N. W.

Fam. MERULIDÆ.

Subfam. MERULINÆ.

Genus MYIOPHONUS, Temminck.

M. Temminckii, Vigors (Gould's 'Century,' pl. 21).

SYN. M. nitidus, Gray.

Inhabits Himalaya ; Assam ; Arracan.

M. Horsfieldi, Vigors (Gould's 'Century,' pl. 20). Inhabits Nilgiris (nec Himalaya).

Genus TURDUS, L.

Sub-genus ZOOTHERA, Vigors.

Z. monticola, Vigors (Gould's 'Century,' pl. 22). Inhabits Himalaya.

Z. marginata, Blyth, J. A. S. XVI. 141. Inhabits Arracan.

Sub-genus OREOCINCLA, Gould.

O. nilgiriensis, Blyth, J. A. S. XVI. 181. Inhabits Nilgiris.

O. mollissima, Blyth, J. A. S. XI. 188 ; XVI. 141.

SYN. O. rostrata, Hodgson, nn. Mag. N. H. 1845' f. 326.

Inhabits Himalaya.

O. dauma, (Gould's *B. E.* pl.),

SYN. Turdus dauma, Latham.
T. Whitei, Eyton.
T. doratus ?
O. parvirostris, Gould, P. Z. S. 1837, p. 136.

Inhabits Himalaya, Nilgiris: migrating to the plains in winter. Rare in Europe.

O. spiloptera, Blyth, J. A. S. XVI. 142. Inhabits Ceylon.

Sub-genus TURDUS.

T. viscivorus, L. (*Pl. Enl.* 439 ; Gould's *B. E.* pl. 77).

SYN. T. major, Brisson.

Inhabits Europe ; N. W. Himalaya.

T. Naumanni (?), Temminck (Gould's *B. E.* pl. 9).

SYN. T. dubius, Naumann.

Inhabits E. Europe N. Asia ; very rare in the Himalaya.

T. atrogularis, Natterer (Gould's *B. E.* pl. 75).

SYN. T. Bechsteini, Naumann.
T. dubius, Bechstein.

Inhabits N. Asia ; Himalaya ; Tippera.

T. ruficollis, Pallas.

SYN. (Perhaps a variety of Galerida cristata of which some specimens are partially rufous-tailed.)

Inhabits N. Asia ; Himalaya.

T. javanicus (?) Horsfield, *Linn. Tr.* XIII. 184).

SYN. T. concolor, (?) Temminck (Pl. Col).
T. rufulus, Drapiez, Dict. Class.
T. modestus, Eyton, P. Z. S. 1839, p. 103.

Inhabits Arracan ; Malayan peninsula ; Java ?

Subgenus MERULA.

M. vulgaris, Ray, Leach (Gould's *B. E.* pl. 72).

SYN. Turdus merula, L.

nabits Europe ; N. Africa ; Madeira ; W. Asia ; Afghanistan ; China (Chusan).

M. boulboul (Gould's 'Century,' pl. 14).

SYN. Lanius boulboul et Turdus persicus (?,) Latham.
T. pæcilopterus, Vigors.

Inhabit Himalaya.

M. simillima.

SYN. Turdus simillimus, Jerdon, Madr. Journ., X. 253.

Inhabits Nilgris.

M. nigropileus.

SYN. Turdus nigropileus, de la Fresnaye ; Ad. Delessert Voyage dans l'inde.

Inhabits S. India.

M. albocineta (Royle's *Ill. Him. Bot.* pl. 8. f. 3).

SYN. Turdus albocinctus et T. albicollis, Royle.
T. collaris, Sorel.

Inhabits Himalaya.

M. castanea, Gould P. Z. S. 1835, p. 185.

Inhabits Himalaya.

M. Wardii (Jerdon's *Ill. Ind. Orn.* pl. 8).

SYN. Zoothera melanoleuca, Hartlaub.
Oreocincla ? micropus, Hodgson (female).

Inhabits Himalaya ; S. India.

Sub-genus GEOCICHLA, Kuhl.

G. unicolor.

SYN. Turdus unicolor, Tickell, Gould.

Inhabits Himalaya.

G. dissimilis, Blyth, J. A. S. XVI. 144.

SYN. Calcutta Thrush, Latham.

Inhabits Bengal (during cold season.)

G. citrina (Tem. *Pl. Col.* 445).

SYN. Turdus citrinus, Latham.
T. Macei, Vieillot.
T. lividus, Tickell, J. A. S. II. 577.
T. rubeculus, apud Horsfield, P. Z. S. 1839, p. 161.

Inhabits Bengal ; Nepal ; Assam ; Arracan C. India.

G. cyanotus (J. and S., *Ill. Orn.*, 1st series, pl. 46).

SYN. Turdus cyanotus, Jardine and Selby.

Inhabits Indian peninsula.

G. innotata, Blyth, J. A. S. XVI, 146. Inhabits Malayan peninsula ; Nicobars.

Sub-genus PETROCINCLA, Vigors.

P. erythrogastra (Gould's 'Century,' pl. 13 ; J. and S. *Ill. Orn.*, 1st series, pl. 129).

SYN. Turdus erythrogaster, Vigors.
Petrocincla rufiventris, Jardine and Selby.
Petrocossyphus ferrugineoventris, Lesson.

Inhabits Himalaya.

P. cyaneus (*Pl. Enl.* 250 ; Edwards, pl. 18),

SYN. Turdus cyaneus, L.
T. solitarius, Gmelin.
Merula cærulea, Brisson.
P. longirostris, Blyth, J. A. S. XVI. 150.

Inhabits Europe; N. Africa; W. Asia; Kashmir; Punjab; Sindh. The Indian variety *P. paudoo* (the male), and *P. maal* (the female), Sykes: *Turdus solitarius*, var. A Latham is merely somewhat deeper-colored, the females especially, which are somewhat differently marked on the under-parts. The bill also is generally smaller. Inhabits Hindustan; S. India.

P. affinis, Blyth, J. A. S. XII. 177. Inhabits Sikkim; Butan; Assam; Sylhet; Tippera; Arracan; Tenasserim.

P. maillensis (*Pl. Enl.* 636).

SYN. Turdus manillensis, Gmelin.
T. olivaceus (?), Boddaert.

Inhabits Philippines; China.

Sub-genus MONTICOLA, Brehm.

M. cinclorhyncha (Gould's 'Century, pl. 19).

SYN. Petrocincla cinclorhyncha, Vigors.
Petrophila cyanocephala, Swainson.
Black collared Thrush, var. A. Latham.

Inhabits hilly parts of India generally, keeping to the forests: very rare in Lower Bengal in the seasons of passage.

Genus LUSCINIA, (Antiq.) L. (1735), G R. Gray.

L. philomela, Bonap (*Pl. Enl.* 615, f. 2).

SYN. Moticilla luscinia, L.
Sylvia luscinia, Lath. Tem. (nec S. philomela, Tem.)

Bulbul bosta, H.: *Bulbul-i-hazar dastan*, Pers. Inhabits Europe; N. Africa; W. Asia; common in Persia, but only known as a cage bird in Afghanistan.

Subfam. SAXICOLINÆ.

Genus THAMNOBIA, Swainson.

Th. cambaiensis.

SYN. Sylvia cambaiensis, Latham.
Saxicoloides erythrurus, Lesson (the female).

Inhabits Upper and Central India.

Th. fulicata (*Pl. Enl.* 185, f. 1).

SYN. Motacilla fulicata, L.
Ænanthe ptygmatura, Vieillot.
Th. leucoptera, Swainson.
Rusty-vented Thrush, and the female.—Sylvia fulicata, var. a, Latham.

Kulchuri, H. (Jerdon). Inhabits S. India; Ceylon; Philippines?

Genus KITTACINCLA, Gould.

K. macrourus (Vaillant, pl. 114).

SYN. Turdus macrourus, Gmelin.
T. tricolor, Vieillot.
Gryllivora longicauda, Swainson.

Shama, H.; *Abbeka*, H. (Jerdon): *Larwa*, Jav. Inhabits India generally (nec Lower Bengal); Ceylon; Burmese and Malay countries.

Genus COPSYCHUS, Wagler.

C. mindanensis.

SYN. Turdus mindanensis, Gmelin.
Lanius musicus, Raffles (nec Turdus amœnus, Horsfield).
Gryllivora magnirostra et Gr. rosea, Swainson (vide J. A. S. XVI. 139).

Choche, Malay; *Moorai*, or *Moorai Kichou*, Sum. Inhabits Malay countries.

C. saularis (Edwards, pl. 181).

SYN. Gracula saularis, L.
Gryllivora intermedia, Swainson.
Dahila docilis, Hodgson, As. Res. XIX. 189.

Dayal, B.; *Dayyur* or *Deyr*, H. (Jerdon): *Polichia*, Cingh: *Thabeitgyee*, Arracan. Inhabits Bengal; Nepal; India generally; Arracan; Tenasserim. The head and back of female invariably ashy.

Var. Gr. brevirostra (?), Swainson.

Inhabits Ceylon. The head and back of shining black, nearly as in the male.

Genus NOTODELA (?) Lesson.

N. (?) *leucura*, J. A. S. XVI. 188.

SYN. Muscisylvia leucura, Hodgson, P. Z. S. 1845, p. 27.

Inhabits Musari; Nepal.

Genus GRANDALA, Hodgson.

Gr. cælicolor, Hodgson, J. A. S. XII. 447. Inhabits Simla; Nepal: near snowy region.

Genus SAXICOLA, Bechstein, (*Jerka*, Sindh).

S. opistholeuca, Strickland.

SYN. S. leucura apud Blyth, J. A. S. XVI. 137.

Inhabits Upper Hindustan; Sindh.

S. picata, Blyth, J. A. S. XVI. 131. Inhabits Upper Hindustan; Sindh.

S. leucomela (*Pl. Col.* 257, f. 3.

SYN. Muscicapa leucomela et. M. melanoleuca, Stephens.

Inhabits S. Europe; N. Africa; W. Asia; Upper Hindustan; Sindh.

S. atrogularis, Blyth, J. A. S. XVI. 130-1. Inhabits Upper Hindustan; Sindh.

S. œnanthe (*Pl. Enl.* 554).

SYN. Motacilla œnanthe, L.

Inhabits Europe, W. Asia; Upper Hindustan.

Genus CYANECULA, Brehm.

C. suecica (*Pl. Enl.* 361, f. 2, and 610. f. 1, 2, 3).

Syn. Motacilla suecica, L.
Sylvia cæruligula, Pallas.
S. sperata, var. A, Latham (the female).
Blue-necked Warbler, Latham.

Husaini Pidda, H. : *Dumbuk*, Kabul. Inhabits N. Europe; India generally: very abundant in Lower Bengal.

Genus RUTICILLA, Brehm.

R. frontalis (Gould's *Century*, pl. 26, f. 2).

Syn. Phœnicura frontalis, Vigors.

Inhabits Himalaya generally.

R. erythrogastra.

Syn. Sylvia erythrogastra, Guldenstadt.
Muscicapa aurorea, Pallas.
Phœnicura Reevesii, Gray.

Inhabits N. and M. Asia, from the Caucasus to Japan; Nepal; Assam.

R. phœnicurus (*Pl. Enl.* 351, f. 2).

Syn. Motacilla phœnicura, L.
Phœnicura ruticilla, Swainson.
R. tythys of Afghanistan, apud Hutton, J. A. S. XV. 780.

Inhabits Europe; W. Asia; and variety in Afghanistan and Sindh.

R. leucoptera, Blyth, J. A. S. XII. 962; XVI. 134. Inhabits Malayan peninsula; Java.

R. indica, Blyth, (Jardine and Selby, *Ill. Orn.* pl. 86, f. 3).

Syn. Phœnicura atrata apud Jardine and Selby.

Thirt bira (i. e. 'Shaker'). H. (Jerdon). Inhabits India generally.

R. cæruleocephala (Gould's *Century*, pl. 26, f. 2).

Syn. Phænicura cæruleocephala, Vigors.

Inhabits Himalaya.

R. fuliginosa.

Syn. Phœnicura fuliginosa, Vigors, P. Z. S. 1831, p. 35.
Ph. plumbea, Gould, P. Z. S. 1835, p. 185.

Inhabits Himalaya.

R. leucocephala (Gould's *Century*, pl. 26, f. 2).

Syn. Phœnicura leucocephala, Vigors.
Sylvia erythrogastra, var. *a*. Latham.

Inhabits Himalaya.

Genus CALLIOPE, Gould.

C. pectoralis, Gould (*Icones Avium*). Inhabits Himalaya.

C. camtschatkensis (Lath. *Supp.*, pl. in frontispiece).

Syn. Sylvia camtschatkensis, Gmelin,
Motacilla calliope, Pallas.
Calliope Lathami, Gould.

Gangula, Nepal. Inhabits Asia. Common in Lower Bengal during the cold season; rare in C. India.

C. cyana.

Syn. Larvivora cyana, et L. brunnea (?). Hodgson, J. A. S. VI., 102.
Phœnicura superciliaris, Jerdon, Madr. Journ. XIII, 170.

Inhabits Himalaya chiefly: rare in Nilgiris: very rare and accidental in Lower Bengal during the seasons of passage.

Genus TARSIGER, Hodgson.

T. chrysœus, Hodgson, *Ann. Mag. N. H.* 1845, p. 198. Inhabits S. E. Himalaya.

Genus PRATINCOLA, Koch.

Pr. caprata (*Pl. Enl.* 235, f. 1. 2).

Syn. Motacilla caprata, L.
M. lucionensis, var *A*. Latham.
M. sylvatica (?, Tickell, J. A. S. II. 575.
Saxicola fruticola, Horsfield.
S. bicolor et S. erythropygya, Sykes.

Pidah or *Kala Pidah*, H.; *Lay khya*, Arracan; *Dechu*, Jav. Inhabits India generally (nec Lower Bengal); Arracan; Java.

Pr. rubicola (*Pl. Enl.* 678, f. 1).

Syn. Motacilla rubicola, L.

Inhabits Europe; N. Africa.

Pr. indica, Blyth, J. A. S. XVI, 129.

Syn. P. rubicola of India, auctorum.

Inhabits India generally.

Pr. leucura, Blyth, J. A. S. XVI. 447. Inhabits Sindh.

Pr. ferrea, Hodgson, J. A. S. XVI, 129. Inhabits Himalaya generally.

Genus IANTHIA, Blyth.

I. hyperythra, Blyth, J. A. S. XVI. 132. Inhabits Sikkim.

I. rufilatus, J. A. S. XVI. 132.

Syn. Nemura rufilatus, and the female—N. cyanura, Hodgson, P. Z. S. 1845, p. 27,
Erythaca Tytlerii (?), Jameson, Trans. Wern. Soc. (not described).
Motacilla cyanura (?). Pallas, the female.

Inhabits Himalaya generally; more numerous to the N. W.?

Genus ERYTHACA, (Antiq.) Cuv, G. R. Gray.

E. flavolivacea.

Syn. Ianthia flavolivacea, (Hodgson), J. A. S. XVI. 133, 774.
Nemura flavolivacea, Hodgson, P. Z. S. 1845, p. 37.

Inhabits Sikkim.

E. rubecula (*Pl. Enl.* 361, f. 1).

Syn. Motacilla rubecula, L.

Inhabits Europe; W. Asia (Trebizond).

Genus ERYTHROSTERNA, Bonap.

E. leucura (vide J. A. S. XVI. 474).

SYN. Muscicapa leucura, Gmelin.
M. parva of India, auctorum.
Saxicola rubeculoides, Sykes.
Synornis joulaimus, Hodgson, P. Z. S. 1855, p. 27.
White tailed Red-breast, and the young—probably Maculate Flycatcher, Latham.

Turra, H. Inhabits India generally; rare to the S.: extremely common in L. Bengal.

E. acornaus, (Hodgson).

SYN. Muscicapula acornaus of Nepal, J. A. S. XVI. 127.

Inhabits Himalaya.

E. pusilla, Blyth, J. A. S. XVIII.

SYN. Muscicapula acornaus of Central India, apud Blyth, J. A. S. XVI. 127.
Muscicapa poonensis apud Blyth, J. A. S. XI. 458.

Inhabits Central India.

Genus SIPHIA, Hodgson.

S. strophiata, Hodgson, *Ind. Rev.* 1837, p. 651. Inhabits Himalaya.

S. superciliaris.

SYN. Dimorpha superciliaris, Blyth, J. A. S. XI, 190 (altered to Muscicapula hyperythra, J. A. S. 885, and again by an oversight to M. rubecula, J. A. S. XII. 940).
D. (?) rubrocyanea, Hodgson, P. Z. S. 1845, p. 26.

Inhabits S. E. Himalaya.

S. (?) tricolor.

SYN. Digenea tricolor, Hodgson, P. Z. S. 1845, p. 46; J. A. S. XVI. 126.

Inhabits Himalaya.

S. (?) leucomelanura.

SYN. Digenea leucomelanura, Hodgson, P. Z. S. 1845, p. 26; J. A. S. 1845. XVI. 126.

Inhabits S. E. Himalaya.

Genus ANTHIPES, Blyth.

A. moniliger.

SYN. Dimorpha ? moniliger, Hodgson, P. Z. S. 1845, p. 26.
Niltava McGregoriæ, fœm (?), apud Hodgson, Ind. Rev. 1837, p. 650.
A. gularis, Blyth, J. A. S. XVI. 122,

Inhabits S. E. Himalaya; Arracan.

Genus MUSCICAPULA, Blyth.

M. melanoleuca, vide J. A. S. XVI, 137.

SYN. Muscicapa maculata apud Tickell, J. A. S. 11, 574.

Inhabits S. E. Himalaya; C. India; Arracan; Tenasserim provinces; Java.

M. superciliaris (Jardine's *Contrib. Orn.* 1848, pl.).

SYN. Muscicapa superciliaris, Jerdon, Madr. Journ. XI, 16.
Dimorpha albogularis, Blyth, J. A. S. XI, 190.
Muscicapa hemileucura, Hodgson, G. R. Gray.
Lucknow Flycatcher and Azure Warbler, Latham.

Inhabits Himalaya chiefly; C. and S. India.

M. sapphira (Tickell) Blyth, J. A. S. XII. 939; XVI, 473. (Jerdon's *Ill. Ind. Orn.* pl. 32). Inhabits Sikkim.

Genus CYORNIS, Blyth.

C. unicolor, Blyth, J. A. S. XII, 1007; XVI, 128. Inhabits Sikkim.

C. rubeculoides Gould's 'Century,' pl. 25).

SYN. Phœnicura rubeculoides, Vigors.
Niltava brevipes, Hodgson, Ind. Rev. 1837, p. 651.
Muscicapa rubecula, Swainson (the female).
Ætherial Warbler, Latham (and the female agrees with the supposed female of his Blue Indian Warbler).

Inhabits Himalaya; visiting the plains in the cold season, when not rare, in the vicinity of Calcutta: Arracan; Tenasserim.

C. banyumas (Horsfield's *Zool. Res. in Java*, pl.).

SYN. Muscicapa banyumas, Horsfield.
M. cantatrix, Temminck.

Inhabits Java: very rare in Nilgiris.

C. elegans.

SYN. Muscicapa elegans, Tem. apud Strickland.
M. hyacintha apud Tickell, J. A. S. II. 574.
C. Tickelliæ, Blyth, J. A. S. XII, 941.
Blue Indian Warbler ? Latham (vide J. A. S. XVI, 128.)

Inhabits Central (and W?) India.

C. ? (Allied to *Muscicapa pallipes*, Jerdon) *Madr. Journ.* XI, 15. Inhabits Sikim.

Genus OCHROMELA, Blyth.

Ochr. nigrorufa, J. A. S. XVI, 129.

SYN. Saxicola nigrorufa, Jerdon, Madr. Journ. X. p. 266.
Muscicapa rufula, la Fresnaye.

Inhabits summit of Nilgiris.

Genus NILTAVA, Hodgson. (*Niltouw*, Nepal).

N. grandis.

SYN. Chaitaris grandis, Blyth, J. A. S. XI. 189,
Bainopus irenoides, Hodgson, G. R. Gray.

Inhabits Sikkim.

N. sundara, Hodgson, *Ind. Rev.* 1837, p. 650. Inhabits Himalaya ; rare to the N. W.

N. McGregoriæ.

Syn. Phænicura McGregoriæ, Burton, P. Z. S. 1835, f. 152.
N. fuligiventer, Hodgson, Ind. Rev. 1837, p. 650 (the female only).
Dimorpha auricularis, Hodgson, J. A. S. XII. 240.
Leiothrix signata McClelland, P. Z. S. 1839, p. 163.
} The female.

Inhabits Himalaya ; Assam.

Genus CYANOPTILA, Blyth.

C. cyanomelanura, J. A. S. XVI. 125 (*Pl. Col.*).

Syn. Muscicapa melanops, Vigors.

Inhabits Java.

Genus STOPAROLA, Blyth.

St. melanops (Gould's 'Century,' pl. 6).

Syn. Muscicapa melanops, Vigors.
M. lapis, Lesson, Rev. Zool. &c. 1839, p. 104.
M. thalassina, Swainson (the female.
Verditer Flycatcher, Latham.

Nil Katkatea, Beng. Inhabits India generally ; visiting the plains in the cold season.

St.———? (Vide J. A. S. XVI. 125). Inhabits Java.

St. indigo.

Syn. Muscicapa indigo, Horsfield.

Inhabits Java.

St. albicaudata, Jerdon (*Ill. Ind. Orn.* pl. 14).

Syn. Muscicapa albicaudata, Jerdon, Madr. Journ, XI. 16.

Inhabits Nilgiris.

Genus MUSCICAPA, L.

Sub-genus BUTALIS, Boie.

B. terricolor, Hodgson, J. A. S. XVI. 120. Inhabits Nepal.

Subgenus HEMICHELEDON, Hodgson.

H latirostris.

Syn. Muscicapa latirostris, Raffles, Swainson,
M. poonensis, Sykes.

Zukki, H. (Jerdon). Inhabits India generally; common in Ceylon ; rare in L. Bengal : Malayan peninsula ; Sumatra.

H. fuliginosa, Hodgson, P. Z. S. 1845, p. 31, J. A. S. XVI. 119. Inhabits Himalaya.

H. ferruginea Hodgson, P. Z. S. 1845, p. 32. Inhabits S. E. Himalaya.

Genus ACANTHIZA, Vigors and Horsfield.

A.——? Inhabits Java ?

BRACHYPTERYX series.

Genus SYLVANIA, Blyth.

S. phœnicuroides, J. A. S. XVI. 135.

Syn. Brachypterus phœnicuroides, Hodgson, Gray's Catal.

Inhabits Himalaya.

Genus CALLENE, Blyth.

C. frontalis, Blyth J. A. S. XII. 1010. pl.), *ibid.* XVI, 186. Inhabits Sikim.

Genus BRACHYPTERYX, Horsfield.

Br. major.

Syn. Phænicura major, Jerdon, Madr. Journ. XIII. 170.

Inhabits Nilgiris.

Br. montana, Horsfield (*Zool. Res. in Java*, pl.). Inhabits Java.

Br. cruralis.

Syn. Calliope (?) cruralis, Blyth, J. A. S. XII. 933 ; XVI. 136.

Inhabits Sikkim.

Br. (?) *nigrocapitata.* Eyton, P. Z. S. 1839 p. 137. Inhabits Malayan peninsula.

Genus TESIA, Hodgson.

T. cyaniventer, Hodgson, J. A. S. VI. 101.

Syn. T. auriceps, Hodgson, J. A. S. X .137 474.
Saxicola ? olivea, McClelland, P. Z. S. 1839, 161.

Inhabits Nepal ; Sikim ; Assam.

T. castaneo-coronata.

Syn. Sylvia castaneo-coronata, Burton, P. Z. S 1835, p.
T. flaviventer, Hodgson, J. A. S. VI. 102

Inhabits Himalaya.

Genus PNOEPYGA, Hodgson.

Pn. squamata (Gould's *Icones Avium*).

Syn. Microura squamata, Gould.
Tesia rufiventer, T. albiventer, and T. concolor, Hodgson (varieties of colouring.

Inhabits Nepal ; Sikkim.

Pn. pusilla.

Syn. T. pusilla, Hodgson, J. A. S. XIV. 588.
T. squamata, small variety ?

Inhabits Nepal.

Pn. caudata.

Syn. Tesia caudata, Blyth, J. A. S. XIV. 588.

Inhabits Sikkim.

Genus ARUNDINAX, Blyth.

A. olivaceus, Blyth, J. A. S. XIV. 595.

Syn. Phragmaticola olivacea, Blyth, M. S. Jerdon, Madr. Journ. XIII. pt. II. p. 129

Inhabits Bengal; Arracan; S. India.

Genus ACROCEPHALUS, Naum.

Acr. brunnescens, J. A. S. XV. 288.

Syn. Acrobates brunnescens, Jerdon, Madr. Journ. X. 269.
Acroceph arundinaceus v. turdoides of India, auctorum.

Inhabits India generally; Arakan.

Acr. montanus.

Syn. Sylvia montana, Horsfield, Lin. Tr. XIII. 156.

Inhabits India generally; Java.

Genus LOCUSTELLA, (Ray) Gould.

L. rubescens, Blyth, J. A. S. XIV. 582. Inhabits Lower Bengal (in the cold season).

Genus PSEUDOLUSCINIA (?), Savi.

Ps. luteoventris.

Syn. Tribura luteoventris, Hodgson, P. Z. S. 1845, p. 30; J. A. S. XIV. 583.

Inhabits Kachar region of Nepal.

Genus DUMETICOLA, Blyth.

D. thoracica, Blyth, J. A. S XIV. 584.

Syn. Salicaria affinis, Hodgson, G. R. Gray.

Inhabits Nepal.

Genus PHYLLOPNEUSTE, Meyer.

Ph. rama.

Syn. Sylvia rama, Sykes, P. Z. S. 1832, p. 89 J. A. S. XVI. 440.

Inhabits India generall,.

Ph indicus, Blyth, J. A. S. XIV. 593. Inhabits Nepal; S. India; China (Chusan).

Ph. occipitalis, Jerdon, J. A. S. XIV. 593. Inhabits S. India.

Sub-genus ABRORNIS, Hodgson.

Abr. pulcher, Hodgson J. A. S. XVI. 592. Inhabits Nepal; Sikkim.

Abr. cantator.

Syn. Motacilla cantator, Tickell, J. A. S. II. 576; XVI. 440.
Culicipeta schisticeps, Hodgson apud G. R. Gray.

Inhabits Nepal; C. India; rare in Lower Bengal.

Abr. schisticeps, Hodgson, J. A. S. XIV. 592.

Syn. Phyllopneuste xanthoschistos, Hodgson, G. R. Gray.

Inhabits Himalaya generally; Arracan.

Abr. poliogenys, Blyth, J. A. S. XVI. 441. Inhabits Sikkim.

Sub-genus CULICIPETA, Blyth.

C. Burkii, J. A. S. XII. 968.

Syn. Sylvia Burkii, Burton, P. Z. S. 1835, p. 153.
Cryptolopha auricapilla, Swainson, 2½ Conten.
Muscicapa bilineata, Lesson, Rev. Zool. par la Soc. Cuv. 1839, p. 104.

Inhabits India generally; rare to the south.

Sub-genus REGULOIDES, Blyth.

R. trochiloides.

Syn. Acanthiza trochiloides, Sundevall.
Phyllopneuste reguloides, Blyth, J. A. S. XI. 191; XII. 963.

Inhabits Himalaya; migrating southward in cold season.

R. modestus (Gould's *B. E.* pl.) J. A. S. XIV. 963.

Syn. Regulus modestus, Gould.
R. inornatus, Blyth, J. A. S. XI. 19— (abraded plumage).
Phyllopneuste nitida, G. R. Gray.

Inhabits N. India, common in L. Bengal: very rare in Europe.

R. chloronotus, Hodgson, G. R. Gray. Inhabits Himalaya.

Subgenus PHYLLOSCOPUS, Boie.

Ph. nitidus, Blyth, J. A. S. XII. 965.

Syn. Muscicapa nitida (?) Latham, Franklin.
Sylvia hippolais apud Jerdon, Madr. Journ. XI. 6.
Hippolais Swainsoni, G. R. Gray.

Inhabits India generally; Ceylon.

Ph. trochilus, (*Pl. Enl.* 651, f. 1).

Syn. Motacilla trochilus, L.

Inhabits Europe; N. Africa; W. Asia; W. India (apud Gould); Japan.

Ph. tristis, Blyth, J. A. S. XII. 966.

Syn. "Sylvia trochilus ?" apud Jerdon, Madr. Journ. XI. 6.

Inhabits India generally.

Ph. montanus, Blyth, J. A. S. XVIII. Inhabits Himalaya.

P. viridanus, Blyth, J. A. S. XII. 967. Inhabits India generally; Arracan; very common in Lower Bengal.

Ph affinis, J. A. S. XVI. 442.

Syn. Motacilla affinis, Tickell, J. A. S. II. 576.

Inhabits Bengal (common).

Ph. lugubris, Blyth, J. A. S. XII. 968. Inhabits India generally: common in Lower Bengal.

Ph. javanicus ?

Syn. Sylvia javanica (?), Horsfield, Linn. Tr. XIII. 156.
Ph. magnirostris, Blyth, J. A. S. XII. 966.

Opior Opior, Java. Inhabits Nepal; Bengal; Arracan; Java.

Ph. brunneus, Blyth, J. A. S. XIV. 591 (described from a small specimen).

Syn. Ph. fuscatus, var., Blyth, J. A. S. XVI.
443-4.

Inhabits Bengal : common in Arracan.

Ph. fuscatus, Blyth, J. A. S. XI. 113 ; XII. 965. Inhabits Bengal ; Arracan.

Genus REGULUS, (Antiq.) Cuvier.

R. ignicapillus, Temminck. Inhabits Europe and Asia. N. W. Himalaya ?

R. cristatus, Ray (*Pl. Enl.* 651, f, 3).

Syn. Motacilla regulus, L.
R. auricapillus, Selby.
R. flavicapillus, Naum.

Inhabits Europe and Asia: N. W. Himalaya.

Subfam. SYLVIANÆ (frugivorous Warblers).

Genus SYLVIA, Latham (*Phularia* H., *i. e.* ('Flower pecker').

S. Jerdoni.

Syn. Curruca Jerdoni, Blyth, J. A. S. XVI.
439.
Philomela orphea apud Jordon, Madr. Journ. X. 267.

Inhabits S. India.

S. affinis.

Syn. Curruca affinis, Blyth, J. A. S. XIV. note to p. 564.

Inhabits S. India; Ceylon.

S. curruca, (*Pl. Enl.* 380, f. 3).

Syn. Motacilla curruca, M. sylviella, et M. dumetorum, Gmelin.
Curruca garrula, Brisson.

Inhabits Europe ; Asia ; Africa : India generally (nec Lower Bengal below the tideway).

Fam. CERTHIADÆ.

Subfam. CERTHINÆ.

Genus CERTHIA, L.

C. nipalensis, Hodgson, (Blyth, *Mon. Indian Certhiadæ*).

Syn. C. himalayana apud Blyth, J. A. S. XIV. 581.

Inhabits Nepal.

C. discolor, Blyth, J. A. S. XIV. 580. Inhabits Sikkim.

C. himalayana, Vigors. P. Z. S. 1831, p. 174.

Syn. C. asiatica, Swainson, 2½ cent.

Inhabits Deyra Doon.

Subfam. SITTINÆ.

Genus TRICHODROMA, Illiger.

T. muraria (*Pl. Enl.* 372.)

Syn. Certhia muraria, L.
T. phœnicoptera. Temminck.
T. europæa, Stephens.

Inhabits S. Europe ; W. Asia ; Afghanistan; Himalaya.

Genus SITTA, L.

S. formosa, Blyth (J. A. S. XII. 938, 1007). Inhabits Sikkim.

S. cinnamoventris, Blyth, J. A. S. XI. 459. Inhabits Himalaya.

S. castaneoventris, Franklin (J. and S., *Ill. Orn.*, 1st series, pl. 165). Inhabits Hill regions of India.

S. himalayana, Jardine and Selby (*Ill. Orn.* 1st series, pl. 164).

Syn. S. nipalensis, Hodgson, J. A. S. V. 779.

Sub-genus DENDROPHILA, Swainson.

D. frontalis (Swainson's *Zool. Ill.*, 1st series, pl. 2).

Syn. Sitta frontalis, Horsfield.
S. velata, Temminck.
S. corallina, Hodgson, J. A. S. V. 779.

Inhabits India, Burmah, and Malay countries.

Fam. GRAUCALIDÆ.

Genus GRAUCALUS, Cuvier.

Gr. Macei, Lesson.

Syn. Gr. papuensis of India, auctorum.
Gr. nipalensis, Hodgson, Ind. Rev. 1837, p. 327.
Ceblepyris javensis (?), Horsfield, vide J. A. S. XV. 306.

Kepodang-sungu, Jav. Inhabits India generally ; Ceylon ; Arracan ; Tenasserim.

Genus CAMPEPHAGA, Vieillot.

C. fimbriata apud Strickland (*Pl. Cl.* 247, 250.)

Syn. Ceblepyris fimbriatus, Temminck.
Lanius silens, Tickell, J. A. S. II. 573.
Volvocivora melaschistos, Hodgson, Ind. Rev. 1837, 328.
Graucalus maculosus, McClelland, P. Z. S. 1839, p. 159.
Ceblepyris lugubris, Sundevall.
Blue-grey Thrush, Latham.

Inhabits India generally ; commoner to the N., and breeding in the Himalaya : Java ?

C. melanoptera, Blyth, J. A. S. XV. 307. Inhabits Arracan, where common.

C. Sykesi, Strickland, *Ann. Mag. N. H.* 1844, p. 36.

Syn. Ceblepyris fimbriatus apud Jerdon, Catal.
C. canus, Sykes,—the young ?
Eastern Thrush, Latham.

Inhabits India generally ; Ceylon : nec Himalaya.

C. cœrulescens.

Syn. Ceblepyris, cærulescens, Blyth, J. A. S. XI. 463, XV. 308.

Inhabits Lucon.

Genus LALAGE, Boie.

L. orientalis (*Pl. Enl.* 273, f. 3).

SYN. Lanius orientalis, Gmelin.
Turdus striga, Raffles,
Sylvia leucophæa, Vieillot nec, Latham.

Kras, Malay; *Lenjettan*, Jav. Inhabits Malayan peninsula and Archipelago.

Fam.——— ?

Genus PERICROCOTUS, Boie.

P. speciosus (Gould's Century, pl. 7).

SYN. Turdus speciosus, Latham.
Muscipeta princeps, Vigors and Gould.

Nget-meng-tha, i. e. 'Prince bird,' Arracan. Inhabits Himalaya; C. India: rare in S. India and in L. Bengal: Assam, Sylhet, Arracan, Tenasserim, Malayan peninsula (Penang).

P. flammeus (Swainson's *Zool. Ill.* 2nd series, pl. 52; Jerdon's *Ill. Ind. Orn* pl. 11).

SYN. Muscicapa flammea, Forster, Pennant's Ind. Zool.
M. subflava, Vieillot.
Phœnicornis elegans, McClelland, P. Z. S. 1839, p. 156.
August Flycatcher, Latham (but the preceding species also referred to).

Phari Bulal Chusm, H, (Jerdon); Inhabits S. India: Ceylon. Assam? (vide J. A. S. XV. 309.

P. brevirostris (Gould's 'Century,' pl. 8).

SYN. Muscipeta brevirostris, Vigors and Gould.
Phœnicornis miniatus apud Swainson, Class. Birds.

Inhabits Himalaya; Assam; Sylhet; Arracan: rare in C. and S. India.

P. igneus, Blyth, J. A. S. XV. 309.

SYN. Malayan P. flammeus, Auctorum.

Uwis, or *Semuttan*, Java. Inhabits Malay countries.

P. solaris, Blyth, J. A. S. XV, 310. Inhabits Sikkim.

P. roseus.

SYN. Muscicapa rosea, Vieillot.
Phœnicornis affinis, McClelland, P. Z. S. 1839, p. 157.

Nget-meng-tha-mee (*i. e.* 'Princess-bird'), Arracan. Inhabits India generally; Arracan.

P. peregrinus (Gould's 'Century.' pl. 9).

SYN. Parus peregrinus et Motacilla cinnamomea, L.
P. coccineus et malabaricus, Gmelin.

Bulal Chusm, H. (Jerdon). Inhabits India generally; Ceylon; Arracan.

P. (?) *erythropygius* (Latham's *Gen. Hist.* Vol. VI, p. 178, pl. 98); Jardine's *Contrib. Orn.*, pl. 1).

SYN. Muscicapa erythropygia, Jerdon, Madr. Journ. XI. 17.
Turdus speciosus, var. B. and Cawnpore Flycatcher, Latham.

Inhabits Hindustan (nec L. Bengal).

Fam. AMPELIDÆ.

Genus COCHOA, Hodgson (*Cocho*, Nepal).

C. purpurea, Hodgson, J. A. S. V. 359 (J. A. S. No. 139, pl.). Inhabits Nepal; Sikim.

Fam. PIPRIDÆ.

Subfam. EURYLAIMINÆ

Genus EURYLAIMUS, Horsfield.

Sub-genus CORYDON, Lesson.

C. sumatranus (*Pl. Col.* 297).

SYN. Eurylaimus sumatranus, Raffles.
Eu. corydon, Temminck.
Eu. Temminckii, Lesson.
Eurylaimus? Hay, J. A. S. X. 575.

Kungquait, Malay. Inhabits Tenasserim provinces; Malayan peninsula; Sumatra.

Sub-genus EURYLAIMUS.

Eu. javanicus, Horsfield, (*Pl. Col.* 130. 131; *Zool. Res. in Java*, pl.)

SYN. Eu. Horsfieldi, Temminck.
Tamplana Lilin, Malay.

Inhabits Arracan: Tenasserim; Malayan peninsula and Archipelago.

Eu. ochromalus, Raffles (*Pl. Col.* 261).

SYN. Eu. cucullatus, Temminck.
Tamplana Quilin, Malay.

Inhabits Tenasserim provinces; Malayan peninsula and Archipelago.

C. nasutus (*Pl. Col.* 154).

SYN. Todus nasutus, Latham.
T. macrorhynchus, Gmelin.

Ujuu and *Tadak Whogan*, Malay; *Palano*, or *Tampalano*, Sum. Inhabits Tenasserim provinces; Malayan peninsula and Archipelago.

C affinis, Blyth, J. A. S. XV. 312. Inhabits Arracan.

Sub-genus PSARISOMUS, Swainson.

Ps. *Dalhousiæ* (Gould's *Icones Avium*; Royle's *Ill. Him Bot.* pl. 7).

SYN. Eurylaimus Dalhousiæ, Jameson.
Eu. psittacinus, Muller.
Raya sericeogula. Hodgson, J. A. S. VIII. 36.

Inhabits Himalaya; Assam; Sylhet; Arracan.

Sub-genus SERILOPHUS, Swainson.

S. lunatus (*Trans. Zool. Soc.*, pl. 25).

SYN. Eurylaimus lunatus, Gould.
S, lunulatus, Swainson.

Inhabits Tenasserim provinces.

S. rubropygia, J. A. S. XV. 311.

SYN. Raya rubropygia, Hodgson, J. A. S. VIII. 36.
Eu. lunatus apud Horsfield, P. Z. S. 1838, p. 156.

Inhabits S. E. Himalaya; Assam; Sylhet; Arracan.

Subfam. PIPRINÆ.

Genus CALYPTOMENA, Raffles.

C. viridis, Raffles. (*Pl. Col.* 316 : Horsfield's *Zool. Res. in Java*, pl.)

SYN. C. Rafflesii et C. caudacuta (the young), Swainson.

Seboo, Pachat, Sampo Penang, Malay. Inhabits Malayan peninsula ; Sumatra.

Fam. HIRUNDINIDÆ.

Genus HIRUNDO, L.

Ababil-Chatok, H ; *Mo-tswai-nghet*, or *Pgan-hlwa*, Arracan ; *Layang Layang*, Malay.

H. filifera, Stephens.

SYN. H. ruficeps (?), Lichtenstein.
H. filicaudata, Franklin, P. Z. S. 1831, p. 115.
H. indica et H. erythrocephala (?), Gmelin

Inhabits C. India chiefly ; rare in S. India ; Deyra Doon ; Katak.

H. rustica, L. (*Pl. Enl.* 543, f. 1).

SYN. H. gutturalis, Scopoli.
H. javanica. Sparrman.
H. panayana, Latham.
H. jewan, Sykes, P. Z. S. 1832, p. 83.

Inhabits Europe, Asia, and Africa ; visiting India during the cold season.

H. domicola, Jerdon, *Madr. Journ.* XIII. 173.

SYN. H. javanica apud Latham and Shaw.
Bungalow Swallow of residents in the Nilgiris.

Inhabits Malay countries ; Nilgiris.

H. daurica, L.

SYN. H. alpestris, Pallas.
H. erythropygia, Sykes, P. Z. S. 1832, p. 83.
H. nipalensis, Hodgson. J. A S. V, 780.

Inhabits E. Asia : common during the winter months in India, China, and Malasia.

H. hyperythra, Blyth, J. A. S. XVIII ; *Mon. Ind. Hirundinidæ.*

Inhabits Ceylon (resident).

H. urbica, L. *Pl. Enl.* 542, f. 2).

Inhabits Europe ; N. Africa ; rare in India.

H. rupestris, Seopoli (Gould's *B. E.* pl. 56.)

SYN. H. montana, Gmelin.
H. rupicola, Hodgson, J. A. S. V. 781.
H. inornata, Jerdon, Madr. Journ. XIII, 173.

Inhabits S. Europe ; N. Africa ; W. Asia ;
H. laya ; Nilgiris.
Inhabi*lor*, Sykes, P. Z. S. 1832, p. 83:
H. riparia, India.
Northern region (*Pl. Enl.* 543, f. 2). Inhabits
Sutlej) ; C. India (Africa ; N. India (banks of
H. sinensis, Hardw
SYN. H. brevicaudata, *Ill. Ind. Zool.*
156.
d, P. Z. S. 1839, p.
Inhabits river banks of all
and China (?). ia ; Burmah,

Fam. ARTAMID

Genus ARTAMUS, Vieillot.

A. fuscus, Vieillot (*Mem. Mus.* Tom. VI. fig.).

SYN. Ocypterus rufiventer, Valenciennes.
A. leucorhynchos, (L.) apud McClelland, P. Z. S. 1839, p. 158, et Jerdon, Catal.
Murasiny Chatterer and Brown coloured swallow, var. A. Latham.

Tal-chatok Beng. Inhabits India generally ; Assam ; Arracan.

Fam. DICRURIDÆ.

Genus DICRURUS, Vieillot (*Chibya*, Nepal ; *Chayon* or *Chagon*, Malay).

Sub-genus CHIBIA, Hodgson.

Ch. hottentota.

SYN. Corvus hottentotus, L.
Edolius barbatus, Gray.
E. crishna, Gould, P. Z. S. 1836, p. 5.
Criniger splendens, Tickell, J. A. S. II. 514.
Chibia casia, Hodgson, Ind. Rev. 1837, p. 324.
Krishna Crow, Latham.

Kesh-raj, B. ; *Kesya*, Nepal. Inhabits Bengal ; Nepal ; Assam ; C. India ; rare in the peninsula of India (vide *Madr. Journ.* XIII, pt. 2. 121.

Sub-genus CHAPTIA, Hodgson.

Ch. ænea (Vaill. *Ois. d' Afr.* 176).

SYN. Dicrurus æneus, Vieillot.
D. æratus, Stephens.
Ch. muscipetoides, Hodgson, Ind. Rev. 1837, p. 327.

Butchanga, Beng. ; *Chaptya* (i. e. 'flat-billed'), Nepal. Inhabits Nepal ; Bengal : Assam.

Ch. malayensis, A. Hay, J. A. S. XV. 294. Inhabits Malayan peninsula.

Sub-genus BHRINGA, Hodgson.

Bh. remifer, (*Pl. Col.* 178).

SYN. Edolius remifer, Temminck.
E. rangonensis apud Horsfield, P. Z. S. 1839, p. 158.
Bh. tectirostris, Hodgson, Ind. Rev. 1837, p. 325.

Nghet-dan ; Arracan. Inhabits Himalaya ; Assam.

Sub-genus EDOLIUS, Cuvier.

E. paradiseus.

SYN. Cuculus paradiseus, L.

Bherm or *Bhring raj*, H. ; *Kate-ongal*, Mahr. ; *Kalgia*, Nepal ; *Nghet-dau*, Arracan ; *Barong Saweh*, and *Chanwi*, Malayan. Inhabits India and Malasia.

Var. A. SYN. Chibia malabaroides, Hodgson, Ind. Rev. 1837, p. 325.
Lanius malabaricus as figured by Latham and Shaw (but not L. malabaricus as described by Latham from Sonnerat).
E. grandis apud Blyth, J. A. S. XI. 170 ; Ann. Mag. N. H. XIV. 46.

Inhabits Nepal; Tippera; Tenasserim provinces.

Var. B. SYN. E. grandis, Gould, P. Z. S. 1836, p. 5.
E. dentirostris and E. orissæ (?), Jerdon, Madr. Journ. XIII. pt. 2, p. 121.
Dicrurus platurus, Vieillot, apud G. R. Gray.

Inhabits India; Bengal Sundarbuns; Assam; Arracan; Tenasserim provinces.

Var. C. SYN. Cuculus paradiseus, L.
E. rangonensis, Gould, P. Z. S. 1836, p. 5.
E. intermedius, Lesson, apud G. R. Gray.
E. cristatellus, Blyth, J. A. S. XI. 171.

Inhabits Malay countries.

Sub-genus DICRURUS, Vieillot.

D. edoliformis, Blyth, J. A. S. XV. 297. Inhabits Ceylon.

D. viridescens, Gould (vide J. A. S. XI. 173, and 802, figs. 10 and 11). Inhabits Burmah.

D. balicassius (*Pl. Enl.* 603).

SYN. Corvus balicassius, L.
Oriolus fuscatus, Gmelin.
Bhuchanga annectaus, Hodgson, Ind. Rev. 1837, p. 326.
Dicrurus affinis, Blyth, J. A. S. XI. 147.
Corvus afer, Licht., and
C. assimilis, Bechstein, apud G. R. Gray.

Inhabits Malay countries; Nepal.

D. macrocercus, Vieillot (*As. Res.* XVIII. pt. 2, pl.).

SYN. Muscicapa biloba, Lichtenstein.
D. indicus, Stephens, Hodgson.
Bhuchanga albirictus, Hodgson, Ind. Rev. 1837, p. 326.
Edolius forficatus, Horsfield, in Linn. Tr. XIII. 144 (apud Strickland).
E. longus, Vaill., apud Horsfield.

Finga, Beng.; *Kolsa*, or *Bojunga*, sometimes also *Kotwal*, H. (Jerdon); *Qwyai-myeetshwai*, Arracan; *Sri Gunting*, Jav. Inhabits India generally; Arracan; Java?

D. longicaudatus, A. Hay (described in *Ann. Mag. N. H.* 1844, p. 46); Jerdon, *Madr. Journ.* XIII. pt. 2, p. 121; J. A. S. XV. 298.

SYN. D. macrocercus apud Jerdon, Catal.
D. cineraceus apud Gray, Hodg. Catal.

Nil Finga, and *Dhouh*, Beng. Inhabits India generally; Ceylon.

D. intermedius, Blyth, J. A. S. XV. 298. Inhabits Tenasserim provinces; Penang.

D. cærulescens (Edwards, pl. 56), vide *Ann. Mag. N. H.* 1844, p. 47.

SYN. Lanius cærulescens, L.
L. fingah, Shaw.

Phari Bajunga H. (Jerdon). Inhabits India generally; not common in L. Bengal.

D. leucopygialis, Blyth, J. A. S. XV. 298. Inhabits Ceylon.

D. cineraceus.

SYN. Edolius cineraceus, Horsfield, Linn. Tr. XIII. 145.
D. leucopæus (?), Vieillot.
D. ceylonensis (?), Stephens.

Chenta, Jav. Inhabits Malay countries.

Fam. TCHITREADÆ.

Genus TCHITREA, Lesson.

Tch. paradisi (Vaill., *Ois. d' Afr.*, pl. 44, 45, 46; Jerdon's *Ill. Ind. Orn.* pl. 7).

SYN. Muscicapa paradisi, L.
M. indica, Stephens. } the rufous
M. castanea, Temminck. } plumage.
M. mutata of India, Latham.
Muscipeta leucogaster, Swainson, Nat. Libr. Muscicapidæ.

Shah Bulbul, and *Hosseini Bulbul*, H.; *Kaddehoora*, Cingh.; (the white bird); and *Sultana Bulbul*, H.; *Ginihoora*, Cingh; (the chesnut bird;) *Tonka Peegeelee-pitta* (*i. e.* 'long-tailed Bulbul'), Telugu; *Walkardalatee*, Tamul.

Inhabits India generally; Bengal; Deyra Doon.

Tch. affinis, A. Hay, J. A. S. XV. 292; XVII. 1179.

SYN. Malayan Tch. paradisi, Auctorum.
M. castanea (?), Temminck.

Ahtap, and *Mira Jabone*, Malayan.
Inhabits Malay countries; Tenasserim; Arracan; Sikim; Nepal?

Tch. atrocaudata (?), Eyton, vide J. A. S. XV. 298.

SYN. Muscipeta atriceps, Blyth, J. A. S. XI. 203, 790.

Inhabits Malayan peninsula.

Genus MYIAGRA, Swainson.

M. cærulea (Vaill. *Ois. d' Afr.* 153).

SYN. Muscicapa cærulea, Vieillot.
M. occipitalis, Vigors.
M. cæruleocephala, Sykes (the female).
Azure-headed Flycatcher, Latham.

Kala-mata Kutkutia, B. Inhabits India generally; Burmese and Malay countries. Philippilnes.

Genus PHILENTOMA, Eyton.

Ph. velatum (*Pl. Col.*).

SYN. Muscicapa velata, Temminck.
M. pectoralis, A. Hay, Madr. Journ. XIII. pt. 2, p 161, Strickland, Ann. Mag. N. H. XIX (1847), p. 131.

Inhabits Malayan peninsula and Archipelago.

Ph. pyrrhopteron (*Pl. Col.* 596, f. 2).

SYN. Muscicapa pyrrhoptera, Temminck.
Muscipeta plumosa, Blyth, J. A. S. XI. 79.
Ph. castaneum, Eyton, Ann. M. M. N. XVI. (1845), p. 229.

Inhabits Malayan peninsula and Archipelago.

Genus CRYPTOLOPHA, Swainson.

Cr. cinereocapilla (Swainson's *Zool. Ill.* pl. 13 ; *Nat. Libr.* Vol. on Flycatchers, pl. 23).

SYN. Muscicapa cinereocapilla, Vieillot.
Platyrhynchus ceylonensis et
Cr. poiocephala, Swainson.
Muscicapa nitida, var. A. Latham.

Inhabits India generally ; Assam ; Arracan ; Tenasserim.

Genus RHIPIDURA, Vigors and Horsfield.

Rh. hypoxantha, Blyth, J. A. S. XII. 935.

SYN. Chelidorhynx chrysoschistos, Hodgson, P. Z. S. 1845, p. 32.

Inhabits Nepal ; Sikim.

Genus LEUCOCERCA, Swainson.

L. fuscoventris, Franklin, P. Z. S. 1831, p. 117.

SYN. Muscicapa sannio, Sundevall.
M. (Muscylva) alboguiaris (?), Lesson, the young ?
Broad-tailed Flycatcher, Latham.

Chok Doyal, Beng. Inhabits L. Bengal ; C. India.

L. albofrontata (Jerdon's *Ill. Ind. Orn.* pl. 2). *Rhipidura albofrontata*, Franklin, P. Z. S. 1831, p. 117. Inhabits India generally (nec alluvium of L. Bengal.)

L. pectoralis Jerdon. J. A. S. XII. 953 ; Jerdon's *Ill. Ind. Orn.*, Art. *Rh. albofrontata.* Inhabits Nilgiris.

L. javanica.

SYN. Muscicapa javanica, Sparrman.
Platyrhynchus perspicillatus, Vieillot.

Murai-Kandang, Sum. ; *Sikattan*, Jav. Inhabits Malay countries.

Fam. PYCNONOTIDÆ.

Genus HYPSIPETES, Vigors. (*Bulbul*, H. *Boot Boot*, Arracan).

H. olivacea, Jardine and Selby, *Ill. Orn.* 2nd series (figured erroneously as *H. ganeesa*, Sykes, in 1st series, pl. 168).

SYN. Ixocincla olivacea, Bl., described J. A. S. XIV. 575.

Inhabits Mauritius.

H. psaroides, Vigors (Gould's 'Century,' pl. 10). *Ban Bukra* ('Jungle Goat,' from voice), Masuri (Hutton). Inhabits Himalaya ; Assam ; Arracan.

H. nilgiriensis, Jerdon, *Madr. Journ.* X. 245. Inhabits Nilgiris ; Ceylon.

H. concolor, Blyth, J. A. S. XVIII. Inhabits Tenasserim provinces.

H. McClellandii, Horsfield, P. Z. S. 1839, p. 159. Inhabits Himalaya ; Assam ; Arracan.

H. malaccensis, Blyth, J. A. S. XIV. 574. *Chtap*, Malay. Inhabits Malayan peninsula.

H. virescens, Blyth, J. A. S. XV. 51.

SYN. Ixocincla virescens, Blyth. J. A. S. XIV. 579.

Inhabits Nicobars.

Genus IOLE, Blyth.

I. olivacea, Blyth, J. A. S. XIII. 386 ; XIV. 573. Inhabits Malay countries.

I. virescens, Blyth, J. A. S. XIV. 573. Inhabits Arracan.

Genus HEMIXOS, Hodgson.

H. flavala, Hodgson, J. A. S. XIV. 572. Inhabits Himalaya ; Assam ; Arracan ; Tenasserim.

H. icterica.

SYN. Criniger ? ictericus, Strickland, An. Mag. N. H. 1844, p. 411.
Turdus indicus (?), Gmelin, apud Jerdon.

Inhabits S. India ; Ceylon,

Genus CRINIGER, Temminck.

Cr. striatus.

SYN. Trichophorus striatus, Blyth J. A. S. [illegible]
Alcurus striatus, Hodgson, J. A. S. XII.

Inhabits Himalaya.

Cr. flaveolus.

SYN. Trichophorus flaveolus, Gould, P. Z. S. 1836, p. 6.

Inhabits Himalaya ; Arracan.

Cr. gularis.

SYN. Turdus gularis, Horsfield, Lin. Tr. XIII. 150.
Ixos phaiocephalus, Hartlaub.
Trichophorus caniceps, Lafresnaye.
Pycononotus rufocaudatus, Eyton, Ann. Mag. N. H. 1845, p. 228.

Marba-rimba, Malay ; *Bres* Jav. Inhabits Malay countries.

Cr. ochrocephalus.

SYN. Turdus ochrocephalus, Gmelin.
Trichophorus crispiceps, Blyth, J. A. S. XI. 204.

Barou Barou (same as Tephra dorius gularis) Malay ; *Chuchakrawa*, Jav. Inhabits Malay countries.

Genus PYCNONOTUS, Kuhl.

P. jocosus.

SYN. Lanius jocosus, L.
L. emeria, Shaw.
Gracula cristata, Scopoli.
Sitta chinensis, Osbeck, apud G. R. Gray.

Karra Bulbul, *Sepahi Bulbul*, Beng. Inhabits India generally ; Arracan ; variety (?) in the Tenasserim provinces and Penang.

P. bengalensis, Blyth, J. A. S. XVI. 567.

SYN. P. cafer of India, Auctorum.

Kala Bulbul, Beng. Inhabits Sub-Himalayan region ; Assam ; Bengal ; Mednapur District.

P. hæmorrhous.

Syn. Turdus hæmorrhous, Gmelin.
Hæmatornis pusillus et pseudocafer, Blyth, J. A. S. X. 841.
H. cafer apud Jerdon, Catal.

Touhi-bulbul, Beng. Inhabits Hindustan generally ; S. India ; Ceylon ; Arracan.

P. nigropileus, Blyth, J. A. S. XVI. 472. Inhabits Tenasserim provinces.

P. leucotis.

Syn. Ixos leucotis, Gould, P. Z. S. 1836, p. 6.

Bhooroo, Sindh. Inhabits Sindh.

P. leucogenys, (Hardw. *Ill. Ind. Zool.*)

Syn. Brachypus leucogenys, Gray.
Ixos plumigerus, Lafresnaye.
Hæmatornis cristatus, Burn.

Inhabits Himalaya ; Kashmir.

P. xantholaimus Jerdon (*Ill. Ind. Orn.* pl. 35), J. A. S. XIV. 568. Inhabits E. Ghats of Peninsular India.

P. goiavier (Sonn. *Voy.* t. 28).

Syn. Muscicapa goiavier, Scopoli.
M. psidii, Gmelin,
Turdus aualis, Horsfield.

Beribba, Malay ; *Chuchack*, Jav. Inhabits Malay countries.

P. flavescens, Blyth, J. A. S. XIV. 568. Inhabits Arracan.

P. flavirictus, Strickland, *Ann. Mag. N. H.* 1844, p. 413.

Syn. Trichophorus virescens, Tem., apud Jerdon, Catal.
Ixos virescens, Tem., apud Tickell, J. A. S. II. 571.
Criniger Tickelli, Blyth, J. A. S. XIV. 571.

Inhabits Peninsula of India ; Ceylon ; Mednapur jungles, and W. border of the Gangetic delta.

P. plumosus, Blyth, J. A. S. XIV. 567. Inhabits Malayan peninsula.

P. brunneus, Blyth, J. A. S. XIV. 568. *Merlia*, Malay. Inhabits Malayan peninsula.

P. Finlaysoni, Strickland, *Ann. Mag.* N. H. 1844, p. 411. Inhabits Burmese countries. Common in Arracan, Tenasserim, &c.

P. sinensis (Eydoux and Gervais, *Voy. de la Favorite*, pl. 14).

Syn. Muscicapa sinensis, Gmelin.
Turdus occipitalis, Temminck.

Inhabits China ; Philippines.

P. melanocephalus (Hardw. *Ill. Ind. Zool.*)

Syn. Brachypus melanocephalus, Gray.
Br. plumifer (?), Gould, P. Z. S. 1837, p. 137.
Vanga flaviventris, Tickell, J. A. S. II. 537.

Inhabits Himalaya ; C. India ; Assam, Sylhet, Tippera, Arracan, Tenasserim provinces.

P. atricapillus (Levaillant, *Ois. d' Afr.*, pl. 140 ; much too dully coloured).

Syn. Ægithina atricapilla, Vieillot—nec P. atricapillus, (Vieillot, apud Lord A. Hay, described J. A. S. XIV. 569.
Rubigula aberrans, Blyth, J. A. S. 287 ; XVI. 472.

Inhabits Ceylon.

P. gularis (Jerdon's *Ill. Ind. Orn.* pl. 37.

Syn. Brachypus gularis, Gould, P. Z. S. 1835, p. 186.
Br. rubineus, Jerdon, Madr. Journ. X. 246.

Inhabits S. India.

P. (?) *cyaniventris*, Blyth, J. A. S. XI. 792.

Syn. Ixodia (afterwards changed to Ixidia) cyaniventris, Blyth, J. A. S. XIV. 578.
Malacopteron aureum, Eyton, Ann. Mag. N. H. 1845, p. 228.
Turdus No. 6, Raffles, Linn. Tr. XIII. 311.

Inhabits Malayan peninsula ; Sumatra.

Genus MICROTORSUS, Eyton (*Macrocelis* ? Swainson).

M. melanoleucos, Eyton, P. Z. S. 139, p. 102.

Syn. Brachypodius tristis, Blyth, J. A. S. XIV. 576,—the young.

Labam, and *Mirba Tando*, Malay. Inhabits Malayan peninsula.

Genus BRACHYPODIUS, Blyth.

B. melano cephalus.

Br. cinereoventris, Blyth, J. A. S. XIV. 576. Inhabits Tippera.

Br. poiocephalus, Jerdon (*Ill. Ind Orn.* pl. 31) ; *Madr. Journ.* X. 246. Inhabits S. India.

Genus SETORNIS (?), Lesson.

S. (?) *criniger.*

Syn. Brachypus (?) criniger, A. Hay, J. A. S. XIV. 577.

Inhabits Malayan peninsula.

Subfam. PHYLLORNINÆ.

Genus PHYLLORNIS, Boie (*Hariwa*, Beng.)

Ph. Hardwickii (Ad. Delessert, *Voy. dans. l'Inde*, pt. 2, pl. 7).

Syn. Chloropsis Hardwickii, Jardine and Selby, Monag.
Chl. curvirostris, Swainson, 2½ Centen.
Chl. cyonopterus, Hodgson.
Chl. chrysogaster, McClelland, P. Z. S. 1839, p. 167.
Chl. auriventris, Guérin.

Boing-dan-thay, Arracan.

Inhabits Himalaya ; Assam ; Sylhet ; Arracan.

Ph. aurifrons (Jardine and Selby, *Orn. Ill.* pl. 5.)

Syn. Chloropsis aurifrons, Jardine and Selby, Monog.
Chl. malabaricus ibid. (tab. cit.)

Subz Hariwa, Nepal; *Nget-tsin*, Arracan. Inhabits S. India; Himalaya; Assam; Sylhet; Arracan.

Ph. malabaricus.

SYN. Turdus malabaricus, Gmelin, No. 125.
Chloropsis aurifrons apud Jerdon, Catal.

Inhabits Indian peninsula; Ceylon?

Ph. Jerdoni, Blyth, J. A. S. XIV. 566. (Jerdon's *Ill. Ind. Orn.* pl. 43).

SYN. Chloropsis gamsorhynchus (mispelt cæsmarhynchos, v. casmarhynchus apud Gray, Griffith's Transl. An. Kingd. VI. 391), apud Tickell, J. A. S. II, 577.
Chl. cochinchinensis apud Jerdon, Catal.
Blue chinned Thrush, Latham.

Ph. cochinchinensis (*Pl. Cl.* 414, f. 2, apud Strickland.

SYN. Turdus cochinchinensis, Lath., Gm., the adult; and
T. malabaricus apud Latham—the young.
Chloropsis malabaricus apud Eyton, P. Z. S., 1836, p. 102, and Blyth, J. A. S. XII. 967, (nec fœm).
Philemon nigricollis (?), Vieillot.
Meliphaga javensis, Horsfield.
Phyllornis moluccensis, Gray.

Nget-tsin (same as No. 1283), Arracan; *Chuchakiju*. Jav. Inhabits Burmese and Malay countries generally; Arracan.

Ph. Sonneratii (Jardine and Selby, *Orn. Ill.* pl. 100).

SYN. Chloropsis Sonneratii, Jardine and selby.
Phyllornis Mulleri, Temminck.
Chl. gampsorhynchus, Jardine and Selby.
Chl. zosterops, Vigors.
Turdus viridis, Horsfield.
} young.

Daon, or *Dawoan*, Malay. Inhabits Malay countries generally.

Ph. cyanopogon, Temminck, (*Pl. Col.* 512, f. 1).

SYN. Chloropsis mysticalis, Swainson, 2¼ Centen. the young; described as that of and was referred erroneously to Ph. malabaricus, J. A. S. XII. 957.

Inhabits Malay countries generally.

Genus IORA, Horsfield.

I. innotata, Blyth, J. A. S. XVI. 472. Inhabits Arracan.

I. zeylanica (Brown's *Ill.*; pl. 15, 32, Lev. *Ois. d' Afr.*, pl. 141).

SYN. Motacilla zeylanica, cingalensis, et melanictera, Gmelin.
Fringilla multicolor, Latham.
Iora melaceps, Swainson.

Show Bhugah, or *Shou Bheegee*, H. (Jerdon). Inhabits S. India; Ceylon; Deyra Doon (?).

I. typhia (Edwards, pl. 79).

SYN. Motacilla typhia, L.
Ficedula bengalensis, Brisson.

Fatikja, and *Toufik*, Beng. Inhabits Bengal; Nepal; Assam; Arracan; Tenasserim provinces; Malayan peninsula. The exceedingly common *Iora typhia* of Bengal very rarely exhibits any black about the cap and back at any season of the year; and those of the whole eastern side of the Bay of Bengal appear to be similar: but occasionally specimens are met with, which have assumed less or more of this colouring, and which are perhaps hybrids, like those between *Coracias indica* and *C. affinis*, *Treron phœnicoptera* and *Tr. Jerdoni*, and a few other analogously affined races).

I. scapularis, Horsfield (*Zool. Res. in Java*, pl. ,—the female), J. A. S. XIII. 381.

Durang Capas, Malay; *Cheetoo*, Jav. Inhabits Malay countries.

Genus IRENA, Horsfield.

I. puella (Horsfield's *Zool. Res. in Java*, pl.).

SYN. Coracias puella, Latham.

Nget-pya zak, Arracan; *Quayang*, and *Biang Kapoor*, Malay; *Bressi*, Jav. Inhabits C. and S. India; Assam; Burmah; Malay countries. *Malayan race* with lower tail-coverts reaching nearly to end of tail.

Fam. MELIPHAGIDÆ.

Subfam. ORIOLINÆ.

Genus ORIOLUS, L. (*Huldikaka*, Beng.)

O. Traillii (Gould's 'Century,' pl. 35; J. and S., *Orn. Ind. 2nd* series, pl. 26).

SYN. Pastor Traillii, Vigors.

Inhabits Himalaya; Assam; Burmah (Arracan, Tenasserim).

O. melanocephalus, L.

SYN. O. maderaspatanus, Franklin.
O. McCoshii, Tickell, J. A. S. II 577.
} the young.
O. Hodgsonii (?), Swainson.

Bania-bhou, Beng.; *Nghet-wa*, Arracan. Inhabits Bengal; Kutak; C. India; Nepal; Assam; Arracan; Tenasserim;—distinct race in Ceylon, and Malabar (?).

O. larvatus, Lichtenstein (Lev., *Ois. d' Afr.* pl. 261, 262).

SYN. O. radiatus (?), Gmelin.
O. condonguar, Temminck.
O. capensis, Swainson.
O. monachus (Gm.), apud Wagler.
O. chloris, Cuvier.

Inhabits S. Africa.

O. xanthonotus, Horsfield (*Zool. Res. in Java*, pl. ; *Pl. Col.* 214).

SYN. O. leucogaster. Reinwardt.
O. castanopterus. Blyth, J. A. S. XI. 795 (the young).

Sepong Rayate, Malay. Inhabits Malay countries.

O. chinensis, L.

Syn. O. cochinchinensis, Brisson.
O. acrorhynchos, Vigors, P. Z. S. 1831, p. 97.

Inhabits China.

O. macrourus, Blyth, J. A. S. XV. 46. Inhabits Nicobar Islands.

O. indicus, Brisson (Jerdon's *Ill. Ind. Orn.* pl. 15).

Syn. O. chinensis et cochinchinensis of India, Auctorum.
O. coronatus (?), Swainson, vel hippocrepis (?) Wagler.
Le Loriot des Indes, Buffon.

Inhabits Peninsular India ; rare in Bengal ; common in Burmese and Malay countries ; also China.

O. tenuirostris, Blyth, J. A. S. XV. 48. Inhabits————?

O. kundoo, Sykes (the young).

Syn. O. galbula apud Franklin and Sykes (the adult).
O. aureus, Jerdon's Catal.
O. galbuloides, Gould.

Peebeck, H. (Jerdon). Inhabits Hindustan generally ; nec L. Bengal.

O. galbula, L. (*Pl. Enl.* 26).

Syn. Coracias oriolus, Scopoli.

Inhabits Europe ; W. Asia ; N. Africa.

O. viridis (Gould's B. A. Vol. IV. pl. 13).

Syn. Gracula viridis and Coracias sagittata, Latham.
O. variegatus, Vieillot.
Mimeta viridis, King.
M. meruloides, Vigors and Horsfield.

Inhabits N. S. Wales.

Genus SPHECOTHERES, Vieillot.

Sph. viridis, Vieillot (Gould's B. A. Vol. IV. pl. 15).

Syn. Sph. virescens, Jardine and Selby.
Sph. australis et canicollis, Swainson.
Turdus maxillaris (?), Latham.

Inhabits Australia.

Subfam. MELIPHAGINÆ.

Genus ENTOMYZA, Swainson.

E. cyanotis (Gould's B. A. Vol. IV. pl. 68).

Syn. Gracula cyanotis, Turdus cyaneus, et Merops cyanops, Latham.

Inhabits N. S. Wales.

Genus ZOSTEROPS, Vigors and Horsfield.

Z. palpebrosus (*Pl. Col.* 292, f. 3).

Syn. Sylvia palpebrosa, Temminck.
S. annulosa, var. a, Swainson.
Z. maderaspatana (v. madagascariensis of India), auctorum (vide J. A. S. XIV. 562).

Inhabits India generally (nec L. Bengal), from the Himalaya to Ceylon ; Assam ; Arracan ; Tenasserim provinces ; Nicobar Islands.

Fam. NECTARINIIDÆ.

Shakar-Khora (i. e. 'Sugar-sucker ;') H. ; *Mon-chang*, Beng. ; *Tutika*, Cingh. ; *Pan-bweng-tsot* (*i. e.* 'Flower-pecker'), Arracan.

Genus ARACHNOTHERA, Temminck.

A. magna.

Syn. Cinnyris magna, Hodgson, Ind. Rev. 1837, p. 272 ; J A. S. XII. 981.
A. inornata of Assam apud Horsfield, P. Z. S. 1839, p. 167 ; vide J. A. S. XII. 981.

Inhabits Nepal ; Sikim ; Assam ; Sylhet ; Arracan.

A. flavigaster.

Syn. Anthreptes flavigaster, Eyton, P. Z. S. 1839, p. 105, J. A. S. XIV. 557.

Chechap Rimba or *Koleechap Pangone*, Malay. Inhabits Malayan peninsula.

A. chrysogenys, Temminck, (*Pl. Col.* 388, f. 1) ; J. A. S. XII. 981 ; XV. 43.

Syn. Certhia longirostra apud Raffles, Lin. Tr. XII. 299, (nec Latham).

Siap jantung, Malay. Inhabits Malayan peninsula ; Sumatra.

A. inornata, Temminck (*Pl. Col.* 84).

Syn. Cinnyris affinis, Horsfield, Lin. Tr. XIII. 66.

Chess, Jav. Inhabits Java.

A. modesta.

Syn. Anthreptes ? modesta, Eyton, P. Z. S. 1839, p. 105.
Ar. latirostris, Blyth, J. A. XII. 982.

Chichap Nio, Malay. Inhabits Malayan peninsula.

A. robusta, Muller (*Zool. Ind. Arch.*, t. 2, f. 1) ; described J. A. S. XV. 43, No. 6. Inhabits Sumatra.

A. longirostra (Griffith's *Transl. An. Kingd.* VII. 391, pl.)

Syn. Certhia longirostra, Latham (nec Raffles).

Prit Andun, Jav. Inhabits Java.

A. affinis, Blyth, J. A. S. XV. 43.

Syn. A. inornata apud Blyth, J. A. S. XII. 982.
Cinnyris longirostris, Jerdon, Madr. Journ. XIII. 172.

Inhabits Arracan ; Tenasserim provinces ; Malayan peninsula ; very rare in S. India.

Genus NECTARINIA, Illiger.

(*A.* With elongated middle tail-feather in the males).

N. goalpariensis (Royle's *Ill. Him. Bot.*, pl. 7), J. A. S. XII. 969.

Syn. Certhia goalpariensis, Latham.
Cinnyris Vigorsii (the male), and C. concolor (the female), Sykes, P. Z. S. 1832, pp. 98, 99.
C. miles, Hodgson, Ind. Rev. 1837, p. 273.
C. labecula, McClelland, P. Z. S. 1839, p. 167.
N. seheriæ, Tickell, J. A. S. II. 577.
N. Lathami, Jardine, Nat. Libr.

Inhabits Sub-Himalaya region ; C. and S. India ; Assam ; Sylhet ; Arracan ; Tenasserim provinces.

N. siparaja (*Pl. Col.* 126, f. 3).

SYN. Certhia siparaja, Raffles, Linn. Tr. XIII. 299.
N. mysticalis, Temminck.

Sipa Raja, Malay.

Inhabits Malayan peninsula and Archipelago.

N. Gouldiæ (Gould's 'Century,' pl. 56), J. A. S. XII. 974

SYN. Cinnyris Gouldiæ, Vigors, P. Z. S. 1831, p. 44.

Inhabits Sikim ; Sylhet ; Arracan.

N. ignicauda (*Nat. Libr., Nectariniidæ*, pl. 29) ; J. A. S. XII. 972.

SYN. Cinnyris ignicauda, Hodgson, Ind. Rev. 1837, p. 972.
C. rubricaudata, Blyth, mentioned J. A. S. XI. 192.
N. phœnicura, Jardine, Nat. Libr.

Inhabits Nepal ; Assam ; Sylhet.

N. nipalensis (*Nat. Libr., Nectariniidæ*, pl. 27) ; J. A S. XII, 974.

SYN. Cinnyris nipalensis, Hodgson, Ind. Rev. 1837, p. 273.

Inhabits S. E. Himalaya.

N. Horsfieldi Blyth, J. A. S. XII. 975.

Inhabits N. W. Himalaya.

N. saturata (*Nat. Libr., Nectariniidæ*, pl. 29) : J. A. S. XII. 976.

SYN. Cinnyris saturata, Hodgson, Ind. Rev. 1837, p. 273.
C. assamensis, McClelland, P. Z. S. 1839, p. 167.
C. Hodgsonis, Jardine, Nat. Libr.

Inhabits S. E. Himalaya ; Assam.

N. lotenia (*Nat. Libr., Necturiniidæ*, pl. 23—not good).

SYN. Certhia lotenia, L.
C. polita, Latham.
C. purpurata, Shaw.

Inhabits S. India ; Ceylon.

N. asiatica (*Nat. Libr., Nectariniidæ*, pl. 24) ; J. A. S. XII. 978.

SYN. Certhia asiatica, L.
C. mahrattensis, C. chrysoptera, C. cirrhata, et C. currucaria, Latham.
C. saccharina, Shaw.
Cinnyris orientalis, Franklin, P. Z. S. 1831, p. 122.
C. epauletta et C. strigula, Hodgson, Ind. Rev. 1837, p. 272.
C. cyaneus, Encl., Method.

Inhabits India generally ; Arracan ; Sindh.

N. malaccensis (Swainson's *Zool. Ill.* 1st series, pl. 121).

SYN. Certhia malaccensis, Scopoli.
C. lepida, Latham.
N. javanica, Horsfield.

Prit-gantil, Jav.

Inhabits Burmese and Malay countries (Ar- [illegible] Tenasserim).

N. simplex, Muller (*Zool. Ind. Arch.*, t. 8, f. 4).

SYN. N. frontalis, Blyth, J. A. S. XIV. 558.

Inhabits Malayan peninsula ; Sumatra.

N phœnicotis, Temminck (*Pl. Col.* 108. f. 1 ; 338, f. 2) ; J. A. S. XII. 979.

Inhabits Burmese and Malay countries (Tippera, Arracan, Tenasserim).

N. hypogrammica, Muller (*Zool, Ind. Arch.* t. 8, f. 3).

SYN. N. nuchalis, Blyth, J. A. S. XII. 980, and the female termed Anthreptes macularia, J. A. S. XI. 107.

Inhabits Malayan peninsula ; Sumatra : Borneo.

N. solaris, Temminck (*Pl. Col.* 347, f. 3).

Inhabits Moluccas.

N. pectoralis, Horsfield (*Pl. Col.* 138).

SYN. N. eximia, Temminck.
Certhia philippensis olivacea, Brisson.

Sri-ganti Jav. Inhabits Malayan peninsula and Archipelago ; Nicobar Islands.

N. flammaxillaris, Blyth, J. A. S. XIV. 557.

SYN. N. jugularis apud Blyth, J. A. S. XII. 979.

Inhabits Arracan ; Tenasserim.

N. zeylonica *Nat. Libr., Nectoriniidæ*, pl. 20,—not good).

SYN. Certhia zeylonica, L.
Cinnyris sola, Vieillot.
C. lepida apud Sykes (female).

Inhabits Bengal ; S. India ; Ceylon.

N. minima (*Nat Libr., Nectaraniidæ*, frontispiece.)

SYN. Cinnyris minima, Sykes, P. Z. S. 1832, p. 98.

Inhabits S. India.

N. Hasseltii, Temminck (*Pl. Col.* 376, f. 3).

SYN. N. Phayrei, Blyth, J. A. S. XI. 1008.
Certhia sperata, var., Raffles.
C. braziliana, Shaw.

Inhabits Burmese and Malay countries (Arracan, Tenasserim).

Genus DICÆUM, Cuvier.

D. cruentatum (Edwards, pl. 8).

SYN. Certhia cruentata, L. (nec apud Horsfield, Lin. Tr. XIII. 168, which = D. rubrocanum, (Tem.), Vaill, Ois. d' Afr, pl. 186).
C. coccinea, Scopoli.
C. erythronotus, Latham.

Inhabits Bengal ; Assam ; Arracan : Tenasserim ; Malayan peninsula.

D. trigonostiguta (Sonnerat, *Voy. aux Indes* pl. 117).

SYN. Certhia trigonostigma, Scopoli.
C. cantillans, Latham.
D. croceoventre, Vigors.

Beong Nalow, Malay.

Inhabits Arracan, Tenasserim ; Malayan peninsula ; Sumatra.

D. chrysorrhœum, Temminck (*Pl. Col.* 478).

SYN. D. chrysochlorum, Blyth, J. A. S. XI. 1009.

Inhabits Arracan ; Tenasserim ; Malacca.

D. concolor, Jerdon (*Ill. Ind. Orn.*, pl. 39)

Inhabits Nilgiris ; Malabar.

D. minimum.

SYN. Nectarinia minima, Tickell, J. A. S. II. 577.
Certhia erythrorhyncha, Latham (founded on the drawing of a young specimen, with colour of bill exaggerated.
D. Tickelliæ, Blyth. J. A. S. XII. 983.
Myzanthe inornata, Hodgson, Gray's Catal.

Inhabits India generally ; Ceylon ; Arracan. Common in L. Bengal.

Genus MYZANTHE, Hodgson.

M. ignipectus, Hodgson, J. A S. XII, 983.

Inhabits Nepal ; Sikkim ; Butan.

Genus PRIONOCHILUS, Strickland.

Pr. thoracicus (*Pl. Col.* 600, f. 1), J. A. S. XIV. 559.

SYN. Pipra thoracica, Temminck.
P. maculata (?), Temminck (female or young ?)

Inhabits Malayan peninsula.

Pr. percussus (*Pl. Col.* 394, f. 2), J. A. S. XIV. 559.

SYN. Pipra percussa, Temminck.
Dicæum ignicapillum, Eyton, P. Z. S. 1839, p. 105.

Nalloo, or *Nalow*, Malayan.

Inhabits Malayan peninsula ; Sumatra.

Genus PIPRISOMA, Blyth (*Semicrornis*? Gould).

P. agile, J. A. S. XIII. 314.

SYN. Fringilla agilis, Tickell, J. A. S. II. 578.
Pipra squalida, Burton, P. Z. S. 1836, p. 113.
Parisoma (?), vireoides. Jerdon, Madr. Journ. XI. 9.

Inhabits C. India ; Himalaya ? (Deyra Doon ?)

Order IV. GEMITORES.

Fam. COLUMBIDÆ.

Subfam. TRERONINÆ.

Genus TRERON, Vieillot. (*Hurrial*, H. ; *Hurtel*, Beng. ; *N'goo*, Arracan ; *Battagoya*, Cingh. ; *Poonai*, Sum.)

Sub-genus TORIA, Hodgson.

T. aromatica (*Pl. Enl.* 163).

SYN. Columba aromatica, C. curvirostris, and (the female).
C. tannensis, Gmelin.
Poonai ubar, Sum. (Raffles.)

Inhabits Eastern Archipelago.

Var. *T. nipalensis*, Hodgson, *As. Res.* XIX ; 164 ; J. A. S. XIV, 847. *Thoria* (*i. e.*, 'beaked'), Nepal ; *Krocha*, Malay.

Inhabits Nepal ; Assam ; Arracan ; Tenasserim provinces ; Malayan peninsula ; rare in L. Bengal.

T. Capellei (*Pl. Col.* 143).

SYN. Columba Capellei, Temminck.
Vinago giganteus, Vigors. Zool. App. to Lady Raffles's Biog. of Sir St. Raffles, p. 674.
Tr. magnirostris, Strickland, Ann. Mag. N. H. 1844, p. 115.

Inhabits Malayan peninsula ; Sumatra.

Subgenus TRERON, Vieillot.

Tr. viridifrons, Blyth, J. A. S. XIV. 849.

Inhabits Tenasserim provinces.

Tr. Phœnicoptera; (Gould's 'Century,' pl. 18 ; but the feet should have been coloured brilliant yellow) ; J. A. S. XIV. 849.

SYN. Col. phœnicoptera Latham.
C. militaris, Temminck.
C. Hardwickii, Gray.

Inhabits Bengal, Assam, Sylhet, Nepal, and all Upper India, southward to C. India, where mingled much with the next race.

Tr. chlorigaster, Blyth, J. A. S. XII. 167 ; XIV. 850.

SYN. Tr. Jerdoni, Strickland, Ann. Mag. N. H. 1844, p. 167.
Tr. phœnicoptera v. militaris of S. India, Auctorum.

Inhabits Peninsula of India ; rare in L. Bengal.

Tr. bicincta (Jerdon's *Ill. Ind. Orn.* pl. 21) ; J. A. S. XIV. 851.

SYN. Vinago bicincta (the male) and V. unicolor (the female), Jerdon, Madr. Journ. XII. 13, 14.
V. vernans, var., Lesson's Traité.

Inhabits India generally ; Ceylon, Nepal, Assam, Sylhet, Arracan, Tenasserim.

Tr. viridis (*Pl. Enl.* 138 ; J. A. S. XIV. 851.

SYN. Columba viridis Scopoli.
C. vernans, Gmelin.
C. purpurea, Latham.

Pouye, Malay. Inhabits Malayan peninsula and Archipelago.

Tr. chloroptera, Blyth, J. A. S. XIV. 852.

Inhabits Nicobar Islands.

Tr. malabarica (*Nat. Libr. Columbidœ.* pl. 1) ; Jerdon's *Ill. Ind. Orn.*, Art. *Tr. bicincta* ; J. A. S. XIV. 852.

SYN. Vinago aromatica (the male), and V affinis ; (the female), Jerdon. Madr. Journ. XII, 13,
Columba pompadora ? Gmelin (founded on Brown's 'Illustrations,' pl. 19, 20).

Inhabits S. India; Ceylon? rare in L. Bengal; common in Assam, Sylhet, Arracan, and Tenasserim.

Tr. Olax (*Pl. Col.* 241).

Syn. Columba olax, Temminck.

Sembooan, Malay. Inhabits Malay countries.

Subgenus SPHENOCERCUS, G. R. Gray.

Sph.—cantillans (Gould's 'Century,' pl. 57).

Syn. Vinago cantillans, Blyth, J. A. S. XII. 166 (cage variety).
V. sphenura, Vigors, P. Z. S. 1841, p. 173.
Columba aromatica, var. A. Latham (cage variety).

Kokla, or *Kokhela*, H. Inhabits Himalaya.

Sph. apicauda.

Syn. Treron apicauda, Hodgson, Gray's Catal.; J. A. S. XIV. 854.

Inhabits S. E. Himalaya; Assam.

Sph. oxyura (*Pl. Col.* 240).

Syn. Columba oxyura, Temminck.
Sphenurus semitorquatus, Swainson.

Inhabits Malay Countries.

Genus PTILINOPUS, Swainson.

Pt. melanocephalus (*Pl. Enl.* 214).

Syn. Columba melanocephala, Pennant.

Jowan Bondol, Jav. Inhabits Java.

Pt. jambu (Tem. *Pigeons*, *t.* 27, 28.

Syn. Columba jambu, Gmelin.

Paonag Gadang, Malay; *Poonai Jambu*, Sum. Inhabits Malayan peninsula; Sumatra.

Pt. purpuratus (Temminck, *Pigeons*, *t.* 24); vide J. A. S. XII. 178 (*bis*).

Syn. Columba purpurata, Latham.
C. Forsteri, Desmarest.
C. kurukuru, Bonnaterre.

Inhabits Ladrones, &c.

Pt. ? Inhabits Navigators' Islands.

Genus CARPOPHAGA, Selby. (*Dukul*, or *Dunkul*, H.)

C. sylvatica; vide J. A. S. XIV. 856.

Syn. Columba sylvatica, Tickell, J. A. S. II, 581.
Carp. ænea of India, Auctorum.

Dunkul, H.; *Soona Kubutra*, Uria; *Pyoonmadee*, Arracan; *Pagam*, Sumatra. Inhabits C. and S. India; Assam; Sylhet; Arracan; Tenasserim; Malayan peninsula; Sumatra; Java? Variety in Nicobar Islands.

C. pusilla, Blyth, J. A. S. XVIII. Inhabits Nilgiris.

C. perspicillata (*Pl. Col.* 246).

Syn. Columba perspicillata, Temminck.

Inhabits Java; Moluccas.

C. insignis, vide J. A. S. XIV. 855.

Syn. Ducula insignis, Hodgson, As. Res. XVIII. 162.
C. cuprea, Jerdon, Madr. Journ. XII, p. 12 (subsequently referred to Col. badia, Raffles, ibid. XIII, 164).

Inhabits S. E. Himalaya; Assam; Arracan; Nilgiris.

C. bicolor (Sonn. *Voy. t.* 103.)

Syn. Columba bicolor, Scopoli.
C. alba, Gmelin.
C. Littoralis, Temminck.

Barung dara luhut, Jav. Inhabits Malayan peninsula and Archipelago; Nicobar Islands.

Subfam. COLUMBINÆ.

Subgenus ALSOCOMUS, Tickell.

A. Hodgsonii.

Syn. Columba Hodgsonii, Vigors, P. Z. S. 1839, p. 16.
C. nipalensis, Hodgson, J. A. S. V. 122; XIV, 867.

Inhabits Himalaya.

A. puniceus, Tickell, J. A. S. XI, 462; XII, 867, 878. Inhabits C. India; Assam; Arracan; Tenasserim.

P. torquatus (*Pl. Enl.* 316).

Syn. Columba palumbus, L.

Inhabits Europe: variety in N. W. Himalaya.

P. pulchricollis.

Syn. Columba pulchricollis, Hodgson, vide J. A. S. XIV. 866.

Inhabits S. E. Himalaya.

P. Elphinstonei (Jerdon's *Ill. Ind. Orn.*, pl. 48).

Syn. Ptilinopus Elphinstonei, Sykes, P. Z. S. 1832, p. 149.

Inhabits Nilgiris.

Sub-genus COLUMBA (as restricted).

C. livia, Brisson (*Pl. Enl.* 510). *Jalalaya*, H.; *Parwi*, Mahr.; *Gola* of the dealers. Inhabits Europe; and variety in C. and S. Asia.

C. leuconota, Vigors (Gould's 'Century,' pl. 59), J. A. S. XIV, 864. Inhabits Himalaya, near snow region.

Genus MACROPYGIA, Swainson.

M. Reinwardtii (*Pl. Col.* 248).

Syn. Columba Reinwardtii, Temminck.

Inhabits Moluccas, &c.

M. rufipennis, Blyth, J. A. S. XV. 371. Inhabits Nicobar Islands.

M. amboinensis.

Syn. Columba amboinensis, L.

Derkuku-sopa, Jav. Inhabits Tenasserim provinces; Java; Moluccas.

M. leptogrammica (*Pl. Col.* 248); J. A. S. XIV. 869.

SYN. Columba leptogrammica, Temminck.
Coccyzura tusalia, Hodgson, J. A. S. XIII. 936.

Inhabits S. E. Himalaya.

Genus GEOPELIA, Swainson.

G. albiventris, Blyth (*Report on Australian Vertebrata in Mus. As. Soc*)

SYN. Columba Maugei (?), Temminck.

Inhabits Timor.

G. striata (Temminck, *Pigeons*, *t.* 47).

SYN. Columba striata et C. sinica, L.
C. malaccensis, Gmelin.
C, fowat, Bonnaterre.
C. bantamensis, Sparrman.

Katitiran, Sum.; *Berkutut*, Jav. Inhabits Malayan peninsula and archipelago.

Genus TURTUR, Selby. *G'hugu*, Beng.; *Fachta*, H.; *Cobeya*, Cingh.; *Gya*, Arracan; *Balam, or Terkuku*, Mal., Sum.; *Puter*, Jav.

T. risorius (Temminck, *Pigeons*, *t.* 44); vide J. A. S. XIV. 870.

SYN. Columba risoria, L.
T. erythrophrys, Swainson, apud Strickland.

Dhor Factah, H.; *Kalhak, Kahalak, Kahalaki*, or *Paur Ghughu*, Beng. Inhabits N. Africa; S. E. Europe ?; S. Asia.

T. bitorquatus (Temminck, *Pigeons t.* 40).

SYN. Columba bitorquata, Temminck.

Puter-genni, Jav. Inhabits Java; Moluccas; Timor.

T. humilis (*Pl. Col.* 258, 259).

SYN. Columba humilis, Temminck.
C. risoria (minor), Franklin—the female.
Asiatic Pigeon, Latham.

Seroti Fachtah, H.; *Golabi* (or 'rose-coloured'), *Tamakhuri* (or 'copper cup'), and *Itkuiya* (or 'brick coloured'), *Ghughu*, Beng.; *Gyolengbya*, Arracan. Inhabits India generally; Arracan.

T. chinensis (Sonnerat's *Voy. aux Indes*, *t.* 102); vide J. A. S. XIV. 875.

SYN. Columba chinensis, Scopoli.
C. risoria, var B, Latham.

Inhabits China.

T. suratensis (Temminck, *Pigeons t.* 43); J. A. S. XIV. 874.

SYN. Columba suratensis, Latham.
C. tigrina, Temminck.
C. turtur, L. var., figured in Griffiths' Trans. Ann. Kingd., VIII. 290.

Chitla, Upper Provinces; *Chitroka Fachtah*, H.; *Chanral Ghughu*, or *Telia Ghughu*, B.; *Kangskiri*, Bhagulpur; *Cobeya*, Cingh.; *Laybiouk*, Arracan. Inhabits India generally, Burmese and Malay countries.

T. orientalis (*Pl. Col.* 550); J. A. S. XIV. 875.

SYN. Columba orientalis, Latham.
C. meena. Sykes, P. Z. S. 1832, p. 149.
C. gelastis, Temminck.
C. agricola, Tickell, J. A. S. II, 581.
C. ferrago, Eversmann.
C. turtur, var., Raffles ?

Balam, or *Terkuku*, Sum., Raffles; *Kulla Fachtah*, H.; *Sam Ghughu*, Beng.; *H'hulga*, Mahratta; *Gyo-pein-doo-ma*, Arracan. Inhabits India generally; Burmah; E. Malasia; N. Asia in summer.

T. senegalensis (Temminck, *Pigeons t.* 45); J. A. S. XIV. 873.

SYN. Columba senegalensis, L.
C. cambaiensis, Gmelin.
C. maculicollis, Wagler.

Tortru Fachtah, H. Inhabits India generally (nec alluvium of L. Bengal), W. Asia; Turkey; N. Africa.

Genus CHALCOPHAPS, Gould.

Ch. indicus (Edwards, pl. 14); J. A. S. XIV. 859.

SYN. Columba indica, L.
C. pileata, Scopoli.
C. javanica (?), cyanocephala, et albicapilla, Gmelin.
C. cyanopileata, et griseocapilla, Bonnaterre.
C. superciliaris, Wagler.

Ram Ghughu and *Rhaj Ghughu*, Beng.; *Nil Cobaya* or *Nillo Cobaya* (*i. e.* 'blue dove') Cingh.; *Gyo-ngyo*, Arracan; *Takoat*, and *Poona Tanna*, Malay; *Limoo-an*, Sum.; *Delimu*, or *Glimukan*, Jav.

Inhabits India; Burmese and Malay countries.

Subfam. GOURINÆ.

Genus CALÆNAS, G. R. Gray.

C. nicobarica (Edwards, pl. 339; *Pl. Enl.* 491).

SYN. Columba nicobarica, L.
C. gallus, Wagler.

Inhabits Andaman and Nicobar Islands; Mergui Archipelago; Malayan peninsula.

Order RASORES.

Fam. MEGAPODIDÆ.

Genus MEGAPODIUS, Quoy and Gaymard.

M. nicobariensis, Blyth, J. A. S. XV. 52, 372. Inhabits Nicobar Islands.

Fam. PHASIANIDÆ.

Subfam. PAVONINÆ.

Genus PAVO, L.

P. *cristatus*, L. (*Pl. Enl.* 433, 434).

SYN. P. assamensis, McClelland, Ind. Rev. 1838, p. 513.

Mayura B.; *Maur*, H.; *Mra*, or *Marak*, Sum. (Raffles).

Inhabits India generally; Assam; Chittagong; Burmah? Sumatra.

P. muticus, L. Vieillot, (*Gal. des Ois. t.* 202).

SYN. P. spiciferus, Vieillot.
P. Aldrovandi, Wilson.
P. javanicus, Horsfield.
P. japonensis, Brisson.

Oo-doung, Arracan; *Pegu Mayura* B.; *Merak*, Jav. Inhabits Burmese and Malay countries; northward to Arracan.

Genus MELEAGRIS, L.

M. gallapavo, L. (Wilson's *Am. Orn.*, Bonap. *Cont.* p. 9).

SYN. M. sylvestris, Vieillot.
Gallopavo sylvestris, Catesby.

Peru, B., H. Inhabits N. America. *A.* Indian domestic variety, male.

Subfam. POLYPLECTRONINÆ.

Genus CERIORNIS, Swainson.

C. melanocephala (Gould's '*Century*,' pl. 63, 64, 65).

SYN. Satyra melanocephala et Phasianus nipalensis, Gray.
Tragopan Hastingsii, Vigors.

Jewar, *Jewari*, Simla. Inhabits N. W. Himalaya.

C. satyra (Gould's '*Century*,' pl. 62).

SYN. Meleagris satyra, L.
Satyra Lathami et Pennantii, Gray.
S. cornuta, G. R. Gray.

Dafia, Beng. (Bhotea?) Inhabits S. E. Himalya (Nipal, Sikim).

C. Temminckii (Hardwicke's *Ill. Ind. Zool.*)
SYN. Satyra Temminckii, Gray.

Inhabits China.

Genus ITHAGINIS, Wagler.

I. cruentus (Hardwicke's *Ill. Ind. Zool.* Tem. *Pl. Col.* 332).

SYN. Phasianus cruentus, Wagler.
Ph. Gardnerii, Hardwicke (female).

Inhabits Nepal.

Genus GALLOPERDIX, Blyth. (Spur-fowl of sportsmen).

G. zeylonensis (Pennant's *Ind. Zool.* pl. 7).

SYN. Tetrao zeylonensis, Gmelin.
T. bicalcaratus, Pennant.

Aban or *Saban Cuccula*, Cingh. Inhabits Ceylon.

G. lunulosa (Hardwicke's *Ill. Ind Zool.*; Delessert, *Voy. aux. Indes*, pl. 10; Jerdon, *Ill. Ind. Orn.*, pl. 42, the female).

SYN. Perdix lunulosa, Valenciennes.
P. et Plectrophorus Hardwickii, Gray.
Francolinus nivosus Delessert.

Jitta Kodi, Telugu. Inhabits Rajmahl; C. W.; and S. India.

G. spadiceus (Hardwicke's *Ill. Ind. Zool.*, the female).

SYN. Tetrao spadiceus, Gmelin.
T. madagascariensis, Scopoli.
Polyplectron Northiæ, Gray (the female).

Inhabits C. and S. India.

Genus POLYPLECTRON, Temminck.

P. *chinquis*, Temminck (*Pl. Col.* 539), apud G. R. Gray.

SYN. P. albo-ocellatum, Cuvier.
P. lineatum, Gray, the female.
Pavo tibetanus, L.
Peacock Pheasant from China (?), Edward's, pl. 67, 69.

Doung-kula, Arracan: *Mo-nuwur*, and *Day-o-da-huk*. Inhabits Assam, Sylhet, Arracan, Tenasserim.

P. bicalcaratum (Hardwicke's *Ill. Ind. Zool.*)

SYN. Pavo bicalcaratus, L.
P. malaccensis, Scopoli.
P. Hardwickii, Gray.

Kuaow Charman, Malay, Sum. Inhabits Malayan peninsula; Sumatra.

Genus ARGUS, Temminck.

A. giganteus, Temminck (Vieillot, *Gal. des Ois.*, *t.* 203; Jardine and Selby, *Ill. Orn.*, *n. s.*, pl. 6).

SYN. Phasianus argus, L.
A. pavoninus, Vieillot.
Malay Peacock, Latham.

Kuaow, Malay; Sum. Inhabits Malayan peninsula; Sumatra. (Nec Sylhet, as stated by Hardwicke, *MS.* in Brit. Mus.)

Subfam. PHASIANINÆ.

Genus GALLUS, L. (apud G. R. Gray). *Murgh*, female *Murghi*, H.: *Ayam*, Malay.

G. ferrugineus.

SYN. Tetrao ferrugineus, Gmelin.
G. bankiva, Temminck.
Phasianus gallus, L.,—Domestic varieties (among which are G. giganteus, morio, crispus, ecaudatus, pumilus, plumipes, cristatus, pentadactylus, pusillus, lanatus, &c.)
Hackled Partridge, Latham—the hen.

Ban Murgh, or *Jungli Murgh*, H.; *Ban Kokra*, of Santals; *Ayam utan*, Malay; *Breoga*, Sum.; *Bengkiwo*, or *Bekikko*, Java. Inhabits Jungly districts of all N. India, from valleys of sub-Himalayan region southward to the Vindhyian range and the N. Circars; Assam: Burmese and Malay countries: Turkestan? (Vide J. A. S. VIII, 1007). A. Indian race, with white ear-lappet in living specimens (vide *Ann. Mag. N. H.* XX, 389). B. Pale sub-Himalayan race (vide *Ann. M. N. H.*, *G. Stanleyi*, Gray, (Hardwicke's *Ill. Ind. Zool.*,—the hen).

SYN. G. Lafayettei, Lesson.
G. lineatus, Blyth, mentioned J. A. S. XVI. 387.

Welle Cuccula, Cingh. Inhabits Ceylon.

G. Sonneratii, Tem. (*Pl. Col.* 232, 233).

SYN. Phasianus gallus apud Sonnerat.
Ph. indicus, Leach.

Jungli Murgh, S. India. Inhabits peninsula of India.

Genus EUPLOCOMUS, Temminck.

Eu. ignitus (Macartney's *Emb. to China*, pl. 13).

SYN. Phasianus ignitus, Shaw.
Gallus Macartneyi, Temminck.
Ph. rufus, Raffles (the female).

Jugang, Sum. Inhabits Malayan peninsula; Sumatra.

Eu. nycthemerus (*Pl. Enl.* 123, 124).

SYN. Phasianus nycthemerus, L.
Nycthemerus argentatus, Swainson.

Inhabits China.

Eu. lineatus (Belanger, *Voy. Ind. Orient. Zool.*, *pl.* 8, 9).

SYN. Phasianus lineatus, Latham.
Ph. Rrynaudii, Lesson.
Ph. fasciatus, McClelland, Calc. Journ. N. H. II. 146.

Yeet, Arracan. Inhabits Burmese countries. (Arracan, Tenasserim. Pegu).

Eu. Horsfieldi (Gray's *Ill. Gen. Birds*, pl.).

SYN. Gallophasis Horsfieldi, G. R. Gray.

Mut'hura; Purple Pheasant of Europeans. Inhabits Assam; Sylhet.

Eu. melanotus, Blyth, (noticed J. A. S. XVII, 694). *Kalij Pheasant* of Darjiling. Inhabits Sikkim.

Eu. albocristatus, (Gould's '*Century*,' pl. 66, 67).

SYN. Phasianus albocristatus, Vigors.
Ph. Hamiltonii, Gray (Hardw. Ill. Ind. Zool.)

Kalij of Simla, Masuri, &c.; also *Murgh-Kalij*, and *Kukera*. Inhabits N. W. Himalaya.

Eu. erythropthalmos (Hardw. *Ill. Ind. Zool.*—the female).

SYN. Phasianus erythropthalmos, Raffles.
Ph. purpureus, Gray (the female).

Pagar, Malay; *Mira Mata*, Sum. Inhabits Malayan peninsula; Sumatra.

Genus PHASIANUS, L.

Subgenus PUCRASIA, G. R. Gray.

P. macrolopha (Gould's '*Century*,' pl. 69, 70).

SYN. Satyra macrolopha, Lesson.
Ph. pucrasia, Vigors, J. E. Gray.
Ph. pucrasse, Gray.
Tragopan Duvaucelei, Tomminck.

Plas, Pukras, Koklas. Inhabits N. W. Himalaya (rare in Nepal.)

Subgenus PHASIANUS, as restricted.

Ph Wallichi (Gould's '*Century*,' pl. 68.

SYN. Lophophorus Wallichii, Hardwicke.
Phasianus Stacei, Vigors.

Chir, or *Cheor*, *Banchil*, *Herril*. Inhabits N. W. Himalaya.

Ph. torquatus, Gmelin (Hardw. *Ill. Ind. Zool*).

SYN. Ph. albotorquatus, Bonnaterre.

Inhabits China.

Ph. colchicus, L. (*Pl. Enl.* 121; 122). *Kurg-kaol*, Pushtu. Inhabits W. Asia (Abundant—though somewhat different from the European bird e on the Elburz Chain, N. of Persia). Now, common in Europe.

Subgenus THAUMALEA, Wagler.

Th. Amherstiæ (G. R. Gray, *Ill. Gen. Birds*, pl. 125).

SYN. Phasianus Amherstiæ, Leadbeater.

Inhabits bordering regions of China and Tibet.

Genus LOPHOPHORUS, Temminck.

L. impeyanus (Gould's '*Century*,' pl. 60, 61).

SYN. Phasianus Impeyanus, Latham.
Ph. curvirostris, Shaw.
Lophophorus rufulgens, Temminck.

Monal, or *Ghur Monal*; *Murgh-i-zari* ('Golden Fowl'); *Murgh Muhshor*: male, *Ratkap*; female, *Monali*. Inhabits Himalaya generally: Kaffiristan (Burnes).

Subfam. TETRAONINÆ.

Genus TETRAOGALLUS, Gray.

T. himalayensis, G. R. Gray (Hardw. *Ill. Ind. Zool.*; Jardine and Selby, *Orn. Ill.* pl. 141, nec pl. 76, nec G. R. Gray, *Ill. Gen. Birds*). These have since been united by Mr. G. R. Gray; but of some dozens of specimens from Afghanistan eastward to Sikim, all were quite similar, and corresponded neither with the Persian species (*T. caucasica*, v. *Nigelli*), nor with the Altai species (*T. altaica*) as described, nor very decidedly with the figure published by Messrs. Mitchell and G. R. Gray, which should represent a fourth species.

SYN. T. Nigelli of Himalaya, Auctorum.

Inhabits Himalaya; Hindu Kosh; Afghanistan.

Genus LERVA, Hodgson.

L. nivicola, Hodgson.

SYN. Perdix lerva, Hodgson, P. Z. S. 1803, p. 107.

Quoir Monal. Snow Partridge of sportsmen. Inhabits Snow-region of Himalaya.

Subfam. PTEROCLINÆ.

Genus PTEROCLES, Temminck. (*Burtitur*, H. *Whistling Grouse*, or *Rock Pigeons* of sportsmen in India).

Pt. arenarius (*Pl. Col.* 52, 53).

SYN. Tetrao arenarius, Pallas.
Perdix aragonica, Latham.
Bonasa pyrenaica, Brisson.

Buklit, H.; *Khyrgut*, or *Sya-rim*; also *Tuturuk* (expressive of cry), and *Bovra Kurra* ('black breast'), Afghanistan. *Sand Grouse* of sportsmen. Inhabits desert regions of Asia, S. Europe, and N. Africa.

Pt. fasciatus (Jerdon's *Ill. Ind. Or*p, pl. 10, 36).

SYN. Tringa fasciata, Scopoli.
Tetrao indicus, Gmelin.
Perdix indica, Latham.
Œnas indicus et bicinctus, Vieillot.
Pterocles quadricinctus, Temminck.

Hundsgri, H.; *Polunkar*, Telugu; *Kelkudari* (Rock Partridge), Tamul. *Painted Grouse* of sportsmen. Inhabits Hindustan generally.

Pt. alchata (*Pl. Enl.* 105, 106).

SYN. Tetrao alchata, L.
T. caudacutus, Gmelin.
T. chata, Pallas.
Œnas cata, Vieillot.
Pt. caspius, Menetries.

Inhabits middle Asia; Afghanistan; Syria; Spain; N. Africa.

Pt. exustus, Temminck (*Pl. Col.* 354, 360).

SYN. Pt. senegalensis, Lichtenstein.

Bur Tetur and *Kumar Tetur*, H.; *Buttator*, Sindh; *Sassinia*, Afghanistan. Inhabits Hindustan; M. and W. Asia; S. Europe; N. Africa.

Subfam. PERDICINÆ.

Titr or *Tetur* (root of *Tetrao*), H.; *Kha* Arracan.

A. Guinea-fowl.

Genus NUMIDA, L.

N. meleagris, L.

SYN. N. galeata, Pallas.

Inhabits Africa. The domestic adults are typically coloured.

Genus FRANCOLINUS, Brisson. Stephens.

Div. 1. With stouter bills.

Fr. pintadeus.

SYN. Tetrao pintadeus, Scopoli.
T. madagascariensis, Gemelin, (nec Scopoli)

Pintado Partridge, Mauritius. Inhabits Mauritius.

Fr. sinensis.

SYN. Tetrao sinensis, Osbeck.
T. perlatus, Gmelin.
Perdix Phayrei, Blyth, mentioned J. A. S. XII. 1011.

Inhabits Indo-China; China.

Div. 2. With less robust bills.

Fr. vulgaris, Stephens (*Pl. Enl.* 147, 148).

SYN. Tetrao francolinus, I.

Kala Tetur, H. · *Mushki Tetur*, Urdu: *Durraz* (Burnes). *Black Partridge* of sportsmen. Inhabits N. India; Afghanistan; Persia; Syria; Cyprus; Sicily.

Fr. pictus, (Jardine and Selby, *Orn. Ill.* pl. 50).

SYN. Perdix picta, Jardine and Selby.
P. Hepburnii, Gray, Hardw. Ill. Ind. Zool.

Painted Partridge of sportsmen. Inhabits peninsula of India, where replacing Fr. vulgaris.

D. Rock Partridges.

Genus CACCABIS, Boie.

C. chukar (Gould's '*Century*,' pl. 71).

SYN. Perdix chukar, Gray.
Chacura pugnax, Hodgson, Madr. Journ. 1837, p. 305.

Chukor, H. (from voice; *Kulk*, or *Kirk*. Pushtu. Inhabits Himalaya; Afghanistan.

E. Ordinary Partridges.

Genus PERDIX, Brisson.

P. gularis, Tem. (Hardw. *Ill. Ind. Zool.*) *Jungli Titr*, H. *Wood Partridge*, and *Bengal Chikor* of sportsmen. Inhabits Banks of Ganges.

P. pondiceriana (*Pl. Col.* 213; Hardw. *Ill. Ind. Zool*).

SYN. Tetrao pondicerianus, Gmelin.
Perdix orientalis, Gray.

Gora Titur, H. *Grey*, *Common*, or *Scavenger Partridge* of sportsmen. Inhabits India generally; Ceylon, never on the E. side of the Bay of Bengal.

Genus RHIZOTHERA, G. R. Gray.

Rh. curvirostris (Hardw, *Ill. Ind. Zool.*—the female).

SYN. Tetrao curvirostris, Raffles.
Perdix longirostris, Temminck.

Janting, Sum. Inhabits Malayan Peninsula; Sumatra.

F. Wood Partridges.

Genus ARBORICOLA, Hodgson.

A. torqueola (*Pl. Col.* 462, 463 ; Hardw. *Ill. Ind. Zool.*—male.

Syn. Perdix torqueola, Valenciennes.
P. megapodia, Temminck.
P. olivacea, Gray.

Peura, *Ban Tetra*, N. W. Himalaya. *Green* or *Hill Partridge* of sportsmen. Inhabits Himalaya.

A. rufogularis, Blyth, J. A. S. XVIII, Inhabits Sikim at a lower altitude than the preceding race.

A. atrogularis, Blyth, J. A. S. XVIII, Inhabits Hill regions of Assam, Sylhet, and Arracan.

A. (?) *Charltoni.*

Syn. Perdix Charltoni, Eyton, Ann. Mag. N. H. XVI. 230.

Inhabits Penang.

Genus ROLLULUS, Bonnaterre.

R (?) *ocellatus* (Hardw. *Ill. Ind. Zoll.*)

Syn. Tetrao ocellatus, Raffles, Lin. Tr. XIII, 322.
Perdix oculea, Temminck.

Troong, Sum. Inhabits Tenasserim provinces ; Malayan Peninsula ; Sumatra.

R. cristatus (*Pl. Col.* 350, 351).

Syn. Columba cristata, Gmelin.
Phasianus roulroul, Scopoli.
Perdix coronata, Latham.
Tetrao porphyrio, Shaw.
T. viridis, Gmelin—female.

Soal, *Bestum*, Malay ; *Beniol*, Sum. Inhabits Tenasserim provinces ; Malayan peninsula ; Sumatra.

R. niger (Belanger's *Voyage*, *t.* 7, male,—Hardw. *Ill. Ind. Zool.*,—female.)

Syn. Cryptonyx niger, Vigors, Zool. Journ. IV. 349. } Male.
C. Dussumieri, Lesson. } Male.
C. Ferrugineus, Leadbeater, Lin. Tr. XVI. 349. } Female.
Perdix æruginosa, Eyton, P. Z. S. 1839, p. 106. } Female.

Hole, Malay. Inhabits Malayan peninsula ; Sumatra.

G. Dwarf Partridges.

Genus PERDICULA, Hodgson. *Bush Quails* of Sportsmen.

P. asiatica (*Trans. Zool. Soc.* II, pl. 3,—not good).

Syn. Coturnix pentah, Sykes.
Perdix asiatica et cambaiensis (?), Latham.

Lowa, H. *Common Bush Quail* of Sportsmen : *Rock Quail*, S. India. Inhabits India generally.

P. argoondah (*Trans. Zool. Soc.* II, pl. 2,—not good).

Syn. Coturnix argoondah, Sykes.
Perdix rubiginosa (?), Valenciennes.

Goerza, H. *Forest Quail.* Inhabits S. India.

I. Quails. *Buttair*, H.

Genus COTURNIX, Mœrrbing.

Sub-genus COTURNIX, Gould.

C. communis, Bonnaterre (*Pl. Enl.* 170.

Syn. Tetrao coturnix. L.
C. major, Brisson.
C. dactylisonans, Temminck.
C. europæus, Swainson.
C. vulgaris, Jardine.

Ghaghus, H. (Jerdon). *Common Quail* of sportsmen. Inhabits Europe, Asia, Africa : common in India (nec Malasia),

C. coromandelica (*Pl. Col.* 35.)

Syn. Tetrao coromandelicus, Gmelin.
C. textilis, Temminck.

Rain Quail of sportsmen. Inhabits India generally.

C. chinensis. (Gould's *B. A.* Vol. V. 92).

Syn. Tetrao chinensis, L.
T. manillensis, Gmelin.
Coturnix philippensis, Brisson.
C. excalfatoria, Temminck.
C. flavipes, Blyth, J. A. S. XI. 808.—the female.

Pikau, Malay ; *Chaun-chan*, China ; *Painted Quail* of sportsmen. Inhabits S. E Asia and its islands ; Australia. Common in the Malay countries ; less so in Bengal ; rare in S. India ; Ceylon.

C. (?). *erythrorhyncha*, Sykes, (*Zool. Trans.* Vol. II. pl. 1). *Kohui Lowa*, H. (Jerdon). *Red-billed* or *Black Quail* of Nilgiris. Inhabits Nilgiris ; Malabar.

Fam. TINAMIDÆ (?)

Subfam. TURNICINÆ.

Genus TURNIX, Bonnaterre. *Button Quails* of sportsmen.

T. ocellatus (Sonn. *Voy. t.* 23).

Syn. Oriolus ocellatus, Scopoli,
Tetrao luzoniensis, Gmelin.
Hemipodius thoracicus, Temminck.
H. atrogularis, Eyton, (the female), and H. taigoor apud Eyton (the female), P. Z. S. 1839, p. 107.
H. pugnax (?), Temminck (pl. Col. 60, 2), apud G. R. Gray, Brit. Mus. Catal. and Strickland, Ann. Mag. N. H. XX. 135.

Pochio, Malay ; *Puyu*. Sum. ; *Drigul*, male, *Gomma*, female, Java. Inhabits Himalaya (Almorah, Nepal, Sikim) ; Burmese and Malay countries ; Philippines. *N B.* Himalayan, Burmese and Malayan examples are perfectly similar.

Rufous variety from S. India and Ceylon (*Zool. Trans.* Vol. II. pl. 4).

SYN. Hemipodius taigoor, Sykes,—the male, and H. pugnax apud Sykes and Jerdon,—the female.

Small pale variety common in L. Bengal. (*T. bengalensis,* Blyth). *Salni gundru* Muttra.

T. Dussumieri (*Pl. Col.* 454, f. 2).

SYN. Hemipodius Dussumieri, Temminck.
H. maculosus (?). Temminck, apud G. R. Gray, Brit. Mus. Catal.
T. tanki, Buch. Hamilton, described J. A. S. XII. 181, (bis).

Bustard Quail of sportsmen. Inhabits India generally ; Arracan.

T. Sykesi, A. Smith, *Zool. Africa,* art. *T. lepurana.*

SYN. Ortygis Dussumieri apud Jerdon, Catal., and J. A. S. XI. 804.

Chimnaj ? H. (Muttra); *Tattu Buttera,* Sindh. Inhabits India generally : (L. Bengal ?) ; Sindh.

Order V. CURSORES.

Fam. CASUARIDÆ.

Genus CASUARIUS, L.

C. galeatus, Vieillot (*Pl. Enl.* 313 ; *Menagerie du Museum,* pl.).

SYN. Struthio casuarius, L.
C. emu, Latham.

Inhabits Moluccas.

Genus DROMAIUS, Vieillot.

Dr. Novæ Hollandiæ (Gould's B. A. Vol. VI. pl. 1).

SYN. Casuarius novæ hollandiæ, Latham.
Dr. ater, Vieillot.
Dromiceus australis, Swainson.
Dr. emu, Stephens.

Inhabits Australia.

Fam. STRUTHIONIDÆ.

Genus STRUTHIO, L.

Str. camelus, L. (*Pl. Enl.* 547 ; *Menagerie du Museum,* pl.). *Shutur-murgh* ('Camel-fowl), H. Inhabits Africa ; Arabia ?

Order VI. GRALLATORES.

Tribe PRESSIROSTRES.

Fam. OTIDÆ.

Genus OTIS, L.

Subgenus HOUBARA, Bonap.

H. Macqueenii (Hardwicke's *Ill. Ind. Zool.*) J. A. S. XVI. 786.

SYN. Otis Macqueenii, Gray.

Tilaor, H. ; *Dugdaur,* Pushtu, *Hurriana Floriken* of sportsmen. Inhabits C. and W. deserts of India ; Afghanistan.

Subgenus EUPODOTIS, Lesson.

Eu. Edwardii (Hardwicke's *Ill. Ind. Zool.* ; Gould's *Century,* pl. 72).

SYN. O. Edwardii, Gray.
O. nigriceps, Vigors.
O. luconiensis, Vieillot (apud G. N. Gray).

Tokdar, H. Inhabits Hindustan ; Luzon ?

Subgenus. SYPHEOTIDES, Lesson.

S. bengalensis (Gould's *Century,* pl. 73, 74, 75).

SYN. Otis bengalensis, Gmelin.
O. himalayana, Vigors.
O. deliciosa, Gray.

Charj, or *Ablak Charj,* H. *Floriken* of N. India. Inhabits Bengal, Assam, Nepal ; N. India generally.

S. auritus (Jardine and Selby, *Orn. Ill.* pl. 40, 92 ; Jerdon's *Ill. Ind. Orn.*, pl. 33).

SYN. Otis aurita, Latham.
O. fulva, Sykes, male in non-breeding dress.
O. atriceps, Gray.
O. indica, Shaw.

Charj, H. (S. India) ; *Tun-mor,* Mahr. ; *Kunnoul,* Can. *Floriken* of S. India : *Likh* of Bengal. Inhabits India generally.

INCERTÆ SEDIS,

Fam. GLAREOLIDÆ.

Genus GLAREOLA, Brisson.

Gl. orientalis, Leach (apud G. R. Gray, *Lin. Tr.* XIII, p. 132, pl. ; Gould's B. A. Vol. VI. pl. 23 ;—figures and descriptions bad, if the species be correctly assigned).

SYN. Gl. pratincola vel torquata of India, auctorum.

Inhabits India, Burmese and Malay countries.

Gl. lactea, Temminck (*Pl. Col.* 399 ; Griffiths' *Trans. An. Kingd.*, VIII. 543, pl.—very bad).

SYN. Gl. orientalis apud Jerdon, Madr. Journ. XII. 215.

Utteran, Sindh. Inhabits India generally (very abundant).

Fam. CHARADRIADÆ.

Subfam. CURSORIINÆ.

Genus CURSORIUS, Latham.

C. coromandelicus.

SYN. Charadrius coromandelicus, Gmelin.
Cursorius asiaticus, Latham.
C. frenatus, Illiger.
Tachydromus orientalis, Swainson.

Nukri, H. Inhabits India generally (nec Lower Bengal.)

Genus MACROTARSIUS, Blyth.

M. bitorquatus, Jerdon, Blyth, J. A. S. XVII. 254. Inhabits E. Ghâts of peninsular India.

Subfam. ESACINÆ.

Genus ESACUS, Lesson.

E. recurvirostris.

SYN. Œdicnemus recurvirostris, Cuvier.
Carvanica] grisea, Hodgson, J. A. S. V. 796.

Kawanak, H. ; *Tuloor*, Sindh. *Bastard Floriken* of sportsmen. Inhabits India generally ; Ceylon ; Sindh ; Arracan.

Genus ŒDICNEMUS, Cuvier.

Œd. crepitans (*Pl. Enl.* 919).

SYN. Charadrius œdicnemus, L.

Bursiri, or *Lámbi*, H. ; *Khurma*, Beng. ; *Gadang Kapala*, Sum. (Raffles). *Bastard Floriken* of some. Inhabits Europe, Asia, Africa. Very common in parts of India.

Subfam. VANELLINÆ.

Titi, Beng.

Genus HOPLOPTERUS, Bonaparte.

H. ventralis (Hardw. *Ill. Ind. Zool.*)

SYN. Charadrius ventralis, Wagler.
Ch. Duvaucelei, Lesson.

Nghet Taloing, Arracan. Inhabits India generally (on sand-flats). Common in Arracan.

Genus SARCIOPHORUS, Strickland.

S. bilobus (*Pl. Enl.* 880).

SYN. Charadrius bilobus, Gmelin.

Zirdi, H. Inhabits India generally on arable land.

Genus LOBIVANELLUS, Strickland.

L. göensis (Gould's *Century*, pl. 78).

SYN. Parra göensis, Gmelin.
Charadrius atrogularis, Wagler.

Tititui (expressive of cry), H. ; *Titori*, Sindh. *Kibullo*, Cingh. ; *Teeteedoo*, Arracan. Inhabits India generally and Malay countries (very abundant).

L. cinereus.

SYN. Pluvianus cinereus, Blyth, J. A. S. XI. 587.

Inhabits Bengal not uncommon in cold season.

L. leucurus (Denon's Egypt, *Zool.*, pl. 6, f. 2).

SYN. Charadrius leucurus, Lichtenstein.

Chizi, Kabul. Inhabits Middle Asia ; N. Africa. Very rare in India.

Genus VANELLUS, L.

V. cristatus, Meyer (*Pl. Enl.* 242).

SYN. Tringa vanelus, L.
V. gavia, Leach.

Alatye, or *Mekhdao*, Kabul. Inhabits Europe and Asia ; N. Africa (in winter) : Upper India ; never in S. India, or L. Bengal.

Subfam. CHARADRINÆ.

Genus SQUATAROLA, Cuvier.

Sq. helvetica, (*Pl. Enl.* 854, 858).

SYN. Tringa helvetica, Gmelin.
Tr. squatarola, L.
Charadrius hypomelas, Pallas.
Vanellus griseus, Brisson.
V. melanogaster, Bechstein.

Bara Batan, B. ; *Chibugan*, Java. This is of nearly general distribution. Europe, Asia, Africa, Australia, N. America. Not rare in L. Bengal.

Genus CHARADRIUS, L.

Ch. pluvialis, L. (*Pl. Enl.* 904). Inhabits Europe ; W. Asia ; N. Africa.

Ch. virginicus, Bechstein (Wilson's *Am. Orn.* pl. 59, f. 5).

SYN. Ch. pluvialis apud Wilson, also Horsfield and Jerdon, Catal.
Ch. pluvialis var., Raffles.
Ch. marmoratus, Temminck.
Ch. pectoralis, Vieillot.
Ch. xanthocheilus (?), Wagler (Gould's B. A. Vol. VI. pl. 13).

Chota Batan, B. ; *Berkay*, Malay ; *Cheruling*, Sum. ; *Trull*, Jav. Inhabits S. E. Asia and its islands ; Australia ? ; N. and S. America. Very common in India.

Sub-genus EUDROMIAS, Boie.

Eu. morinellus (*Pl. Enl.* 832).

SYN. Charadrius morinellus, L.

Inhabits Europe ; W. Asia.

Sub-genus HIATICULA, G. R. Gray.

H. Geoffroyi, vide J. A. S. XII. 180.

SYN. Charadrius Geoffroyi, Wagler.
H. rufinus, Blyth, Ann. Mag. N. H. 1843.

Inhabits India generally ; not common ; Java.

H. Leschenaultii (?), vide, J. A. S. XII. 181.

SYN. Charadrius Leschenaultii (?), Lesson.
Ch. cirripedesmos, Wagler, apud Sundevall.
Ch. rufinellus, Blyth, Ann. Mag. N. H. 1833.

Inhabits India generally ; extremely common in L. Bengal.

H. cantiana.

SYN. Charadrius cantianus, Latham.
Ch. Alexandrinus, Hasselquist.
Ch. littoralis, Bechstein.
Ch. albifrons, Meyer.

Inhabits Europe ; Asia ; N. Africa.

H. philippina (Sonnerat, *Voy. aux Indes*, pl. 46.)

SYN. Charadrius philippinus Scopoli.
Ch. dubius, Gmelin.
Ch. curonicus, Beseke.
Ch. minor Meyer.
Ch. fluviatilis, Bechst.
Ch. intermedius, Menetrics.
Ch. hiaticuloides, Franklin.
Ch. zonatus, Swainson.
Ch. hiaticula apud Pallas.
Ch. hiaticula, var. (?), Raffles.

Zirria, H. ; *Tilla Chusmuk*, Kabul ; *Bui*, Sum. Inhabits Asia ; Africa ; rare in N. W. Europe. Extremely common in India.

H. pusilla.

SYN. Charadrius pusillus, Horsfield.
Ch. minor ? Wagler apud Jerdon, Catal.

Inhabits India and Malay countries. Rare in India.

H. nigrifrons (Gould's *B. A.* Vol. VI. pl. 20).

SYN. Charadrius nigrifrons, Cuvier.
Ch. melanops, Vieillot.
Ch. russatus, Jerdon. Catal.

Inhabits Australia (between 28° and 37°, S. lat). Extremely rare in India.

Fam. CHIONIDÆ.

Genus HÆMATOPUS, L.

H. ostralegus, L. (*Pl. Enl.* 939). *Duriya Guzpoun* (i. e. 'Sea Longshanks' or *Himantopus)* ; H. ; *Tetawuk*, Kabul. Inhabits Europe ; Asia ; N. Africa. Adult, in summer dress (bill 4 in. long). From Arracan.

Fam. RECURVIROSTRIDÆ.

Genus HIMANTOPUS, Brisson. *Lal Theng* ('Red-shank'), Beng. ; *Guz-poun*, ('Yard-leg'), H. ; *Chaha Bara*, Muttra ; *Gusling*, Sindh : *Gagang-bayem*, Jav.

H. candidus, Bonnaterre (*Pl. Enl.* 878).

SYN. Charadrius himantopus, L.
Ch. autumnalis, Hasselquist.
H. vulgaris et H. rufipes, Bechstein.
H. albicollis, Vieillot.
H. atropterus, Meyer.
H. melanopterus, Temminck.
H. asiaticus Lesson.

Inhabits Europe, Asia Africa. Very common in India.

H. intermedius, Blyth, J. A. S. XVIII. p. . Inhabits India where much less common than H. candidus, and Malay countries.

Genus RECURVIROSTRA, L.

R. avocetta, L. (*Pl. Enl.* 353). Inhabits Europe, Asia, Africa. Not rare in Lower Bengal.

Fam. SCOLOPACIDÆ.

Kada-khoncha ('Clay-pecker'), B. ; *Kutra*, H. ; *Yeng-yan*, Arracan ; *Trinil*, Jav. ; *Chanchali*, Kabul.

Genus IBIDORHYNCHUS, Vigors.

I. Struthersii, Vigors (Gould's *Century*, pl. 79).

SYN. Erolia (red-billed) Hodgson. J. A. S. IV. 459.

Inhabits Himalaya.

Genus TOTANUS, Ray, Bechstein.

T. glottis (Gould's *Century*, pl. 75 ; *B. A.* Vol. VI. pl. 36 ;—winter plumage).

SYN. Scolopax glottis, L.
Sc. canescens, Gmelin.
Totanus chloropus, Meyer.
T. fistulans, Bechstein.
T. glottoides, Vigors.
Limosa grisea, Brisson.
L. totanus et L. glottis, Pallas.
Glottis natans, Koch.
Gl. Vigorsii, G. R. Gray.

Timtimma, H. ; *Benonchung*, Jav. Inhabits Old World generally ; Australia. Very common in India.

T. stagnatilis, Bechstein (Gould's *B. E.* pl. 314 ; *B. A.* Vol. VI. pl. 37 ; *Century*, pl. 76 ; —winter plumage).

SYN. Scolopax totanus, L.
T. Horsfieldi, Sykes.
T. Lathami, Gray (Hardw. Ill. Ind. Zool).
T. tenuirostris, Horsfield.

Chota Timtimma, H. ; *Kiyo*, Java ; *Kurrukh-i-abi*, Kabul. Inhabits Old World generally ; Australia. Very common in India.

T. fuscus (*Pl. Enl.* 875).

SYN. Scolopax fusca, L.
Sc. nigra et Tringa atra, Gmelin.
Sc. curonica, Beseke.
Limosa fusca, Brisson.
T. natans et T. maculatus, Bechstein.

Butan, H. Inhabits Europe and Asia. Common in India.

T. calidris (*Pl. Enl.* 845).

SYN. Scolopax calidris, L.
Tringa gambetta, Gmelin.
Tot. variegatus, Brunnich.
T. striatus et T. nævius, Brisson.

Chota Butan, H. Inhabits Europe and Asia. Very common in India.

Genus ACTITIS, Illiger.

Act. glareola.

SYN. Tringa glareola, Gmelin.
Totanus affinis, Horsfield.

Ola-Watua, Cingh. ; *Kodidi*, Malay. Inhabits Europe and Asia. Extremely common in India.

Act. ochropus (*Pl. Enl.* 843).

SYN. Tringa ochropus. L.
Tonatus leucurus, Gray (Hardw. Ill. Ind. Zool.)

Tita. Sindh. Inhabits Europe and Asia. Rare in N. Africa. Common in India.

Act. hipoleucos (*Pl. Enl.* 850).

SYN. Tringa hipoleuca, L.

Tiha, and *Musda*, Sindh.; *Trinil batu*, Java. Inhabits Europe and Asia. Extremely common in L. Bengal.

Genus TEREKIA, Bonaparte.

T. cinerea (Gould's B. E. pl. 807 ; B. A. Vol. VI. pl. 34).

SYN. Scolopax cinerea, Gmelin.
Sc. terek, Latham.
Sc. sumatrana, Raffles.
Limosa recurvirostra, Pallas.
Fedoa terekensis, Stephens.
Tonatus javanicus, Horsfield.
Xenus cinereus, Kaup.

Kuning kaki, Sum. ; *Bedaran*, or *Choweyau*, Jav. Inhabits Asia and its archipelago ; rare in Europe and in Australia. Common in India.

Genus LIMOSA, Brisson.

L. lapponica (*Pl. Enl.* 900).

SYN. Scolopax lapponica, L.
Sc. leucophæa, Latham.
L. rufa, Brisson.
L. ferruginea, Pallas.
Totanus gregarius, Bechstein.

Inhabits Europe ; Africa ; never (?) India.

L. ægocephala (Gould's B. A. Vol. VI. pl. 28).

SYN. Scolopax ægocephala et Sc. limosa, L.
Sc. belgica, Gmelin.
Sc. melanura, Leisler.
L. leucophæa, Jerdon.
L. melanuroides, Gould.

Chaha, and *Jangral*, H. ; *Susling*, Sindh; *Biru Lahut*, Jav. Inhabits Europe, Asia and its islands, and N. Australia. Very common in India.

N. B.—Individuals of the same flock of this species vary excessively in size, and are frequently small as the pair represented by Mr. Gould. The bill varies in length from 2¾ to 4¼ in.; and the closed wing from 7 to 8½ in.

Genus NUMENIUS, L.

N. arquata, L. (*Pl. Enl.* 818). *Sáda Kastuchura* ('*White* Curve-bill,' as opposed to Ps. crepitans, Beng. ; *Goar*, or *Goungh*, H. ; *Terok*, Sum. Inhabits Europe, Asia, Africa. Common in India.

N. phæopus L. (*Pl. Enl.* 842).

SYN. Phæopus vulgaris, Flemming.

Chota Goungh, H. ; *Gajahan*, Java. Inhabits Europe, Asia, Africa. Common on the sea-coasts of India, rare inland.

Genus TRINGA, L.

Tr. canutus, L. (*Pl. Enl.* 365, 366 ; Gould's B. E. pl. 324).

SYN. Tr. cinerea, Brunnich.
Tr. islandica, nævia, grisea, et australis, Gmelin.
Tr. glareola, Pallas.
Tr. ferruginea, Meyer.
Tr. rufa, Wilson (Am. Orn. pl. 57, f. 2,5.)

Inhabits Europe, Africa, N. Asia. Very rare in India.

Tr. subarquata, Gmelin (*Pl. Enl.* 851 ; Gould, *B. E.* pl. 328 ; *B. A.*, Vol. VI. pl. 32).

SYN. Tringa ferruginea, Brunnich.
Tr. islandica, Retzius.
Tr. falcinella, Pallas.
Tr. chinensis, Gray.
Scolopax africana et pygmæa, Gmelin.
Sc. caffra, Forster.
Numenius pymæus, Latham.
Erolia varia, Vieillot.
Falcinellus Cuvieri, Bonap.

Mayatan. Jav. Inhabits Europe, Asia, Africa, Australia. N. America. Very common in India.

Tr. cinclus, L. (*Pl. Enl.* 852 ; Gould, *B. E.* pl. 329).

SYN. Tringa alpina, L.
Tr. ruficollis et Scolopax pusilla, Gmelin.
Sc. salina, Pallas.
Numenius variabilis, Bechstein.

Inhabits northern hemisphere. Not common in L. Bengal, nor in S. India.

Tr. platyrhyncha (Gould's *B. E.* pl. 331).

SYN. Tr. eloroides, Vieillot.
Limicola pygmæa, Kaup.

Inhabits Asia ; rare in Europe : tolerably common in India.

Tr. minuta, Leisler (Gould, *B. E.* pl. 332).

SYN. Tr. pusilla, Meyer and Wolff.
Tr. cinclus Pallas, apud G. R. Gray.
Tr. damacensis, Horsfield.
Tr. pusilla ? apud Jerdon, Catal.

Chota Pun-loha, H. (Jerdon). Inhabits Europe and Asia. Very common in India.

Tr. Temminckii, Leisler (Gould. *B. E.* pl. 333).

SYN. Tr. pusilla, Bechstein.

Inhabits Europe and Asia. Common in India.

Genus EURINORHYNCHUS, Nilsson.

Eu. pygmœus (G. R. Gray, *Ill. Gen. Birds*, pl. 152, f. 1).

SYN. Platalea pygmæa, L.
Eu. griseus, Nilsson.
Eu. orientalis, Blyth, Ann. Mag. N. H. 1843.

Inhabits Europe and Asia. Extremely rare. Most numerous on the eastern coast of the Bay of Bengal, a few mingled in flocks of No. 1911—16).

Genus CALIDRIS, Illiger.

C. arenaria (Gould, *B. E.* pl. 335).

SYN. Charadrius calidris, L.
Ch. rubidus, Gmelin.
Arenaria grisea, Bechstein.
A. vulgaris, Leisler.
Tringa tridactyla, Pallas.
C. tringoides, Vieillot.

Inhabits Sea-coasts of Northern hemisphere. Very rare (?) in India.

Genus PHILOMACHUS, Mœrrhing.

Ph. pugnax (*Pl. Enl.* 300, 305, 306, 844; Gould *B. E.* pl. 328).

Syn. Tringa pugnax, L.
Tr. variegata, Brunnich.
Tr. equestris et grenovicensis, Latham.
Tr. rufescens, Bechstein.
Tr. littorea, Gmelin.
Limosa Hardwickii,—male } Hardw. Ill.
Totanus indicus,—female } Ind. Zool.

Gehwala, H.; *Chouchili*, Sindh. Inhabits Europe and Asia. Common in India in winter dress; constantly leaving L. Bengal before the ruff of the male is put forth; though specimens with growing ruffs have been obtained at Rajmahl.

Genus STREPSILAS, Illiger.

Str. interpres (*Pl. Enl.* 856; Gould's *B. A.* Vol. VI. pl. 39).

Syn. Tringa interpres, L.
Str. collaris, Temminck.

This is if universal distribution, on all sea-coasts; rare inland.

Genus PHALAROPUS, Brisson.

Ph. fulicarius (Edwards pl. 142).

Syn. Tringa fulicaria, L.
Ph. platyrhynchus, Temminck.
Ph. rufus, Bechstein.

Inhabits northern regions. Exceedingly rare in India.

Genus MACRORHAMPHUS, Leach.

M. semipalmatus, Jerdon, Blyth, J. A. S. XVII. 252. Inhabits India, rare (?), or more probably confined to sea-coasts.

Genus SCOLOPAX, L.

Sc. rusticola, L. (*Pl. Enl.* 885).

Syn. Sc. indicus, Hodgson, J. A. S. VI. 490.

Inhabits Europe and Asia. Common in the Himalaya, and Nilgiris during the cold season. Very rare in L. Bengal, and in Ceylon.

Genus GALLINAGO, Ray, Stephens.

G. nemoricola, Hodgson (Jerdon's *Ill. Ind. Orn.* pl. 9), J. A. S. VI. 490. *Wood-Snipe*, Himalaya: *Solitary Snipe*, Nilgiris. Inhabits Himalaya; C. India; Nilgiris.

G. solitaria, Hodgson, J. A. S. VI. 491.

Syn. Sc. nemoricola, var. ?

Inhabits Himalaya.

G. stenura.

Syn. Scolopax stenura, Temminck.
Sc. gallinago apud Raffles and Horsfield.
Sc. heterura et biclavus, Hodgson.

Kas Watua, Cingh.; *Boorkat Gadung*, Malay; *Sekadidi*, Sum.; *Burchet*, Jav. Inhabits India and Malay countries. Common in India.

G. scolopacinus, Bonaparte (*Pl. Enl.* 883).

Syn. Scolopax gallinago, L.
G. uniclavus, Hodgson, J. A. S. VI. 492.

Bharka, or *Bhuruk*, H. Inhabits Old World generally (nec Malay countries ?)

G. gallinula (*Pl. Enl.* 884).

Syn. Scolopax gallinula, L.
Sc. minima, Ray.

Inhabits Old World generally (nec Malay countries (?). Common in India.

Genus RHYNCHEA, Cuvier.

Rh. bengalensis (Hardw. *Ill. Ind. Zool.*)

Syn. Scolopax benghalensis L.
Sc. capensis, Gmelin, apud Raffles.
Rh. orientalis, Horsfield.
Rh. varia, Temminck.
Rh. capensis, apud Gray.

Raja Kas Watua, Cingh.; *Pengung*, Jav. Inhabits India and Malay countries. Common in India.

Fam. PALAMEDEIDÆ.

Subfam. PARRINÆ.

Piho, H.

Genus METOPIDIUS, Wagler.

M. indicus (*Vieillot, Gal. des. Ois.* pl. 264; Hardw. *Ill. Ind. Zool.*)

Syn. Parra indica, Latham.
P. cuprea, Vahl.
P. melanochloris, Vieillot.
P. ænea, Cuvier.
P. superciliosa, Horsfield.
P. atrata, Tickell, J. A. S. II. 582. } Young.
Gallinula viridis, Gmelin. }

Dal-pipi, Beng.; *Pichisan*, Java. Inhabits S. E. Asia and its Islands. Very common in India.

Genus HYDROPHASIANUS, Wagler.

H. chirurgus (Gould's *Century*, pl. 77, Hardw. *Ill. Ind. Zool.*)

Syn. Tringa chirurgus, Scopoli (Sonn. Voy. aux. Indes, pl. 45,—non-breeding plumage.
Parra sinensis et luzoniensis, Gmelin.

Dal-kukra, H.; *Bhepi*, or *Bhenpi*, Beng. Inhabits India; China; Philippines. Common.

Fam. GRUIDÆ.

Genus GRUS, Mœrrhing.

Gr. antigone (Edwards, pl. 45; *Pl. Enl.* 865).

Syn. Ardea antigone, L.
Grus torquatus, Vieillot.
Gr. orientalis (?), Pallas.

Saras, or *Surhuns*, H.; *Gyo-gya*, Arracan. Inhabits India generally, rare to the southward.

Gr. cinerea, Bechstein (*Pl. Enl.* 769; Gould's *B. E.* pl. 270).

SYN. Ardea grus, L.
Grus vulgaris, Pallas.

Kulung, H.; *Kunj*. Persian. Inhabits Europe; Asia; N. Africa. Common in India.

Sub-genus ANTHROPOIDES, Vigors.

Anthr. virgo (*Pl. Enl.* 241; Edwards, pl. 134.)

SYN. Ardea virgo, L.
Grus numidica, Brisson.

Karkarra, H.; also *Kurrounch* (Jerdon); *Kurkoncha*, Can.; *Shukdurruk*, Kabul. (All imitative of cry.) Inhabits Asia and Africa. Rare in S. Europe. Common in S. India.

Tribe CULTRIROSTRES.

Fam. ARDEADÆ.

Subfam. TANTADINÆ.

Genus FALCINELLUS. Ray, Bechstein.

F. igneus (Gould's *B. A.* Vol. VI. pl. 47).

SYN. Tantalus falcinellus, L.
T. igneus et viridis, Gmelin.
Ibis sacra, Temminck.

Kowari, H.; *Kala Kustechora*, B.; *Buzak*, Kabul. *Black Curlew* of sportsmen. Inhabits Old World generally; Australia. Common in India.

Genus GERONTICUS, Wagler.

G. papillosus (*Pl. Col.* 340).

SYN. Ibis papillosa, Temminck.

Buza or *Kala Buza*, H.; *Karunkul*, C. India *King Curlew* of sportsmen. Inhabits India generally (nec L. Bengal).

Genus THRESKIORNIS, G. R. Gray.

Thr. melanocephalus, (Jardine and Selby; *Orn. Ill.*, pl. 120).

SYN. Tantalus melanocephalus, L.,—the young.
Ibis Macei et I. leucon (apud G. R. Gray) Temminck.
I. bengala, Cuvier.
I. religiosa apud Sykes.

Munda, H.; *Safed Buza* of some: *Sada Kasechora* (*i. e.* 'White Curlew') of some, B.; *Kula-gouk*, Arracan. *White Curlew* of sportsmen. Inhabits India generally; scarce in Arracan.

Genus TANTALUS, L.

T. leucocephalus, Gmelin (Pennant's *Ind. Zool.* pl. 11).

SYN. T. gangeticus, Shaw.
T. indicus, Cuvier,

Dokh, H.; *Jaunghal*, in Hindustan (Jerdon), *Kat Sarunga*, H., B.; *Lamjang* and *Lumduk*, Sindh. Inhabits India generally; Ceylon; Assam; Arracan.

T. lacteus, Temminck (*Pl. Col.* 352).

SYN. T. ibis, var., and the young—
T. cinereus, Raffles, Lin. Tr. XIII. 327.

Inhabits Malay countries.

Genus PLATALEA, L.

Pl. leucorodia, L. (*Pl. Enl.* 405).

Chammach Buza (*i. e*, 'Spoon Ibis'), H. *Chimta*, B. Inhabits Europe and Asia. Common in India.

Genus ANASTOMUS, Bonnaterre.

A. oscitans, (*Pl. Enl.* 932; Sonnerat, *Voyaux Indes*, pl. 122).

SYN. Ardea oscitans, Boddaert.
A. ponticeriana et coromandelica, Gmelin.
An. typus, Temminck.
A. albus et cinereus, Vieillot.
Mycteria asiatica (?), Latham.

Gungla or *Gunglu*, H. (Jerdon); also *Ghongal*, H.; *Samuk-khol*, B.; *Tont'h Bhunga* (Tickell); *Kha-yoo-tsoot*, Arracan. Inhabits India generally. Common.

INCERTÆ SEDIS.

Genus DROMAS, Payk.

D. ardeola, Payk. (*Pl. Col.* 362; Salt, 'Travels in Abyssinia,' pl. 31).

SYN. Erodia amphilensis, Stanley.
Ammoptila charadroides? apud Jerdon, Catal.

Inhabits Sea-coast of S. India and Ceylon; also of E. Africa.

Subfam. CICONINÆ.

Genus MYCTERIA, L.

M. australis, Shaw (Gold's *B. A.* Vol. VI. pl. 51).

SYN. Ardea oscitans, Latham.
Siconia leucoptera, Wagler.

Bunarus, and *Lohajung*, H.; *Ram Salik*, B. Inhabits India generally, Malay countries, and Australia.

Genus CICONIA, L.

C. alba, Belon (*Pl. Enl.* 866).

SYN. Ardea ciconia, L.

Lag-lag, or *Ujli*; also *Haji Lag-lag*, H. (Jerdon); *Dhek*, Muttra. Inhabits Europe; Asia; N. Africa; India generally; very common in parts of Bengal, during the cold season.

C. nigra, L. (*Pl. Enl.* 399).

SYN. Ardea nigra, L.
A. chrysopelargus, Lichtenstein.
A. fusca, Brisson,—the young.
White-bellied Jabiru, Latham.

Surmai, H. (Jerdon). Inhabits Europe; Asia; N. Africa; common in N. India; very rare in L. Bengal.

C. leucocephala (*Pl. Enl.* 906).

SYN. Ardea leucocephala, Gmelin.
C. umbellata, Wagler

Manikjor, H., B.; *Khyee-kheng-tswop*, Arracan: *Sandang-lawe*, Java. Inhabits India generally; Burmese and Malay countries. Common.

Genus LEPTOPTILOS, Lesson.

L. argala (*Pl. Enl.* 300).

SYN. Ardea argala, L.
A. dubia, Gmelin.
Ciconia mirabou, Temminck.
C. nudifrons, Jerdon, Catal.,—young.
Argala migratoria, Hodgson, Ind. Rev. 1838, p. 563.

Hargila B.; *Dusta*, H. (Jerdon); *Chaniari Dhauk*, H. (Hodgson); *Garar*, Muttra. 'Adjutant' of Europeans. Inhabits N. Asia? Visiting India during the rains, when common in L. Bengal.

L. javanica (*Pl. Col.* 312).

SYN. Ciconia javanica, Horsfield.
C. capillata, Temminck.
C. calva, Jerdon, Catal.
C. nudifrons, and the young—C. cristata, McClelland, Ind. Rev. 1838, pl. 512.
Argala immigratoria, Hodgson, ibid, p. 563.
Ardea dubia of Sumatra, apud Raffles.

Madanchur, B.; *Chinjara*, H (Jerdon); *Tontsap* and *Nghet-gyee*, Arracan; *Bangou Sula*, *Burong Kambing*, and *Burong Gaja* of Malays (Raffles); *Bangu*, Java. Inhabits India and Malay countries; never frequenting towns, like L. argala.

Subfam ARDEINÆ.

Genus ARDEA, L. *Bog*, or *Bogla*, H.; *Barado*, Sindh; *Nga-heet*, and *Nghet-nga-nwa*, Arracan.

A. goliath, Ruppell (Atlas pl. , the adult).

SYN. A. typhon (?), Temminck (Pl. Col. 475)?
A nobilis, Blyth, Ann. Mag. N. H. XIII. 175,—young bird.

Inhabits Bengal (in cold season); Nepal: also Africa. Several specimens of this immense heron have been procured in the vicinity of Calcutta, but all hitherto in the plumage of the first year.

A. sumatrana, **Raffles Gould's B. A. Vol. VI. pl. 54,—the second plumage.**

SYN. A. fusca, Blyth, Ann. Mag. N. H. XIII. 176.
A. rectirostris, Gould.

San Barado, **Sindh. Inhabits Sindh; Sikkim (tarai?); Assam; Arracan; Sumatra; Australia.**

A. cinerea (*Pl. Enl.* 775, 787).

SYN. A. major, L.
A. brub (?), Jacquemont, Atlas, pl.

Kabud, H. (Jerdon). *Sada Kánk* and *Anjun*, B.; *Saa*, Sindh; *Changa Awu* Jav. Inhabits Europe; Asia: Africa. Common in India.

A. purpurea, L. (*Pl. Enl.* 783).

SYN. A. caspica, purpurata, rubiginosa (?), et botaurus aut rufa, Gmelin.
A. variegata, Scopoli.
A. monticola, LaPcy.

Nari, H. (Jerdon), *Lál Kank*, B.; *Khyonbyoing*. Arracan; *Changa-ulu*, Java. Inhabits Europe, Asia, Africa.

Sub-genus HERODIAS, Boie.

Koka, Cingh.; *Kantal*, Jav.; *Ooker*, and *Kumole*, Kabul; *Byoing Phyoo*, Arracan.

H. alba (*Pl. Enl* 886; Gould's B. A. Vol. VI. pl. 56).

SYN. Ardea alba, L.
A. egretta, Temminck.
A. nivea, Lesson.
A. modesta, Gray.
A. flavirostris et melanorhynchos, Wagler.
A. torra, Buchanan Hamilton and Franklin.
A. syrmatophorus, Gould.

Mallang Bagla, *Turra Bagla*, and *Patoka Bagla*, H. (Jerdon); *Dhar Bagla*, B.; *Bacho Barado*, Sindh. Inhabits S. E. Europe; Africa; Asia and its islands; Australia. Common in India.

H. intermedia (Gould's B. A. Vol. VI. pl. 57).

SYN. Ardea intermedia, Wagler, Isis, 1829.
A. egrettoides, Temminck.
A. flavirostris, Bonnaterre, nec Wagler.
A putea, Buchanan Hamilton.
A. nigrirostris, Gray.
H. plumifera, Gould.

Inhabits as last. The most abundant species of Egret in the Malay countries. Common also in India.

H. garzetta (*Pl. Enl.* 901).

SYN. Ardea garzetta, L.
A. xanthodactyla et A. nivea, Gmelin.
A. orientalis, Gray.
A. melanopus, Wagler, } Variety.
A. nigripes, Temminck, }
H. immaculata (?), Gould.

Kirchia (or *Kilchia*) *Bagla*, H. (Jerdon). Inhabits as last. Very common in India. Australia?

H. bubulcus (*Pl. Enl.* 910: Denon's Egypt, (*Zool.* t. 1, pl. 8, f. 1).

SYN. Ardea bubulcus, Savigny.
A. lucida, Raffinesque.
A. æquinoctialis, Montagu.
A. coromandelensis, Stephens.
A. bicolor and A. ruficapilla, Vieillot.
A. russata, Temminck.
A. affinis, Horsfield.
A. coromandelica, Lichtenstein.
A. Veranii, Roux.
A. leucocephala, Cuvier.
A. caboga, Franklin.
A. ibis, Hasselquist.

Durrea and *Surkhia Bogla* H.; *Gai Bagla, B. Sudu Koka*, Cingh.! *Kantal Chilik*, Jav. Inhabits as last, associating much with cattle. Nec Australia?

H. asha.

SYN. Ardea asha, Sykes.
Herodias, pannosa (?), Gould. (B. A. Vol. VI. pl. 59).

Kala Bugla, H. (Jerdon). Inhabits Peninsula of India; Sindh. Nec(?) L. Bengal. Australia?

H. jugularis (Gould's B. A. Vol. VI. pl. 60).

SYN. Ardea jugularis, Forster.
A. cærulea, var, Latham.
A. matook, Vieillot.
Demigretta concolor, Blyth, J. A. S. XV. 372.
H. Greyi,—Gray (Gould's B. A. Vol. VI. pl 61),—permanent white variety.

Inhabits Arracan; Nicobar Islands; N. Zealand; Africa (Senegal)?

Sub-genus BUTORIDES, Blyth.

B. javanica.

SYN. Ardea javanica, Horsfield.

Kancha Bagla, H.; *Kuno Bag*, B.; *Puchong*, Malay; *Upi upian*, Jav. Inhabits India and Malay countries. Common.

Sub-genus ARDEOLA, Boie.

A. leucoptera (Hardw. *Ill. Ind. Zool*).

SYN. A. leucoptera, Boddaert.
A. Grayi, Sykes—breeding dress
A. malaccensis, Gmelin—non-breeding dress.

Undki Bogli. H. (Jerdon); *Kuro Bog*, B.; *Kana koka*, Cingh. Inhabits India generally; Burmese countries; Malayan peninsula. Exceedingly common.

Sub-genus NYCTICORAX, Brisson, Stephens.

N. griseus (*Pl. Enl.* 758).

SYN. Ardea nycticorax et grisea, L.
N. europæus, Stephens.

Wok (from voice), and *Batchka*, Beng., H.; *Gadri*, Sindh; *Leng-wet*, Arracan; *Guwo*, Jav. Inhabits Europe; Asia; Africa. Common in India.

Sub-genus TIGRISOMA, Swainson.

T. melanolopha.

SYN. Ardea melanolopha, Raffles, Lin. Tr. XIII. 316.

Inhabits Ceylon; Arracan; Malayan peninsula; Sumatra.

Sub-genus BOTAURUS, Brisson, Stephens.

B. stellaris (*Pl. Enl.* 789).

SYN. Ardea stellaris, L.

Nir goung, H. Inhabits Europe; Asia; Africa. Common in Bengal.

Sub-genus ARDETTA, G. R. Gray.

A. flavicollis (Jerdon's *Ill. Ind. Orn.* pl. 16; Gould's *B. A.* Vol. VI. pl. 65,—not good, if the Australian be truly identical with the Indian species.

SYN. Ardea flavicollis, Latham.
A. nigra, Vieillot.
A. [illegible]ta, Raffles,—the young figured in Hardwicke's Ill. Ind. Zool.

Kata and *Nal Bogla*, B.; *Tototan* or *Tomtomman*, Jav. Inhabits India generally: not common, nor rare in L. Bengal; Ceylon; Tippera; Arracan; Tenasserim; Malayan peninsula; Sumatra; China; Australia.

A. cinnamomea, Hardw. *Ill. Ind. Zool*).

SYN. Ardea cinnamomea, Gmelin.

Lal Bogla, H.; *[illegible]ati, korawaku*, Cingh.; *Ayam-Ayaman*, Jav. Inhabits India and Malay countries. Common.

A. sinensis (young figured as No. 1651, Hardw. *Ill. Ind. Zool.*,—not good).

SYN. Ardea sinensis, Gmelin.
A. lepida et A. nebulosa, Horsfield.

Bambangan, Jav. Inhabits India generally; Ceylon; Arracan; Jav.; China. Generally observed on high reeds.

A. minuta *Pl. Enl.* 323).

SYN. Ardea minuta, L.
A. danubialis et soloniensis, Gmelin.

Inhabits Europe, Africa, C. Asia; Nepal.

Tribe MACRODACTYLI.

Fam. RALLIDÆ.

Genus PORPHYRIO, Brisson.

P. poliocephalus, Latham. *Kaim*, or *Kayem*, Beng.: *Keima*, H.; *Kogh*, Sindh. Inhabits India generally; Arracan; Tenasserim. Replaced in the Malayan peninsula and archipelago by P. *smaragdinus*, Temminck, v. *indicus*, Horsfield; *Tedone* of the Malays; *Pelung*, Jav.

Genus GALLICREX, Blyth.

G. cristatus.

SYN. Gallinula cristata, Latham.
G. plumbea, Vieillot.
G. lugubris (male), and G. gularis (female), Horsfield.
Rallus rufescens apud Jerdon, Madr. Journ. XII. 205 (female).
Fulica cinerea, Gmelin.

Kora, or *Kongra*, Beng.; *Bontod*, and *Bureng*, Jav. Inhabits India generally, and Malay countries. Common in Bengal.

Genus PORZANA, Vieillot.

P. phœnicura (*Pl. Enl.* 896; Horsfield, *Zool. Res. in Java*, pl.).

SYN. Rallus phœnicurus, Pennant.
Gallinula javanica, Horsfield.
G. erythrina, Bechstein.
Fulica chinensis, Boddaert.

Daouk, or *Dehuk*, Beng.; *Dawuk*, H. (Jerdon); *Korawaka*, Cingh.; *Burai*, Sindh; *Kaloo-gwet*, Arracan; *Roa-Roa*, Malay; *Sribomba*, Jav. Inhabits S. E. Asia and its archipelago. Extremely common.

P. akool.

SYN. Gallinula akool, Sykes (nec Jerdon).
G. modesta, Swainson 2¼ Cent., p. 348.

Inhabits India generally. Rare in L. Bengal.

P. maruetta (*Pl. Enl.* 751).

SYN. Rallus porzana, L.
R. maruetta, Brisson.

Khairi, Beng. (generic); *Teerteeruk*, Kabul. Inhabits Europe, Asia, and Africa. Common in India.

P. pygmæa (J. and S., *Ill. Orn.* pl. 15).

SYN. Crex pygmæa, Naumann.
Gallinula Baillonii, Vieillot.

Inhabits Europe, Asia, and N. Africa. Very common in India.

P. quadristrigata.

SYN. Rallus quadristrigatus, Horsfield.
Gallinula superciliosa, Temminck.
G. leucosoma, Swainson, 2¼ Cent., p. 348.

Inhabits Malay countries.

P. fusca (*Pl. Enl.* 773; *Pl. Col.* 387).

SYN. Rallus fuscus, L.
Gallinula rubiginosa, Tem.

Inhabits S. E. Asia and its islands. Common in India.

P. fasciata (*Pl. Col.* 417), J. A. S. XI. 797).

SYN. Rallus fasciatus, Raffles.
Gallinula euryzona, Tem.
Rallus ruficeps, Cuv.

Sintar, Malay (generic). Inhabits Malayan Peninsula and archipelago.

P. ceylonica (Brown's *Ill.*, pl. 37).

SYN. Rallus ceylonicus, Gmelin.

Inhabits peninsular India; Ceylon.

Genus ORTYGOMETRA, Ray.

O. crex (*Pl. Enl.* 750).

SYN. Gallinula crex, L.
Crex pratensis, Bechstein.

Inhabits Europe and W. Asia: common in Aghanistan.

R. striatus, L.

SYN. R. gularis, Horsfield.

Ayam-ayam, Sum.; *Tikussan*, Jav. Inhabits S. E. Asia and its islands. Common in India.

R. indicus, Blyth, J. A. S. XVII. p.

SYN. R. Aquaticus of India, auctorum.

Inhabits India generally. Common.

Genus GALLINULA, Brisson.

G. chloropus (*Pl. Enl.* 877).

SYN. Fulica chloropus et F. fusca, L.
G. parvifrons, Blyth.
G. akool apud Jerdon, Catal.

Pan Paira, *Dahuk Paira*, B.; *Kushkul* Cabul. Inhabits Europe, Asia, and N. Africa. Common in India.

Genus FULICA, L.

F. atra, L. (*Pl. Enl.* 197).

SYN. F. aterrima, L.
F. æthiops et F. leucoryx, Sparrman.
F. pullata et atrata, Pallas.

Dasri, or *Dasarni*, H.; *Kushkul*, Cabul; *Ari*, Sindh. Inhabits Europe, Asia, and N. Africa. Common in India.

Order VIII. NATATORES.

Tribe LONGIPENNES.

Fam. LARIDÆ.

Subfam. LARINÆ.

enus CATARRACTA, Brunnich.

C. cephus, Brunnich (Gould's *B. E.* pl. 442).

SYN. Lestris parasiticus, Swainson.
L. crepidetus, Temminck.
L. Buffonii, Boie.

Inhabits Northern seas.

Genus LARUS, L. *Gang Chil* (*i. e.* 'Ganges Kite,' B.); *Badkhor*, Cabul.

L. fuscus, L. (Gould, *B. E.*, pl. 431).

SYN. L. flavipes, Meyer.
L. argentatus apud Montagu.

Inhabits Atlantic; Mediterranean; Red Sea; Indian Ocean; C. G. Hope; N. Zealand. Cabul (Burnes).

L. icthyaetus, Pallas (Ruppell, *Atlas* pl. 17).

SYN. L. kroikocephalus, Jameson, J. A. S. VIII. 242.
Icthyaetus Pallasi, Kaup.

Inhabits Asia; Indian Ocean; common in Bay of Bengal.

L. ridibundus, L. (*Pl. Enl.* 960, 970; Gould, B. E. pl. 425).

SYN. L. cinerarius et L. erythropus, Gmelin.
L. atricilla et L. nævia, Pallas.
L. canescens, Bechstein.
L. capistratus, Temminck.
Sterna obscura, Latham.

Inhabits Europe; Asia; N. Africa: much less common in L. Bengal than L. fuscus.

L. brunnicephalus, Jerdon, *Madr. Journ.* XIII. 225.

SYN. L. ridibundus. var., Sundevall.

Inhabits India generally. Common.

Subfamily. STERNINÆ.

Gáng Chil, B.; *Tihári*, H.

Div. 1. Skimmers.

Genus RHYNCHOPS, L.

Rh. albicollis, Swainson (Gray's *Ill. Gen. Birds*, pl. 180). Inhabits India generally.

Div. 2. Marsh Terns.

Genus SYLOCHELIDON, Brehm.

S. caspius (Savigny, *Ois. d' Ægypt*, pl. 9, f. 1 ; Gould's B. A. Vol. VII. pl. 22).

SYN. Sterna caspia, Latham.
S. strenuus, Gould.
'Thalassites, Jerdon, Catal. No. 405.

Inhabits India generally (nec L. Bengal), and the warmer regions of the Old World ; Australia ; rare in N. W. Europe.

Genus GELOCHELIDON. Brehm.

G. anglicus (Wilson's *Am. Orn.* pl. 72, f. 6).

SYN. Sterna anglica, Montagu.
St. aranea, Wilson (apud Audubon, Selby, and de Kay).
St. resoria et St. meridionalis, Brehm.
St. nilotica, Gmelin.
St. affinis, Horsfield (nec Ruppell).

Inhabits warmer regions of the Old World, extending also to America. Common in India.

Genus HYDROCHELIDON, Boie.

H. indica.

SYN. Viralva indica, Stephens.
Sterna hybrida, Pallas.
St. leucopareia, Natterer.
St. grisea, Horsfield.
St. cantiaca (?) apud Raffles.
St. similis, Gray (Hardw. Ill. Ind. Zool.)

Samar Saut?, Sum. ; *Puter-lahut*, Jav. Inhabits Europe ; Asia ; Africa ; Malay countries : rare in N. W. Europe : very common in India. *N. B. H. fluviatilis*, (Gould's B. A. Vol. VII. pl. 31,) of Australia, would seem to differ only in having the entire throat white when in summer dress.

H. nigra Pl. Enl. 333).

SYN. Sterna nigra, nævia, et L. lariformis (?), L.
St. fissipes, Pallas.
St. leucoptera, Temminck.
} apud G. R. Gray.

Inhabits S. Europe ; Africa ; W. Asia. Rare in N. and C. Europe.

Genus THALASSEUS, Boie.

Th. bengalensis (Gould's B. A. Vol. VII. pl. 25).

SYN. Sterna bengalensis, Lesson.
St. media (?), Horsfield.
Th. Torressi, Gould.
Sterna, Jerdon's Catal., No. 402.

Toyang kacher (?), Java. Inhabits Indian and Malayan seas ; N. Australia.

Genus STERNA, L.

Subgenus SEENA, Blyth.

Seena aurantia (Hardw. *Ill. Ind. Zool.*

SYN. Sterna seena, Sykes.
St. aurantia, et St. brevirostris, Gray.

Inhabits India generally. Common along the rivers.

Subgenus STERNA.

St. paradisea, Brunnich (Vieillot, *Gal des Ois.*, pl. 290).

SYN. St. Dougalli, Montagu.

Inhabits Europe ; Asia ; Africa ; America : coasts of India.

St. hirundo, L (*Pl. Enl.* 987).

SYN. St. fluviatilis, Naumann.

Inhabits Europe ; Asia ; Africa ; Nilgiris ; Ceylon.

St. javanica, Horsfield (Hardw. *Ill. Ind. Zool*).

SYN. St. melanogaster, Temminck.
St. acuticauda, Gray.

Inhabits India and Malay countries. Common along the rivers.

Subgenus STERNULA, Boie.

St. minuta (*Pl. Enl.* 996 ; Wilson's *Am. Orn.* pl. 60, f. 2).

SYN. Sterna minuta, L.
St. sumatrana (?), Raffles.
St. sinensis (?), Gmelin,—young.

Toyang, Jav. Inhabits Northern hemisphere : represented in S. America and in Australia by closely allied species. Common on W. coast of India.

Div. 4. Oceanic Terns.

Genus ONYCHOPRION, Wagler.

On. melanauchen (Gould's B. A. Vol. VII. pl 28).

SYN. Sterna melanauchen, Temminck.
St. minuta, Horsfield (apud G. R. Gray).

Inhabits Indian Ocean ; Malayan seas : N. Australia. Breeds numerously on Nicobar Islands.

On. anasthætus (Sonnerat, *Voy. a la Nouv. Guinee*, pl, 84).

SYN. Sterna anasthætus, Scopoli.
St. panayana, Latham (nec apud Gould ? B. A. Vol. VII. pl. 33).
St. infuscata, Lichtenstein (from E. Indies).
St. antarctica, Mus de Paris, Lesson (Calcutta).

Inhabits Indian Ocean ; Bay of Bengal ; Malayan Seas.

Genus ANOUS, Leach.

A. stolidus (Gould's B. A. Vol. VII. pl. 34).

SYN. Sterna stolida, L.
A. niger, Stephens.
Gaira fusca, Brisson.
St. philippina (?), Latham.

Chamar, Malay (generic).
general distribution, over t
warmer parts of the ocear is of very
Indian seas. emperate and

A. tenuirostris (Gc Common in the
36).

SYN. Sterna tenuirostris, Vol. VII. pl.
A. leucocapillus, Goul.

Inhabits coasts of Afric
Australian seas.

Fam. PROCE Indian Ocean ;
RIDÆ.

Genus DIOMEDEA,

D. exulans, L. (Gould
38).

SYN. Plautus albatrus, B. A. Vol. VII. pl.

Inhabits S. Ocean.

D. melanophrys, T in.
Vol. VII. pl. 43). In

D. chlororhynchos, Inck (Gould's *B. A.*
Vol. VII. pl. 42). s S. Ocean.

SYN. D. chrysostoma, Fo am (Gould's *B. A.*

Inhabits S. Ocean.

D. fuliginosa, Gmelin
VII. pl. 44).

SYN. D. palpebrata, Forster.
D. antarctica, Banks.
D. fusca, Audubon.

Inhabits Southern Ocean.

Genus PROCELLARIA, L.

Pr. gigantea, Gmelin (Gould's *B. A.* Vol. VII. pl. 45). Inhabits Southern Ocean.

Pr. glacialoides, A. Smith (Gould's *B. A.* Vol. VII. pl. 48).

SYN. Pr. tenuirostris, Audubon.

Inhabits S. Ocean.

Pr. Cookii, G. R. Gray (Gould's *B. A.* Vol. VII, pl. 51).

SYN. Pr. velox, Solander, MS.
Pr. leucoptera, Gould.

Inhabits Southern Ocean.

Pr. turtur, Solander (Gould's *B. A.* Vol. VII. pl. 54). Inhabits S. Ocean.

Genus PRION, Lacepede.

Pr. vittatus (Gould's *B. A.* Vol. VII. pl. 55).

SYN. Procellaria vittata, Forste
Pr. Forsteri, Latham.

Inhabits Southern Ocean.

Genus PELICANOIDES, Lacepede.

P. urinatrix, (Gould's *B. A.* Vol. VII. pl. 60).

SYN. Procellaria urinatrix, Latham.
Pr. tridactyla, Forster.
Puffinaria Garnottii, Lesson.

Inhabits S. Ocean; Bay of Bengal (apud Sundevall).

Genus PUFFINUS, Brisson.

P. major, Faber (*Pl. Enl.* 962; A. Smith, *S. Afr. Zool.*, Aves, pl. 56).

SYN. Procellaria puffinus, L.
Pr. grisea, Gmelin.
P. fuliginosus, Strickland.
P. cinereus, A. Smith.

Inhabits Atlantic ; Mediterranean ; S. Ocean.

Genus THALASSIDROMA, Vigors.

Th. oceanica, Kuhl (Gould's *B. A.* Vol. VII, pl. 65).

SYN. Th. Wilsonii, Bonaparte.
Procellaria pelagica, apud Wilson.

Inhabits N. and S. Oceans.

Tribe TOTIPALMATI.

Fam. PELICANIDÆ.

Ph.
TON, L.

Ph. æthereus, L. (the young ; Gould's *B.*
Vol. VII. pl. 73).

SYN. Ph. phœnicurus, Gmelin (the adult).

Inhabits Bay of Bengal ; Indian Ocean ; S. Seas, &c.

Ph. candidus (*Pl. Enl.* 369 ; Edwards, pl. 149, f. 2).

SYN. Lepturus candidus, Brisson.
Ph. melanorhynchos, Gmelin (the young).

Inhabits Bay of Bengal ; Indian Ocean ; S. Seas, &c.

Genus SULA, Brisson.

S. fiber (Gould's *B. A.* Vol. VII. pl. 78).

SYN. Pelicanus fiber et P. sula, L.
S. australis, Stephens.
S. braziliensis, Spix.

Inhabits Tropical Seas. Common in Bay of Bengal.

S. piscator (Gould's *B. A.* Vol. VII. pl. 79).

SYN. Pelicanus piscator, L.
S. candida, Stephens.
S. erythrorhyncha, Brandt.
S. rubripes, Gould.

Inhabits Tropical Seas. Common in Bay of Bengal, &c.

Genus PELICANUS, L.

P. onocrotalus, L. (Edwards, pl. 93).

SYN. P. roseus, Eversmann, } G. R. Gray.
Onocrotalus phœnix, Lesson, }

Inhabits S. Europe ; W. Asia ; Africa. A. stuffed head and neck, copious pendent crest 5 in. long, and with the rest of the feathers very unlike those of either Indian Pelican.

P. javanicus, Horsfield (Stephens, in Shaw's Zoology, XIII. 109, pl. 12).

SYN. P. onocrotalus of India, auctorum (also of Pallas?).
P. crispus (?), Bruch.

Hawasil, and *Gaganbher*, H. ; *Gara Polo*, Beng. (generic) ; *Lampipi*, Malay ; *Bukhul*, Java. Inhabits S. E. Asia and its islands. Common in India.

P. philippensis, Gmelin (*Pl. Enl.* 965).

SYN. P. roseus et P. manillensis, Gmelin.

Won-bo, Arracan ; *Walang kadda*, Jav. Inhabits S. E. Asia and its islands. More common in L. Bengal than the preceding species.

Genus GRACULUS, L.

Gr. carbo, L. (*Pl. Enl.* 927).

SYN. Carbo cormoranus, Meyer.
C. albiventris, Tickell, J. A. S. XI. 463,—the young.

Gho-ghur, H. ; *Khambo*, Sindh. Inhabits Northern hemisphere. Not common in most parts of India and never in L. Bengal. Most numerous towards the Himalaya.

Gr. sinensis (*Atlas* to Macartney's Embassy to *China*, pl.).

SYN. Pelicanus sinensis, Shaw.
Phalacrocorax fuscicollis, Stephens.
Ph. leucotis, Blyth.
Carbo leucogaster, Meyer.
C. nudigula, Brandt.

Inhabits Asia, chiefly to the eastward. In India, commonest towards the Himalaya, rare in the peninsula, and never seen in L. Bengal.

Gr. Linnæi, G. R. Gray (*Pl. Col.* 322).

SYN. Pelicanus graculus, L., apud G. R. Gray (nec apud Temminck).
P. leucogaster, Vieillot.
Carbo cristatus, Temminck.

Inhabits Europe ; Africa to C. G. Hope.

Gr. pygmæus (Hardw. *Ill. Ind. Zool.*)

SYN. Pelicanus pygmæus, Pallas.
Carbo javanicus, Horsfield.
C. melanognathus, Brandt.
Phalacrocorax niger, Vieillot.
Halieus africanus apud Sundevall.

Jograbhi, *Pan-koul*, H. ; *Pan-Kowa* (i. e. 'Water Crow'), *Pan-Kowri*, and *Pan-kouti*, B. ; *Kaben*, Sindh ; *Tong gyee*, Arracan ; *Pechuch*, Jav. Inhabits Asia and its Archipelago. Extremely common throughout India.

Genus PLOTUS, L.

Pl. melanogaster, Gmelin.

SYN. Pl. Vaillantii of India, auctorum.

Banwa, and *Pan Dubbi*, H. ; *Goyar*, B. ; *Teng-gyee*, Arracan ; *Dandang Ayer*, Sum. Inhabits S. E. Asia and its archipelago. Common throughout India.

Tribe LAMELLIROSTRES.

Fam. ANATIDÆ.

Hans (root of *Anser*, &c.), H.

Subfam. PHŒNICOPTERINÆ.

Genus PHŒNICOPTERUS, L.

Ph. roseus, Pallas.

SYN. Ph. antiquus, Temminck.

Bog-hans ('Heron Goose'), H. ; *Kaan Thunti*, B. Inhabits warmer regions of the old continent. Common in parts of India. It is the smaller Indian Flamingo.

Subfam. ANSERINÆ.

Div. 1. Swans.

Genus CYGNUS, L.

C. olor (*Pl. Enl.* 913).

SYN. Anas olor, L.
C. sibilus, Pallas.
C. mansuetus, Ray.
C. gibbu, Bechstein.

Inhabits N. Asia and of E. Europe, chiefly.

C. atrata (Gould's *B. A.* Vol. VII. pl. 6).

SYN. Anas atrata, Latham.
A. plutonia, Shaw.
Anas novæ hollandiæ, Bonnaterre.

Inhabits Australia.

Div. 2. Ordinary Geese.

Raj Hans, H.

Genus ANSER, Brisson.

A. cygnoides (*Pl. Enl.* 347).

SYN. Anas cygnoides, L.

Inhabits China, where domesticated. Unknown in the wild state. The domestic Geese of India are a hybrid race between this and the next species.

A. cinereus, Meyer (Gould's *B.E.* pl. 347,—very bad ; Yarrell's *Br. Birds* III., 53).

SYN. Anas anser, L.
Anser ferus, Gesner.
A. vulgaris, Pallas.
A. palustris, Fleming.

Inhabits Northern hemisphere: Common in India; somewhat rare in W. Europe.

A. brachyrhynchus, Baillion (Yarrell's *Br. Birds*, III. 64).

SYN. A. phœnicopus, Bartlett.
A. brevirostris, Thienem.
A. rufesceus (?), Brehm.

Inhabits N. hemisphere. Punjab.

Sub-genus BERNICLA, Stephens.

B. indica (Gould's *Century*, pl. 80).

SYN. Anas Indica, Gmelin.
Anser undulatus, Brandt.

Inhabits India generally, common in the cold season.

Div. 3. Perching Geese.

Genus DENDROCYGNA, Swainson. *Silli* H.; *Saral*, B.

D. major, Jerdon (*Ill. Ind. Orn.*, pl. 23). Inhabits India generally; Not rare in L. Bengal.

D. arquata (Horsfield, *Zool. Res. in Java*, pl.).

SYN. Anas arcuata, Cuvier.
A. javanica, Horsfield.
Mareca awsuree, Sykes.

Butunth, Sindh; *Tseet-tsa-lee*, Arracan; *Bilibi*, Sum.; *Melivis*, Jav. Inhabits India and Malay countries. Extremely common. *N. B.* The Australian species referred to this by Mr. Gould (*B. A.* Vol. VII. pl. 14), is obviously distinct and new.

Genus SARCIDIORNIS, Eyton.

S. melanotus (*Pl. Enl.* 937; Pennant's *Ind. Zool.*, pl. 11).

SYN. Anser melanotus, Pennant.

Nukta, H.; *Tau-bai*, Arracan. Inhabits India and Burmah. Not common in L. Bengal.

S. (?) *leucopterus*, Blyth, J. A. S. XVIII. Inhabits Burmah; Tenasserim provinces.

Genus NETTAPUS, Brandt.

N. coromandelianus (*Pl. Enl.* 949, 950; Hardw. *Ill. Ind. Zool*).

SYN. Anas coromandeliana, Gmelin.
Bernicla girra, Gray.
Dendrocygna affinis, Jerdon—winter dress.

Girja and *Girri*, H.; *Ghangerel*, B.; *Karagat*, Arracan. Inhabits India and Malay countries. Extremely common.

Div. 4. Shieldrakes.

Genus CASARCA, Bonap.

C. rutila (Gould's B. E. pl. 358).

SYN. Anas rutila, Pallas.
A. casarca, L.
A. rubra, Gmelin.

Surkhab and *Chukwa*, male, *Chukwi*, female, H. Inhabits Asia generally; N. Africa: rare in Europe: common in India.

Genus TADORNA, Leach.

T. vulpanser, Fleming (*Pl. Enl.* 53; Gould's B. E. pl. 357).

SYN. Anas tadorna, L.
A. cornuta, Gmelin.
T. familiaris, Boie.
T. Bellonii, Stephens.

Mekez (male), *Alikaz* (female), Cabul; *Shah Murghabi*, *Ali-jur gub*, and *Niraji*. Sindh. Inhabits Europe; Asia; N. Africa, Not common in L. Bengal; more so on the Indus.

Subfam. ANATINÆ.

Hans, H.; *Bigri*, B.

Genus ANAS, L.

Subgenus SPATULA, Boie.

Sp. clypeata (*Pl. Enl.* 971, 972).

SYN. Anas clypeata, L.
A. rubens, Gmelin.
A mexicana, Latham.
A. platalea, Vieillot.

Tridari, H.: *Alipat*, and *Kachuk Mal*, Sindh. Inhabits Europe; Asia; Africa; N. America. Common in India.

Subgenus ANAS.

A. boschas, L. (*Pl. Enl.* 776, 777.)

SYN. A. fera, Brisson.
A. domestica et A. adunca, L.
. curvirostra, Pallas.
A. pupurco-viridis, Schinz. } Varieties.
A. Breweri, Audubon.

Subz-gurdan ('green-neck'), Persian; *Niroji*, Sindh. Inhabits N. Hemisphere: in India, confined to the Upper Provinces; never L. Bengal, nor S. India.

A. pœcilorhyncha, Pennant (*Ind. Zool.* pl. 13; Hardw. *Ill. Ind. Zool*). Inhabits India generally (not migratory); Burmah; not very common in L. Bengal.

A. (?) *caryophyllacea*, Latham (Jerdon's *Ill. Ind. Orn.*, pl 34; G. R. Gray, *Ill. Gen. Birds*, pl. ;—bill and feet coloured erroneously).

SYN. A. erythrocephala, Bonnaterre.

Inhabits India generally; Burmah. Not common in L. Bengal.

Subgenus DAFILA, Leach.

D. acuta Pl. Enl. 954; Gould's B. E. pl. 365).

SYN. Anas acuta, L.
A. caudacuta, Ray.
A longicauda, Brisson.
A. tsitzihoa, Vieillot.

Kokarali, Sindh; *Sink-dum*, (*i. e.* 'Pin-tail'), Cabul. Inhabits N. Hemisphere. Extremely common throughout India.

Subgenus CHAULELASMUS, G. R. Gray.

Ch. streperus Pl. Enl. 958).

SYN. Anas strepera, L.
A. platyrhynchus, Ray.
A. kekuschia, Gmelin.
Chauliodus capensis, Swainson.

Sya-dum, Cabul. Inhabits N. Hemisphere; S. Africa. Rather common in India.

Subgenus MARECA, Stephens.

M. penelope (*Pl. Enl.* 825; Gould's B. E. pl. 366).

SYN. Anas penelope, L.
A. fistularis, Brisson.

Cheoon, Nepal. Inhabits Europe; Asia; N. Africa. Moderately common in India.

Subgenus QUERQUERDULA, Stephens.

Qu. (?) glocitans.

SYN. Anas glocitans, Pallas (nec Gmelin).
A. picta, Steller.
A. torquata, Mess.
A. formosa, Georgi.
A. baikal, Bonnaterre.

Inhabits N. E. Asia. Extremely rare in L. Bengal.

Qu. crecca (*Pl. Enl.* 947).

SYN. Annas crecca, L.

Tulsia Bigri, B.; *Juruku*, or *Churuku*, Cabul. Inhabits Europe; Asia; N. Africa. Common in India.

Qu. circia (*Pl. Enl.* 946).

SYN. Annas querquerdula et A. circia, L.

Inhabits Europe; Asia N. Africa. Extremely common in India.

Subfam. FULIGULINÆ.

Ghotye, Kabul.

Genus FULIGULA, Stephens.

Subgenus BRANTA, Boie.

Br. rufina (*Pl. Enl.* 928).

SYN. Anas rufina, Pallas.
A. erythrocephala et A. cinerea, Gmelin—young.
Callichen ruficeps, Brehm.

Nul Gunar, Cabul. Inhabits Europe; and Asia; rare in W. Europe. Not rare in L. Bengal, in December and January.

Subgenus FULIGULA.

F. ferina (*Pl. Enl.* 803).

SYN. Anas ferina, L.
A. rufa, Gmelin.
A. ruficollis, Scopoli.

Lal Muriya, B. Inhabits N. Hemisphere. Moderately common in L. Bengal.

F. marila (*Pl. Enl.* 1002).

SYN. Anas marila, L.
A. frænata, Sparrman.
A. subterranea, Scopoli.

Inhabits N. Hemisphere; Nepal.

F. cristata, Ray (*Pl. Enl.* 1001, 1007).

SYN. Anas fuligula, L.
A. colymbis, Pallas.
A. scandiaca, Gmelin.
A. latirostris, Brunnich.
A. notata, Boddaert.

Duburi, B.; *Ablak*, Cabul. Inhabits N. Hemisphere. Moderately common in India.

F. nyroca (*Pl. Enl.* 1000).

SYN. Anas nyroca, Guldenstadt.
A. peregrina et A. Africana, Gmelin.
A. Gmelini, Latham.
A. glaucion, Pallas.

Lal Bigri, B. Inhabits Europe; Asia; N. Africa. Tolerably common in India: exceedingly so in some seasons.

Subfam. MERGINÆ.

Genus MERGUS, L.

M. castor, L. (*Pl. Enl.* 951).

SYN. M. merganser, L.
M. Raii, Stephens.
M. orientalis, Gould, P. Z. S. 1845, p. 2.

Khoruk, Cabul. Inhabits N. Hemisphere. Very rare in India, except towards the Himalaya.

Fam. PODICIPIDÆ.

Genus PODICEPS, L.

P. cristatus (*Pl. Enl.* 400, 941, 944).

SYN. Colymbus cristatus, L.
C. cornutus, Brisson.
C. urinator, Scopoli.

Inhabits Old and New continents; Australia?

P. philippensis, Gm. (*Pl. Enl.* 905, 945).

SYN. Colymbus minor, et C. hebridicus. Gmelin. C. fluviatilis, Brisson.

Durbari, B. ; *Puudub*, Bhagulpore. Inhabits Old continent. Very common in India.

APPENDIX, No. 1.

Genus PSITTACUS, subgenus CHRYSOTIS, p. 2.

Chr. leucocephalus, No. 8 (A).

Genus LORICULUS, p 9.

L. asiaticus, No. 46. (A).

Psittacus philippensis and Psittacula rubrifrons, refer to a nearly allied species.

Genus CORIPHILUS, p. 13.

C. notatus No. 90 (A).

Genus HALCYON, p. 46

H. amauropterus, *Pearson*, J. A. S X. 635. Inhabits L. Bengal (Sundarbans especially) ; Arrakan ; Tenasserim Provinces ; very abundant along the eastern coast of the Bay of Bengal, not yet observed on the western. Not rare in the vicinity of Calcutta.

Genus PICUS, p. 62.

P. atratus, *Blyth*, *J. A.* S. XVIII, p. Inhabits Tenasserim Provinces.

LEIOTHRICANÆ ? p. 99.

Genus. MUSCITREA, Blyth.

M. cinerea, *Blyth*, *J. A. S.* XVI, 122. Inhabits Arrakan.

—*Calcutta Review. Cat. Bengal As. Soc Mus. Sir J. E. Tennent, Ceylon. Jerdon's Birds of India. Bickmore Archipelago. Mr. Russel Wallace, Malay Archipelago.*

Order.

I. SCANSORES or Climbers.

II. RAPTORES or Birds of Prey.

III. INSESSORES or Perchers.

IV. GEMITORES or Pigeons.

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THE BIRDS OF I

ORDER I.—Scansores or Climbers.

Fam. Psittacidæ, (Pages 457 to 459.

Sub-Fam. Cacatuinæ, 2 gen. 5 spec. viz., 1 Calyptorhyncus, 4 Cacatua.

Sub-Fam. Psittacinæ, Parrots, 3 gen. 13 sp. viz., 1 Coracopsis : 2 Tanygnathus, 10 Palæornis.

Sub-Fam. Platycercinæ, Ground Parakeets, 2 gen. 2 sp. viz.,
1. Aprosmictus : 1 Platycercus.

Sub-Fam. Loriinæ, Lories, 4 gen. 1 sub-gen. and 13 sp. viz.

Section i. tongue not filamented.

2. Electus, 3 Loriculus.

Section ii. tongue filamented.

3 Lorius, 4 Eos. 1 Trichoglossus.

ORDER II.—Raptores or Birds of Prey.

Tribe I. Diurnæ, Page 460.

Fam. Falconidæ.

Sub-Fam. Falconinæ, 2 gen. 2 sub-gen. 15 sp. viz., 5 Falco, 2 Hypotriorchis, 5 Tinnunculus, 3 Hierax, Page 461.

Sub-Fam. Perninæ, 2 gen. 3 sp. viz., 2 Baza, 1 Pernis.

Sub-Fam. Elaninæ, 1 gen. 1 sp. viz., 1 Elanus.

Sub-Fam. Circætinæ, 2 gen. 3 sp. viz., 1 Circætus, 2 Hæmatornis.

Sub-Fam. Circinæ, 2 gen. 6 sp. viz., 5 Circus, sp. 1 Poliornis.

Sub-Fam. Accipitrinæ, 3 gen. 6 sp. viz, 3 Accipiter ; 1 Micronisus ; and 2 Astur, Page 462.

Sub-Fam. Thrasaetinæ, 2 gen. 5 sp. viz., 1 Pseudastur ; 4 Spizaetus.

S milinæ, 4 gen. 8 sp. viz., 1
re at 200 per cent.
; 1 Ictinaetus ; 1 Hie-
BIRD ISLAND. Called
oqnok, lies midway between 4 sp. viz., 1
I watty group, in the Eastern Arc
high solitary mountain resting sp. viz., 1
of the sea, with a truncated cone 1 Haliæ-
except by myriads of birds, but
to the island to collect the eggs
also occurs on the island.—*Horsburgh* iz, 1
ffing Islands.
ypa,
D LIME, ENG.

...	...FR.	Ptits-chei-Klei	...MA
im...	...GR.	Liga...	...
	... ...IT.	Pissini	...
Kilut ; gatap	.. MALAY.	Banka...	...

ORDER III.—Insessores or Perchers.

Sub-Ord. Picæ.

Fam. Bucerotidæ, Page 467.

Sub-Fam. Bucerotinæ, 1 gen. 19 sp. viz., 19 Buceros.

Sub-Fam. Irrisorinæ, 1 gen. 1 sp. viz., Irrisor erythrorhynchus, Page 468.

Fam. Upupidæ, 1 gen. 2 sp. viz., 2 Upipa epops and Senegalensis.

Fam. Halcyonidæ, 5 gen. 23 sp. viz., 2 Dacelo : 8 Halcyon : 2 Todirhamphus : 2 Ceryle : 9 Alcedo : 2 Ceyx, Page 469.

Fam. Coracidæ, 1 gen. 4 sp. viz., 4 Coracias pileata ; garula, Indica, affinis : 2 Eurystomus, orientalis, Pacificus, page 470.

Fam. Meropidæ, 2 gen. 8 sp. viz., 2 Alcemerops : 6 Merops.

Tribe Zygodactyli. them. It is
Sub-Div. 1 Climbers, viz. of a greenish
on the breast
Fam. Picidæ, Page 470. r bird seems
Sub-fam. Campephilenæ, 6 C. brevirostris
Campephilus, viz., 2 Hemicer n, and other
phus : 3 Chrysocolaptes : 2 Br go ; it is found
Tiga, Page 471. m Himalaya,
Sub-fam. Gecininæ, 4 gen. and on the
Gecinus : 1 Gacinculus : 3 Mei on Island S. of
cropternus, Page 471. d at Sacrifice
Sub-fam. Picinæ, 2 gen. 15 s The nests are
cophus ; 14 Picus, Page 472. nestone cliffs,
Sub-fam. Picumninæ, 2 gen. upheaval but
Picumnus : 2 Sasia, Page 473. ar production,
Sub-fam. Yuncinæ, 1 gen. n to those en-
Yunx torquilla. Archipelago,
Sub-fam. Indicatorinæ, 1 g or deciding the
Indicator xanthonotus. ich it is found.
Sub-Division II. Perchers, £500 to £583
FAM. Megalamidæ, 2 ge Dr. Jerdon says
Megalaima ; 1 Megalorhync om the Collocalia
FAM. Cuculidæ, Page 4 builds in the Nico-
Sub-fam. Cuculinæ, 3 east coast of the Bay
viz., 9 Cuculus : 2 Surnic southwards to Java,
1 Eudynamis, 2 Oxylop of Collocalia occur in
Sub-fam. Phœnicop an Archipelago, as far as
19 sp. viz., 1 Dasylo ts in the Mauritius and
3 Phœnicophaus : 5 Ze the Pacific. The nests
4 Taccocaia : 5 Cent over the Malay and Phi-
FAM. Trogonidæ, lippine Archipelagos, on the Malabar Coast,
and the Tenasserim Provinces, wherever there

BIRD CHERRIES. See Cerasus.

BIRD, Dr. James, belonged to the Bombay Medical Service, in which he rose to be a Member of the Medical Board. He was Secretary to the Bombay Asiatic Society from 1844 to 1847. He wrote an Analysis of the Murat-i-Ahmedi, a history of Guzerat. Lond. As. Trans. 1833, Vol. I. p. 117. Biographical sketch of Capt. McMurdo.—Ibid, 123. Memoir on the country from Poona to Kittoor. Ibid, Vol. II. p. 65. Account of the ruined city of Beejapore. Bom. As. Trans. Vol. I p. 367. Translation of Cufic inscriptions from Southern Arabia.—Ibid, 239. Translation of inscriptions at Burra and Bajah.—Ibid, 438. Introductory notice to the history of Sind.—Ibid, 402. Bibliographical notice of Arabic and Persian library at Cutch Bhooj.—Ibid. On Bactrian, Hindoo, and Roman coins in the Bombay collection.—Ibid, 293. Account of temple of Somnauth, from the Persian.—Ibid, Vol. II. p. 13. On the Christian faith in Arabia, and Himyaritic inscriptions from Aden and Saba.—Ibid, 30. Hindoo gold coins, and zodiac coins of Jehangeer.—Ibid, 55 On the Æthiopic family of languages in Eastern Africa.—Ibid, 294 Memoir of General Kennedy.—Ibid, 417. Historical geography of Hindustan, and on the origin of the social state among the Hindoos. Bl. As. Trans. 1840, Vol. IX. p. 848. Account of the city of Balkh and its neighbourhood, extracted from Persian authorities. Bom. Geo. Trans. Vol. II. p 60 Illustrations of the Arab and Persian geographers, or the geography of the Middle Ages.—Ibid, 58. Historical researches on the origin and principles of the Buddha and Jaina religions, with accounts of the caves of Western India. Bombay, 1847, I. Vol. folio—*Dr. Buist's Catalogue.*

BIRD EYE PEPPER, Eng. Capsicum baccatum.

BIRD FEATHERS from the cranes and king-fishers, form a considerable article of trade in Southern Asia. The feathers of a large, green king-fisher, are exported from Madras, one lac at a time, to Singapore, to be used by the Malays, Javanese and Chinese. They sell there at 200 per cent. profit. See Feathers.

BIRD ISLAND. Called by the Malays, Pulo Manok, lies midway between Ceram and the Serwatty group, in the Eastern Archipelago. It is a high solitary mountain resting on the bosom of the sea, w[illegible]n a truncated cone, uninhabited except by myriads of birds, but natives resort to [illegible] and to collect the eggs: sulphur als[illegible] [illegible]rs on the island.—*Horsburgh.* See Ke[illegible] [illegible]lands.

[illegible]ME, Eng.

[illegible]	...Fr.	Ptits-chei-Klei	...Malay
[illegible] ...	...Gr.	Liga... ...	...Sp.
[illegible] ...	...It.	Pissini ...	...Tam.
[illegible]tap	...Malay.	Banka... ...	...Tel.

The substances known in Europe under this name are the viscid juices of several trees. One is prepared in Europe from the middle bark of the holly by boiling it seven or eight hours in water, then laid in heaps on the moist ground to ferment, with stones over it, to press it down till it passes into a mucilaginous state, then pounded, washed and kneaded till free from extraneous matter and kept for four days in pots to ferment and purify itself when it is fit for use. One of these, in Southern India, is obtained from the Palay, the Isonandra acuminata The best is prepared from the outer covering of the fruit and tender twigs and bark of the Jack tree, but several of the Arto-carpi yield it.—*Rohde. Tom.*

BIRD or SEA COW ISLAND, in lat. 3° 43' S. long 55° 16' E., the most northerly of the Seychelles, is a small low sandy isle.—*Horsburgh.*

BIRDS' NESTS.

G'ne-ta-thay ..	..Burm	Ababil-ka-ghous-lah	...Hind.
Indiamsche-vogel-nestjes... ...	...Dut.	Nidi-di-Tunchino	.....It.
Nids de Tunquin...	...Fr.	Susuh......	Jav.
Indianische-Vogelnester... . .	...Ger.	Sarang-burong...	...Mal.
		Nidos de la China...	Sp.

The edible birds' nests of Southern and Eastern Asia, are perhaps obtained from more than one species of swallow, but the La-wit of the Javanese, is certainly one of them. It is a small dark coloured swallow of a greenish hue on the back, a bluish hue on the breast and no white mark. Another bird seems to be the Collocalia nidifica, C. brevirostris McClelland. It inhabits Java, and other Islands of the Eastern Archipelago; it is found in the Assam Hills, the Sikkim Himalaya, Neilgherries, Wynaud, Ceylon, and on the Western Coast of India at Pigeon Island S. of Honore, the Vingorla rocks, and at Sacrifice rock, 20 miles S. of Tellicherry. The nests are found in the caverns of the limestone cliffs, throughout the areas of simple upheaval but not elsewhere; so that this singular production, which from its value is well known to those engaged in the commerce of the Archipelago, furnishes one of the best tests for deciding the character of the regions in which it is found. In Java, they are sold at from £500 to £583 per picul of 133⅓ lbs. avoird. Dr. Jerdon says that the best nests are from the Collocalia linchi (C. fuciphaga) which builds in the Nicobar islands and along the East coast of the Bay of Bengal from Arracan southwards to Java, but several other species of Collocalia occur in the islands of the Eastern Archipelago, as far as New Guinea, one occurs in the Mauritius and one in the islands of the Pacific. The nests are therefore found all over the Malay and Philippine Archipelagos, on the Malabar Coast, and the Tenasserim Provinces, wherever there are caves to afford it shelter and protection, and these, as mentioned, are most frequent in the limestone formation. But Java and Borneo seem to be their chief resort. The celebrated caves of Karang-bolong (hollow-rocks) situated in the province of Baglen in Java, and on the shore of the southern sea, may be described in illustration. The entrance into these caves is at the sea level, and at the foot of limestone rocks several hundred feet in height, in one place it is 200 feet perpendicular, before coming to the first ledge. The mouths of the caves are about 18 feet broad and 30 high, while, within, they expand to breadths of from 60 to 114 feet, and to heights of from 420 to 480, the sea penetrating them to the extent of one-fourth of their length, and in rough weather rendering them inaccessible. The descent of the collectors to the caves is effected by narrow rattan ladders, usually about 74 feet in length, attached at top to a stout tree. Within the caves there are bamboo scaffoldings, in order to reach the nests, which are detached from the sides by the hand, and from the roof by hooks attached to long poles. There are three periods for making the collection; April, August, and December. The nest-gatherers are persons bred to their dangerous calling, and before the commencement of the first gathering, plays are acted in masks, and there is feasting on the flesh of buffaloes and goats to invoke the aid of the "lady queen of the south," (Nai ratu kidul), an imaginary being, without whose tutelary aid the work of robbing the nests would not, as they think, prosper. After the crop has been taken, the caves are hermetically sealed against human ingress. The whole annual gathering, which is effected at little cost, amounts to from 50 to 60 piculs yearly, or, on an average, to 7,370lbs. This, which is worth at Batavia about £18,000, forms a convenient and unobjectionable branch of the revenue of the Netherland Government, since it is paid by strangers in the indulgence of a harmless folly. Esculent swallows' nests are, however, by no means confined, as in the instance now given, to the sea coasts, for they are found in caves in the interior both of Java and Borneo, and no doubt they exist also in other islands. On the north-western side of Borneo, and not far from the banks of the river Baram, birds'-nest caves are found 140 miles from the sea by the course of the river. They consist of three chambers, one of which is reckoned to be no less than 200 fathoms in length. These are the property of the powerful tribe of the Kayan, and like those of Karang-bolong are carefully guarded.—(*Crawfurd, Dic. p. 54 and* 55.) The nests used by the Chinese, are brought principally from Java and Sumatra; though they are found on most of the rocky islets of the Indian Archipelago. The nests are composed of a mucilaginous substance, but as yet have never been analyzed with sufficient accuracy to show their constituents. It is supposed by some that the Gelidium corneum enters into their composition, but it is more probable that they are formed by mucus eliminated from the stomach of the swallow. Externally, they resemble ill concocted, fibrous isinglass, and are of a white color, inclining to red; their thickness is little more than that of a silver spoon, and their weight from a quarter to half an ounce. When dry, they are brittle and wrinkled; the size is little larger than a goose-egg. Those that are dry, white and clean, are the most valuable. They are packed in bundles, with split rattans run through them to preserve their shape. The quality of the nests varies according to the situation and extent of the caves, and the time at which they are taken. If procured before the young are fledged, the nests are of the best kind; if they contain eggs only, they are still valuable; but if the young are in the nests or have left them, the whole are then nearly worthless, being dark-coloured, streaked with blood, and intermixed with feathers and dirt. The nests are procurable twice every year; the best are found in deep, damp caves, which, if not injured, will continue to produce indefinitely. It was once thought that the caves near the sea-coast were the most productive; but some of the most profitable yet found, are situated fifty miles in the interior. This fact seems to be against the opinion that the nests are composed of the spawn of fish or of biche de mar. Everywhere, the method of procuring these nests somewhat resembles that of catching birds in the Orkney isles. Some of the caves are so precipitous, that no one but those accustomed to the employment from their youth, can obtain the nests, 'being only approachable,' says Crawfurd, 'by a perpendicular descent of many hundred feet, by ladders of bamboo and rattan, over a sea rolling violently against the rocks. When the mouth of the cave is attained, the perilous task of taking the nests must often be performed by torchlight, by penetrating into recesses of the rock, where the slightest slip would be instantly fatal to the adventurers, who see nothing below them but the turbulent surf making its way into the chasms of the rock. After they are obtained, they are separated from feathers and dirt, are carefully dried and packed, and are then ready for the consumer. The Chinese, who are the only people that purchase them for their own use, carry them in junks to the Chinese market, where they command extravagant prices; the best, or white kind, often being worth $1,800 per pecul, which is nearly twice their weight in silver. The middling kind is worth from $1,200 to $1,800; and the worst, or those procured after fledging

$150 or $200 per pecul: it is according to these three qualities, that the duty is now levied. Latterly nests of first quality fetch £3-2-8 the pound; those of the second quality 9s. 4½d. and the third sort only 3s. 1d. The most part of the best kind is sent to Peking for the use of the court. It appears, therefore, that this curious dish is only an article of expensive luxury among the Chinese; the Japanese do not use it at all, and how the former people acquired the habit of using it is only less singular than their persevering in it. They consider the birds' nests as a great stimulant and tonic, but its best quality, perhaps, is its being perfectly harmless or useful in so far as it resembles gelatine. Certainly other gelatinous substances used as food would be equally serviceable. The labor bestowed to render it fit for the table. is enormous; every feather, stick, or impurity of any kind is carefully removed; and then, after undergoing many washings and preparations, it is stewed into a soft, mucilaginous jelly.

The sale of birds' nests is a monopoly with all the governments in whose dominions it is found. It is estimated by Crawfurd that about 243,000 pounds, at value of $1,263,570; are annually sent away from the Archipelago, most of which is brought to China. Java alone sends about 27,000 lbs.; mostly of the first quality, estimated at $60,000.

The most of the trade heretofore has been in the hands of the Chinese and Portuguese, and foreign merchants have had but little to do with it; no account of the amount or value of the importation can therefore be obtained. This is the reason why the estimated importation is placed so low in the Tabular Statement, as it is perhaps not one half of the amount brought to China.—(*Morrison*, 143.)

A few birds' nests of the esculent swallow are to be got from a rocky island about 20 miles South of Tellicherry, named Sacrifice Rock. Small quantities are occasionally brought to Bombay from the Malabar Coast, which are re-exported to China. The only preparation the birds' nests undergo is that of simple drying without direct exposure to the sun; after which they are packed in small boxes. The Edible-nest swallows, or swiftlets, are so numerous in the limestone caves on the islets and islands on the Tavoy coast, that the Government revenue from the bird nest farm in 1847 was nearly eleven thousand rupees: but in 1849, it fell to less than seven thousand rupees. At Mergui they are not so numerous. The nests, which are taken before the bird lays its eggs, sell in China for about forty-five rupees the pound.

In relation to the identification of the species of swallows, Mr. Blyth says: "as regards the *Hirundo esculenta* of Linnæus, there is no reason to suppose that this, as described, with yellow irides and white-tipped tail, has any prototype in nature: the latter would be an anomaly throughout the Cypselidæ, but may refer perhaps to the white tail-markings of some real hirundo, erroneously supposed to be the constructor of the edible nests. Dr. Horsfield gives the species termed *lawet* by the Javanese as *Hirundo esculenta*, Osbeck, stating that the specimens which he examined in Java, and those which he took to England, differ from Latham's description in being uniformly of a blackish colour, without a white extremity to the rectrices. Another species, the *linchi* of the Javanese, he gives as *H. fuciphaga*, Thunberg stating that 'its nest is constructed of mosses and lichens, connected with the same gelatinous substance which composes the edible nest of the preceding species.' In the Journal of the Indian Archipelago, the same two species are distinguished by the names *lawet* and *lyntye*, and the nest of the latter is described to be without the least value. And, it is added: 'the residence of the swallows, or swiftlets, termed *lintye*, in the caves, contributes greatly to the injury of the others, for which reason they are destroyed as much as possible at each gathering. The nests which they make are constructed of grass-stalks. They are, however, of the same form, and are as artfully made as the others.' 'Heer Hooyman likewise states, that besides the *lawet*, other species resort to the same caverns, which are named *momo*, *boerong-itam*, *boerong-zoekoe*, and *lintje*. 'These,' he adds, 'are very similar to each other, excepting the second, which has the head larger; and the feathers of all are entirely black. The nests which they construct are black and friable, composed of a light down,' (agglutinated ?)—'An opinion prevails that the presence of these birds is injurious to the caverns, on which account they are driven away as much as possible.' Another writer in the same volume of the Bataviaasch Genootschap, mentions the *momo* or *boerong-itam* (thus bringing together M. Hooyman's first two species,) as a large kind with plumed tarsi, indicating thus a true cypselus, which is probably the constructor of the nests assigned by Dr. Horsfield and others to the *linchi*. Assuredly, however, the *Collocalia fuciphaga*, *Hirundo fuciphaga*, (Thunberg,) *linchi* or *lintye* of the Javanese, identical upon comparison with Javanese specimens, would appear to be the sole producer of the numerous nests gathered on the rocky coasts of the Bay of Bengal: and the often quoted notice by Sir G. Staunton, in his account of the Earl of Macartney's Embassy to China, must refer either to *C. fuciphaga*, or to an entirely new species, which is hardly to be supposed, in the locality, for, he remarks: 'the birds which build these nests are small grey swallows, *with bellies of a dirty white*. The white belly is characteristic of *C. fuciphaga*; and this particular species occurs abundantly on parts of the coast of the Malayan Peninsula, in the Nicobar Islands, and the Mergui Archipelago, and so high as on certain rocky islets off the southern portion of the coast of Arracan, where the nests are annually gathered and exported to China. From all this range of coast Mr. Blyth had seen no other species than fuciphaga, nor does it appear that any other has been observed; and he had examined a multitude both of the adults and of young taken from the nests, collected in the Nicobars and preserved in spirit, all of which were of the same species. Still, what appears to be *C. nidifica* inhabits the mountains far in the interior of India, though hitherto unobserved upon the coasts; and it is worthy of notice that *C. fuciphaga* does not appear to have been hitherto remarked inland in this country." It may however, says Dr. Mason, be here added that *C. fuciphaga* is constantly seen inland in the Tenasserim Provinces. The Karens in the valley of the Tenasserim in the latitude of Tavoy, are well acquainted with the bird, and they say it crosses the mountains to and from the interior every year. That it is the same species there can be no doubt, for the Karen name of the bird is "the white swallow," from its white belly.—*(Mason.)* Mr. Low, also, writing from Sarawak, tell us that the edible nests of the little swallows are all of the black kind, the beautiful white ones being only found in the rocky caves on the borders of the ocean: they are built by two different and quite dissimilar kinds of birds, though both are swallows. That which produces the white nest is larger and of more lively colours: its belly is white, but these birds are very rare in Sarawak. Skins of the smaller and darker bird, which inhabits the lime-stone mountains of the interior he had sent home. This kind is never found on the sea-coast, nor does the other bird ever frequent inland places. The nest produced by the small bird is of a much inferior kind, being, like the bird itself, of a dusky colour, and mixed with feathers: that of the coast is white and transparent, and resembles a net-work of isinglass. Feathers are not mixed with this, and it is free from all other impurities: it is this kind which sells for so high a price in China. The nests are found in deep and dark caves, in situations extremely difficult of access, sticking to the sides of the rock in considerable numbers. Stages and frames of bamboo are erected along the sides of the precipices leading to the caves, and on these fragile pathways the Dyaks advance to their mouths; in other situations they are let down by rattans from the heights above. Both means are highly dangerous, and accidents are said frequently to occur. The black kind are sold in Sarawak at four rupees per pound, but the price varies according to the demand and supply.—*(Low's Sarawak, p. 316.)*

In order to form a just idea of the dangerous work which must be performed by the collectors the following is an exact description of it. To enter the caves you descend one precipice of two hundred feet, nearly perpendicular, by means of one, two or three rattan ladders (according to the greater or less height) which are 5 inches broad and each 77 feet long. The lateral or principal ropes are composed of wild rattans twisted together to a thickness of two inches, and having wooden steps two inches thick and thirteen inches distant from each other. The upper end of the ladder is well fastened to a strong tree by black ropes and the lower end is placed on one of the rocks.

In order to reach one of the caves, they make use of two rattans each one hundred and eight feet long; but in some cliffs, bamboos are used 12 to 18 feet long which are placed one above the other—that they may steady themselves by holding the upper when walking along the under. The entrance of the caves is about 48 feet broad, more or less, and 30 high. The interior is from 60 to 114 feet broad and from 420 to 480 high. The bottom of most of the caves is washed for about one quarter of its length by the sea, three, four or more feet in depth. The whole of the interior appears to consist of limestone. In the caves are stages, made of bamboos which are bound fast with ropes to the walls of the rocks on which the collectors stand. It often happens, in consequence, that the cliffs on which the ropes of the stage are fastened become loosened and the whole stage is precipitated, which sometimes occasions a loss of life. Most of the nests are taken from the wall by the hand, and those which are on the roof, by an iron hook fastened to a long bamboo. The swallow named *lawet*, has a compressed head, which, however, with its thick and rounded feathers appears large in comparison with the body. The beak is broad and wide with a black awl-shaped small point bent downwards. The eyes are black and tolerably large, and the tongue arrow shaped. The throat is very short as well as the bones of the wings and feet. The feet consists of four toes of which three are in front and one behind. All the toes have black, curved, sharp, and tolerably long claws, so that the bird can every where lay fast hold of the rocks and cliffs. The tail is almost as long as the whole body. When the throat, the wings and the head are spread out, the bird has a circular appearance. The colour is greyish black inclining a little to green. On the back near the tail to the belly the blackish passes into mouse-colour. The breast is bluish.

Besides these, another species called lintye inhabits some caves. These are somewhat smaller, and have a white breast. In other respects they agree completely with the lawet. The nests which they make are constructed of grass stalks. They are, however, of the same form, and are as artfully made as the others, but are without the least value. The residence of the lintye swallows in the caves, contributes greatly to the injury of the caves, for which reason they are destroyed as much as possible at each gathering.

On the walls of the rocks, the birds build their nests in horizontal layers close to each other, at different heights from 50 to 300 feet, as they find room, and leave no space open, provided the walls are clean and dry; for when they prove damp they forsake their nests. When the sea attains a high level, which is usually accompanied by a strong surf beating against the cliffs, a percolation of water is caused which is in the highest degree prejudicial.

In the mornings at break of day the birds fly out with a great noise to seek their food, to the neighbouring places, in the east monsoon or dry season, but in the west monsoon or rainy season, they do not go far. They return to their caves about 4 o'clock in the afternoon. They feed upon different kinds of insects, hovering above the stagnant waters, for which their wide open beak is very useful. Their greatest enemies are the birds ulang and alap alap, who pull the young swallows out of the holes and seize many as they fly out of the caves. They form the nests, by returning the strongest and best fragments of the food which they have eaten. When the nests have been all plucked, the entrances are closed with bamboo fences, the doors are sealed, and the rattan ladders are brought back to the store-house. The nests in the store-house are, some days afterwards, weighed, and packed in hampers (geboks, each 25 catties), made very tight with cross ropes, and sealed with the stamp of the overseer. Pieces of paper are placed on each hamper, with the number and the nett weight of the nests written on it. All this having been done, the hampers are surrounded with cocoanut leaves, prepared in the manner of kadjang mats. Every two hampers are then made fast to a piece of bamboo (pikol an) provided with two props, in order that, when resting on the way, the hampers may not touch the ground. They are besides covered with pinang bark, so that when it rains the water can run off. Finally they are all sent to Surakarta in order that they may be there sorted. The evening before the birds' nests are sent off another feast is given, and on the following morning, all the coolies depart with their hampers for Surakarta amidst the playing of the gamelang and shouts of hurrah.—*Journal of the Indian Archipelago, No. III, September* 1847, *pages* 101 to 108.

BIRDS OF PARADISE.

Papua Birds...... ..	ENG.	Burong Mati	ARU.
Manuk devata........	JAV.	„ Papua......	TERN.
Ave de Pardiso...	PORT.	Soffu........	„
Burong devata...	MALAY.	Sioffu............	„

Birds of Paradise, named by the Indians, birds of Ternate; (*Valmont de Bomare, Histoire Naturelle, IV.* 296.) by the Ternatians birds of God; (*Valentyn Indian Archipelago, Vol. III. p.* 306-313.) by the Dutch, king's birds; (*Forrest's Voyage to New Guinea*, 142). and by the Spaniards, birds of the sun, (*Aldrovandus, Valmont de Bomare, Vol. IV. page* 297. The name Manuco-devata, or Bird of God, has been adopted in modifications by several naturalists. (Margrav Brasil, 207; Rai, Syn. Av. 21-27, Briss. 2, 130. See Buffon *Hist. Nat. des. Ois. III.* 207.) The Birds of Paradise (*Pritchard Researches*, I, 83.) the most beautiful of winged creatures, were fabled by the fancy of the Arabian poet, as visitants from heaven to earth; and among the islanders of the Archipelago it is believed that, when old, and feeling the approach of death, the Paradise Birds fly upward towards the sun; but having spent their strength in the inferior world, fail to reach again their celestial home, fall and die as they descend—a graceful fancy not forgotten by the moralist or the poet (*See Caomens, Lusiad, Book* X.) No representation can exaggerate their beauty, or excel the lustre of their plumage. They were supposed footless, and incapable of alighting, until it was discovered that the Indians cut of their feet before preserving them. They are caught in New Guinea, the Arru islands, Misol, Salwatti, Wagiou, (*Crawfurd, Journ. Ind. Arch. IV.* 182). In the nutmeg season also they come from their breeding grounds in the interior of N. Guinea and sail in flocks of thirty or forty over the eastern borders of the Archipelago. They form valuable articles of export. Europe is supplied chiefly from Batavia, China from the Molucca and Arru isles, while the natives of that remote group, with many of the Malays, adorn their casques at martial pageants with feathers plucked from their glittering wings. (*Valentyn, qu. Forrest Voyage to New Guinea*, 142.) In Linnæus genus Paradisea, many birds were included now transferred to other genera, but three species of Birds of Paradise are still included in that genus. These are P. apoda, *Linn*, with back of deep maronne brown, contrasting with the golden fulvous neck. It is the P. Major of Shaw. It has peculiar dense feathering on the breast. P. Papuana, *Beckstein* (P. Minor, *Forster*) back of a pale golden brown, shading with the golden fulvous of the neck which is continued all round the neck only in this species. P. Rubra *Cuvier*, (P. Sanguinea, *Shaw*,) is bright golden fulvous on the crown, neck and back its auxiliary plumes are gorgeous red. All have short velvetty feathers of a golden fulvous hue on the crown and nape, with the throat and forehead deep, dark, satiny green.

All those met with in commerce have small feet, head and wings, owing to the mode of preparing them. The living bird is a model of symmetry. The adult male birds have ornamental tufts of long airy plumes growing from under the wing like the purple honey sucker of India, and in two species the middle pair of tail feathers are long wiry barbless stems, and the red kind have a broad flat ribband of whale bone substance. The beautiful little creature popularly known as the king-bird of paradise; the Cincinnurus regius, has a deep emerald green disc on the middle tail-feathers; the Samalia magnifica has huge neck tufts. In the Parotea sex-setacea, the feathers of the flanks are a large floccose mass. The splendid Lophorina superba has its scapulary feathers enormously developed like an erectile mantle, and is peculiarly adorned on the breast. The entire group is peculiar to Papua or New Guinea, and the Arru islands. They are shot with sharp or blunt arrows. They are as omnivorous as the crow, fond of displaying their plumage, and like the Turkeys, argus pheasants and the dancing bird of America, Rupicola cayana, are fond of displaying their plumage. It is not however solely to the genus Paradisea that the term Birds of Paradise is given. Mr. Russel Wallace, applies it to the following:—

Paradisea apoda, the Great Paradise Bird in the Arru Islands.

Paradisea papuana, the Lesser Paradise Bird in New Guinea, Mysol and Jobie.

Paradisea rubra, the Red Paradise Bird, in Waigiou.

Cincinnurus regius, the King Paradise Bird, in New Guinea, Arru Islands; Mysol, Salwatty.

Diphyllodes speciosa, the Magnificent, in New Guinea, Mysol and Salwatty.

Diphyllodes Wilsoni, the Red Magnificent, in Waigiou.

Lophorina atra, the Superb, in New Guinea.

Parotia sexpennis, the Golden Paradise Bird, in New Guinea.

Semioptera Wallacei, the Standard Wing, in Batchian and Gillolo.

Epimachus magnus (*Upupa magna*, Gm., *U. supurba*. Lath.). Body generally black or brownish-black; tail graduated, thrice as long as the body (Lesson says three feet in length, French); feathers of the sides elongated, raised, curled, glittering on their edges with steel-blue, azure, and emerald green, like precious stones; the head and the belly lustrous also with steel-blue, &c. In truth, language fails to convey any just idea of the magnificence of the species. It inhabits the coasts of New Guina.

Seleucides alba, the Twelve Wired Paradise Bird, in New Guinea and Salwatty.

Ptiloris magnifica, the Scale Breasted Paradise Bird, New Guinea.

Ptiloris Alberti, Prince Albert's Paradise Bird, in North Australia.

Ptiloris Paradisea, the Rifle Bird, in East Australia.

Ptiloris Victoriæ, the Victoria Rifle Bird, in N. E. Australia,

Astrapia nigra, the Paradise Pie, in New Guinea.

Sericulus aureus, the Paradise Oriole, in New Guinea and Salwatty.—*Indian Field. Mr. Russel Wallace. Mr. Bikmore.*

BIRD PEPPER. Capsicum frutescens.

BIRKEJA, Hind. Galbanum.

BIRJUGAR. One of the 36 Royal races amongst the Rajputs, descendents of Rama through Lava, his second son. Their opponents, the Cuchwaha, also descend from Râma. The family state that they came from Rajore, the capital of Deoti in the Macherri country. They settled in Dor country, then slaughtered the Mewatti and Bheehar and are now dwelling from Rohilcund to Muttra, also in Shamsabad, Furruckabad Eyta of Mynpuri and Gorruckpoor, and a clan, now mahomedans, have settled in Muzaffarnuggar. All the doab clans long since became mahomedans, some in the time of Ala-ud-din, Khilji.—*Elliot.*

BIRHASPATI. The planet Jupiter. See Sani.

BIRHERIA. One of the Chamar tribes.—*Elliott.*

BIRI, Hind. Ærua Javanica.

BIRIJA, Hind. Turpentine of Pinus longifolia.

BIRJEE PASS. One of the passes from Kunawar to the outer Himalayas.

BIRJIA, Hind. One of the Ahir tribes.—*Ell.*

BIR KAIA, Tel. Cucumis acutangula.—*Roxb.*

BIRK, also VIRK, one of the most distinguished of the Jat tribes.

BIRKET-EL-HAGI, or the pilgrim's pool, is four leagues eastward from Cairo. It is a pretty considerable lake, which receives its water from the Nile.—*Niebuhr's Travels, Vol. I. p.* 65.

BIRKOONDA, in L. 77° 20' E. and L. 18° 18' N.

BIRKOOTY, in L. 87° 49' E. and L. 24° 23' N.

BIRM-BAT. See Bhat.

BIRME KI JAR, Duk. Root of Trichosanthes incisa,

BIRMI, Hind. Cratæva nurvala, Ham.—*C. Roxburghii*, also Taxus baccata, the Yew.

BIRMUPEA. A river in Maldah.

BIROHUR, in L. 76° 23′ E. and L. 27° 54′ N.

BIROTA, HIND. Zizyphus nummularia.

BIROZI, HIND. also Ganda biroza, and Sat biroza, Hind. Pinus longifolia,

BIRRE, HIND. Picea Webbiana, Picea pindrow, the silver fir.

BIRRI, HIND. Clematis Nepalensis.

BIRGO, HIND. Nima quassioides.

BIRGUS LATRO. The cocoanut crab, hermit crab, or robber crab, of the Keeling islands, is a kind of intermediate link between the short and long tailed crabs, and bears great resemblance to the paguri. Mr. Davidson observed their habits in the Keeling islands, and found that they live on the cocoanuts that fall from the trees. The story of their climbing these palms and detaching the heavy nuts is merely a story. Its front pair of legs are terminated by very strong and heavy pincers, the last pair by others narrow and weak. To extract the nourishment, it tears off the husk, fibre by fibre, from that end in which the three eyes are situated, and then hammers upon one of them with its heavy claws, until an opening is effected. It then, by its posterior pincers extracts the white albuminous substance. It inhabits deep burrows, where it accumulates surprising quantities of picked fibre of cocoanut husks, on which it rests as on a bed. Its habits are diurnal, but every night it is said to pay a visit to the sea, perhaps to moisten its brancheæ. It is very good to eat, and the great mass of fat accumulated under the tail of the larger ones, sometimes yields, when melted, as much as a quart of limped oil. They are esteemed great delicacies and are fattened for the table —*Bikmore,* 149. . *Mr. Davidson.*

BIRS NIMRUD is seven miles from Babylon. According to Bunsen the bilingual inscription found on the original spot by Rawlinson, on the walls of the temple, among the ruins of Birs Nimrud, teaches us that this building which forms the nucleus of that mound, was the sanctuary of Merdach (Mars) erected by Nabopalassar and Nabukodnossor. The term is Turkish and means the tower or Akron of Nimrod. The Jews style it Nebuchadnezzar's prison. It was considered by Niebuhr, Rich and others to be the ruins of the temple of Belus.—*Bunsen, Vol. IV. p.* 414.

BIRS. The Qamus gives Birs as the name of a town or district between Hillah and Kufah, which is still known; and is conjoined with Babel, in the Chaldaic Sidra Rabba of the Sabæans; under the name of Barsif; whence the Borosippo of Strabo, and other ancient authors, directly proceeds.—*Mignan's Travels pp.* 259 202. *Bunsen, Vol. IV. p.* 414. *Rich's Ruins of Babylon, p.* 34.

BIRT, H. ALSO BRITA AND BURT. A grant of land under stipulations. It also means proprietary right.—*Elliot.*

BIRTHWORT, ENG Aristolochia bracteata. Retz. Roxb. and A. longa, is the long-eared birth wort.

BIRTH, second (or twice born). These are terms frequently met with in works on the hindu people, and indicate that the person to whom it is applied has received the zonnaar or sacrificial cord. It is often used by Sudra hindus to imply conversion of heart. See Hindu. Poita. Zonnaar.

BIRUNI. The takhallus or nom-de plume of Abu Rihan, author of the Tarikh-i-Hind, or history of India, A. D. 1331. See Abu Rihan.

BIRUN-JASIF, PERS. Artemisia vulgaris.—*Linn.*

BIS, HIND. Myricaria Germanica, Salix alba, S. tetrasperma, "Kala bisa," Hind. Hippophae rhamnoides.

BISADÆ or Vesadæ or Besadæ, a race alluded to in the tract of Palladius de moribus Brachmanorum, written about A. D. 400 and the same name is applied by Ptolemy to a similar race inhabiting northern India.

BISAHAR. This range of mountains, an offshoot of the Western Himalaya, extends for almost sixty miles from the lofty cluster of Jumnotri peaks to the Sutlej below Shatul. The Bisahur peaks range in heights from 16,982 to 20,916 feet, the highest being the peaks of Jumnotri. Its passes are from 14,891, to 16,035 feet in height. The great mass of this range is granite. The people speak a Hindi dialect. See Ladak. Thoji-chanmo.

BISAM, GER. Musk.

BISAMGURRY, in L. 84° 42′ E. and L. 19° 23′ N.

BISATI, HIND. A pedlar, from "Bisat," Hind. stock.—*Ell.*

BISAWNETT, in L. 78° 39′ E. and L. 18° 48′ N.

BISAYA. A group of islands in the Eastern Archipelago. Ambergris is frequently gathered in considerable lumps in the vicinity of Samar and the other islands of the Bisaya group, as well as mother of pearl, tortoiseshell, and red and black coral, of the latter kind of which, shafts occur as thick as the finger and six or eight feet long.—*Walton's State, p.* 38-9. See India 318, 358.

BISCAYAN, a remnant, Celtic race or tribe in the south of France who preceded the Serians or Cantabrians in Europe. See India. p. 314.

BISCOITO, PORT. Biscoot, Anglo-Hind. Biscotto, also Galetta, IT. Biscuit.

BISCUITS.

Skibstvebak	DAN.	Biscotto	IT.
Scheepsbeschuit	DUT.	Galetta	,,
Biscuit	FR.	Biscoito	PORT.
Zweibach	GER.	Bort Ssucher	RUS.
Biscoot	HIND.	Bizcocho, Galletta	SP.

Biscuit, from the two Latin words "bis coctus," twice baked, is an unfermented bread, which, if properly prepared, can be kept a great length of time, and hence its use as a common form of bread at sea. The good quality of biscuits depends on the thorough kneading of the dough, and its subsequent division into portions of equal size and thickness. That supplied to the Royal Navy, from England, is now all made by machinery, but for mercantile ships, it is ordinarily made by hand.—*Toml. Faulk.*

BISEAY.—? Polypodium vulgare.

BISEN, H. A powerful tribe of rajputs in Cawnpore and the eastern parts of the N. W. P. the head of whom is the rajah of Salempur Majjhauli.—*Elliot, Wilson.*

BISERA, in L. 84° 55′ E. and L. 27° 28′ N.

BISFAIJ, HIND. Polipodium, species, also Adiantum.

BISH, HIND. Aconitum ferox ; any poison ; Aconitum ferox and other species. Pieces of the roots of the Aconitum ferox, "*bish* ;" *Ati Singeea bish*," or "*bishnak*" of the bazaars, may be used medicinally, but its highly poisonous effects on animal life, require its use to be had recourse to with the greatest precautions. —*Wall.*

BISHA, TAM. Bambusa baccifera.

BISH-BANS, BENG. Beesha . Rheedii, Kunth.

BISHEN GANGA, on its bank is built Badarinath, in L. 30° 46′ N. L. 79° 32′ E.

BISHENPOOR. A town in the Burdwan district of Bengal, in Long. 83° 33′ E. and Lat. 27° 13′ N.

BISHKHAPRA, HIND. Primula speciosa, also, Trianthemum pentandrum.

BISH-KOPRA, HIND. Iguana (Qu. Bish Kobra, or poison-cobra.) Discussions have occurred on the existence of a lizard found in Guzerat, and described as being venomous, "*Ghoor* the *Hindoo Patriot* calls them ; *Tuckhub* and *Tuckoo* in Bengal, the word "tuckoo" being in consonance with the call or song of the reptile. In Baraitch in Oude, it is called *Biskopra.* It is flat, about 1½ inch in breadth, and 15 inches in length, with a head very like a snake's in point of shape ; it possesses fangs and a small dark-greenish bag under the tongue, and in close proximity to the teeth, indicates the poison bag ; it is a venomous looking creature, and possesses to a remarkable degree the pugnacity of the venomous snake when assailed. This seems a popular error ; a venomous lizard is an anomaly unknown in creation.—*Z.*

BISH-KUCHOO, BENG. Arched Arum or Arum fornicatum ; poisonous Calla.

BISHMAN, BENG. Colocasia cucullata.

BISHNAK, NEP. Aconitum ferox.—*Wall.*

BISHNOWI. A hindu sect in Rohilcund and the Doab. The author of the volume Tanbi-ul-jahilin remarks that most of the teachers of the dissenting hindu sects, the Kabir Panthi, Par-nami, Daud panthi, Sadh, Sat nami, Kalal panthi, and Bishnavi, have been mahomedans. The Bishnavi are said to have been founded by Bishno a Tuga brahman, a pupil of a mahomedan fakir.—(*Ell.*) Professor Wilson says the sect is of growing importance in some parts of the N. W. P., combining hindu and mahomedan practices and belief, generally terming themselves sheikhs, but adding the title to a hindu name.

BISHOP OF BABYLON, is the title of the Romish prelate for the Pashalic of Baghdad.

BISHOP'S SEED. Seeds of Anethum sowa.

BISHOP'S WEED SEED, ENG. Fruit of Anethum sowa.—*Roxb.*

Omum	TAM.	Aujown	HIND.
Ajooan	DUCK.	Aymaudum	CAN.
Bishop's weed seed.		Sison Ammi.—*Lin.*	

Bishop's weed seed. Sison Ammi.—*Lin.* These well known carminative seeds yield by distillation a very useful oil which is given medicinally, as a stomachic. The distilled water is used as a carminative in every nursery of Madras under the name of "Omum Water." —*Ainslie's Mat. Med. p.* 269.

BISHULYUKURUNEE, BENG. Menispermum cordifolium.

BISHUNPOOR, in L. 82° 30′ E. and L. 27° 30′ N.

BISHWU-TOOLUSEE, BENG. Parsley stalked Basil. Ocimum sanctum.

BISINDIDI. CHENAB, Gardenia retrosperma.

BISIR, HIND. Pyrus Kumaonensis.

BIS KHOPRA, SANS. DUK. Trianthema decandra. T. pentandra.

BISLOOMBAH,—? Colocynth.

BISLOOMBHEE.—? Cucumis pseudo-colocynthis.

BISHUMPSAG, in L. 79° 32′ E. and L. 30° 31′ N.

BISMUTH, ENG. DUTCH. FR. SP.

Bergstein	DUT.	Bismuthum	LAT.
Wismuth	GER.	Wismut	RUS.
Bismutte	IT.	Piedra inga	SP.

Mr. Piddington found bismuth in one of the ores sent him from the antimony mines near Moulmein ; it is found in connection with silver in Burmah and has been obtained in small quantities in Kashmir from the Jammu territory.—*Mason.*—*Powell, Hand-book Econ. Prod. Punjab, page* 14.

BISRUMGUNJ. A ghat in Bundelcund.

BISMILLAH, means literally, in the name of God, and mahomedans never commence eating without saying it. It is often used by them, also, in commencing a book or used in rising or sitting down and by the pious on every occasion, however unimportant. It answers to the christian grace before meat. It is also used as a sacrificial prayer ; directing the victim's face towards the *Kaabah*, the person cuts its throat, ejaculating, " *Bismillah! Allahu Akbar!*" The camel is sacrificed by thrusting a pointed instrument into the interval between the sternum and the neck. This anomaly may be accounted for by the thickness and hardness of the muscles of the throat. Burckhardt makes the mahomedan say, when slaughtering or sacrificing, " In the name of the most merciful God !" Mr. Lane justly observes that the attribute of mercy is omitted on these occasions.—*Burton's Pilgrimage to Meccah, Vol. III. p.* 303.

BISMILLAH-UR-RAHMAN UR-RAHIM. In the name of the merciful and clement God, a frequent prayer of mahomedans. Zamakshari, in his commentary on the Koran, observes, *Rahman* denotes a more extensive idea than Raheem ; for this reason people say in speaking of God, " the Merciful (Ar Rahman) in this world and the next," and " the clement or compassionate, (Ar Raheem) in this world." The correct pronounciation to a European, are Bismillah irruhman nirruheem, the words are first taught to mahomedan children, at the age of four years, four months and four days, with certain ceremonies.—*Herk.*

BISON. Bibos cavifrons.—*Hodgson.*

Vana-go......	BENG.	Gouri Gai............	HIND.
Kar-kouah...	CAN.	Jungli Khulga......	„
Ban-gau......	BENG.	Peroo-maoo	GOND.
Bison....................	ENG.	Ban-parah...	MUNDLAH.
Gour Bison...	„	Gaoiya...	MAHR.
Gour......	HIND	Katu Yeni	TAM.

This is the Bison of sportsmen in India which inhabits all the large forests. It is not a true bison. It is the Bos Gour of Traill, the B. asseel of Horsfield. Bibos cavifrons Hodgson, and Bibos asseel, Horsfield, are, however, separated by some authors and the term bison is very indiscriminately given to bovine animals to whom it does not pertain. The genus *Bison* comprehends two living species, one of them European, now become very scarce and verging towards extinction ; the other American, and, notwithstanding the advances of man, still multitudinous.—*Engl. Cyc., page* 482. *Cat. Museum, India H.* See Bibos, Bos, Bovidæ, Bubalus, Mammalia.

BISRU, HIND. Cedrela toona, C. serrata.

BISSAHRI-PALA, HIND. Diospyros lotus : The fruit is sweet and pleasant.

BISTAN. See Kandahar.

BISTARUK, BENG. Lettsomia nervosa.

BISULPHURET OF ARSENIC. Realgar ; Mansil, Red-sulphuret of Arsenic. One kind " noushádar kání" from Lahore and Amritsar, might be confounded with sal ammoniac by its name, and lead to injurious results. Kani, means of the mines. See Arsenic.

BISWA. BISWAN, HIND. In the Central Doab, the twentieth part of a bhigah. Each estate or village is considered an integer of one bhigah, which is sub-divided into numerous biswa or biswansi, to show the right of any particular villager. The As of the Romans was similarly used, thus " heres ex semuncia," heir to 1-24th ; " heres ex dodrante," heir to $\frac{3}{4}$ths ; " heres ex asse" sole proprietors.—*Elliott.*

BITARTRATE OF POTASH, ENG. Potassæ bitartras.

BIT OR BITI, TAM. Dalbergia sissoides ; generic and used for all the species of Dalbergia.

BITIKH, ARAB. Musk melon.

BIT-LABAN, HIND.

Sunchul....	GUZ.	Sochul	HIND.
Kala-namak...	HIND.	Bit Noben.........	„

A medicinal salt prepared by melting together for about 6 or 7 hours, in an earthen pot, an impure muriate of soda, called *samur*, and emblic myrobolans (*Hind. Guz.* Aoonla, Anvelcutty), in the proportion of fifty-six ounces of the muriate, to twenty ounces of the dried myrobolans. It is met with in most Indian bazars, and is used by native practitioners as a tonic in dyspepsia and gout, as a stimulynt in chronic rheumatism, &c.—*Faulkner. Ainslie.*

BITLIS, a town near Kufra.

BIT-MIAKI, CAN. Bustard : Otis tarda.

BISHNUVE, the most common brahmin sect in the desert and in Sind. The doctrines of Menu with them go for as much as they are worth in the desert, where " they are a law into themselves." They wear the junnoo, or badge of their tribe, but it here ceases to be a mark of clerical distinction, as no drones are respected ; they cultivate, tend cattle, and barter their superfluous ghee for other necessaries.—*Tod's Rajasthan, Vol. II. p.* from 319 to 321.

BIT NOBEN. See Bit laban.

BITTER ALOES, ENG. Aloes.

BITTER APPELEN, DUT. Colocynth.

BITTER APPLE, ENG. Colocynth.

BITTER CASSAVA, ENG. Janipha manihot, Kth.

BITTER GOURD. Trichosanthes cucumerina.

BITTER HERBS. Exod. xii. and 8 Numb. iv. ii.

Mururim. Heb.

The Jews were ordered to eat the passover with bitter herbs.

BITTERN, Eng. Isaiah xiv. 23, xxxiv. 11, and Zep. xi. 14 has been interpreted to be a bittern, an owl and an otter. The arabic version makes it al-Houbara.

BITTERS. In all parts of the world bitter substances appear to be regarded by people as febrifuges. The beautiful Menyanthes trifoliata and the Tormentil are as popular, in northern regions, as the Chiretta and its various substitutes in tropical countries of the East. Such remedies were in great repute in regular practice before the discovery of quinine. Although, however, they act as tonics and improvers of digestion, and are admirable adjuvants of the true antiperiodics, it is doubtful whether they possess any strictly antiperiodic virtues of themselves. In this respect, they bear very much the same relation to true febrifuges, as salicine does to quinine. Most of them will be found enumerated under their respective heads, and it is only necessary to mention here that, of the *Mucilaginous Bitters*, the chief is the Goluncha, and two others are the Baobab, and Cetraria. *Aromatic Bitters* were formerly in high repute, but have latterly fallen into disuse as febrifuges. India does not appear to be particularly rich in them, and it is a curious fact connected with them that the species of Galipia yielding Angustura bark, is more esteemed by the natives of the Cinchona countries than the true bark. Dr. Hancock gave very strong evidence in its favor. *Bitters containing Alkaloids or Tannin* are a class containing all the most important antiperiodics, and the most valuable of them all is quinine. No Indian tree comes so near the Cinchonas in its botanical affinities as the Hymenodictyon excelsum. As one of its chief habitats is the pestilential jungles of Goomsoor, this would be an exemplification, if its virtues were found to be really considerable, of a favourite notion with some, that along with the bane, nature always supplies the antidote. *Astringent Bitters* and substances containing much tannin, have long been used in Europe as febrifuges.—*Ind. Ann. Med. Sci. for April* 1856, p. 381.

BITTER SEVILLE ORANGE. Citrus vulgaris.

BITTI, Can. Dalbergia latifolia. Dalbergia sissoides.

BITTER ALMONDS, are poisonous to wild beasts:

BITUME DE JUDEE, Fr. Bitumen.

BITUMEN, Eng.

Jodenlym	Dut.	Bitumen Judaicum	Lat.
Asphalte	Eng.	Minak-tanah	Malay.
Petroleum	,,	Nift-i-rumi	Pers.
Bitume de judee	Fr.	Asphalto	Port.
Judenpech	Ger.	Asfalt	Rus.
Asphaltum	Lat.	Asfalto	Sp.

This name is applied to several combustible mineral substances of different consistence and character, such as mineral pitch, earth oil, petroleum, Naphtha Maltha and sea-wax; the properties of which greatly vary with regard to fluidity and colour. At Hit, the Is of Herodotus near Babylon, it is very abundant and ancient geographers suppose that the Babylonians obtained here their bitumen used as cement for fastening their bricks. Arrian says that the temple of Belus was of brick cemented with asphaltus. It is a product of the districts in the North West of Persia where, at the town of Ai, the Momai is produced.—*McCulloch; Skinner, Vol. II. p.* 113. *Mignan, p.* 166. *Faulkner, Eng. Cyc.* See Hit; Momai; Maltha; Naptha; Petroleum.

BITU-MIAKA, Tel. Bustard: Otis tarda.

BITTURNEE. A river near Akooa pudda in Balasore.

BITUMINOUS COAL. See Coal.

BIUM, Tel. Oryza sativa: Rice.

BIXA ORELLANA, *Linn. Roxb. W. & A.*

Var. β. Indica.

Latkan	Beng. Hind.	Kisree	Mahr
Thi-dew	Burm.	Kasumba-kling	Malay.
Thi-den-pan	,,	Kurungu munga	Maleal
Kuppa Manhala	Can.	Kaha-gaha	Singh.
Kisti	Dekh.	Kuragu manjal	Tam.
Anotto, Anatto; Arnotto tree, Rocon	Eng.	Mangi nati maram	,,
Heart-leaved Arnatto	,,	Sapprah maram	,,
Gapurji	Hind.	Jafra Chettu	Tel
Caw purji	Hind.		

There are two varieties of this plant, (*a*) caribœa, with rose colored flowers, cultivated in the west Indies, and β. Indica, with white flowers cultivated in Indra The pulp of its seeds forms the arnotto of commerce used as a dye for cheese and cloths. The dye of the Indian variety is neither so abundant nor so good as that of the west. At the Madras Exhibition of 1855, several specimens of Anatto were exhibited. The plant is cultivated in Singapore, in Mysore and in the Northern parts of India. Dr. Roxburgh remarked that this plant appears to be a native of India, but in the immature plant, the flowers are white and the immature capsule, green; while in the plant from West Indian seed the flowers are rose coloured and the immature seed vessel red: and the Eastern plants do not furnish so much or of so good a color. Dr. McClelland mentions that *Bixa orellana, (Thee-dew)*, or *Arnotto*, is largely cultivated all over Pegu for the red and yellow dyeing properties of its capsule. It is found in all the bazaars, and in those of Bengal under the name of *Lat-kan.* It is a favorite dye with the Burmese, and might become a product of some importance. It is this species of Bixa which is now so largely grown for its dye. The dry hard paste is also found to be the best of all ingredients for imparting a golden tint to cheese and butter. The Spanish Americans mix it with their chocolate, to which it gives a beautiful rich hue. The dye is usually prepared by macerating the pods in boiling water for a week or longer. When they begin to ferment, the seeds ought to be strongly stirred and bruised with wooden pestles to promote the separation of the red skins. This process is repeated several times, till the seeds are left white. The liquor, passed through close cane sieves, pretty thick, of a deep red color, and a very bad smell, is received into coppers. In boiling, it throws up its coloring matter to the surface in the form of scum, which is taken off, saved in large pans, and afterwards boiled down to a due consistence, and then made up, when soft, into balls or cakes of two or three pounds weight. The imports into Great Britain of Arnotto for home consumption are from 200,000 to 300,000 lbs. per annum. The plant is grown in Dacca and other parts of India in the Malay Peninsula and the Eastern Archipelago. At the Hawaiian Islands, Tongataboo, Rio Janeiro, Peru and Zanzibar, the Arnotto is now an indigenous shrub which rises to the height of seven or eight feet, producing oblong heavy pods, somewhat resembling those of a chesnut. Within this there are generally thirty or forty irregularly formed seeds, which are enveloped in a pulp of a bright red color, and a fragrant smell.—*Simmond's Commercial Products, p.* 418. *Roxb. Vol. II. p.* 581. *Voigt. p.* 85 *Dr. McClelland.* See Anatto, Dyes.

BIZUNJI, a Beluch tribe. See Kelat.

BJELKA. Rus. Calabar skins.

BLACHA, Rus. Tin.

BLACK, Ivory black ; Lamp black ; Smoke black.

Nek-Nek	BURM.	Karpa	TEL.
Kala	HIND.	Karpu	TAM.
Kajil	„	Kara	„

The subtances which are commonly so named, are Ivory black, lamp-black and smoke black. Smoke black is prepared by the combustion of different resinous bodies, especially of pitch. This substance is burned in large pans under a dome or chimney, within which cloths are suspended to which the soot becomes attached. It is employed only in the arts, in the manufacture of printer's ink, and of blacking for shoes, &c. Amongst mahomedan women, the Kajil is largely used for painting the eye-lashes. The Indian ink or China-ink is made from lamp black.—*O'Shaughnessy, page* 618.

BLACK, Sw. Ink.

BLACK AMBER, See Jet.

BLACK BRYONY. See Dioscoreaceæ.

BLACKBURNIA MONODELPHA.—*Roxb.* A large erect timber tree, a native of the mountainous parts of the Northern Circars. The wood is white, close-grained, and durable, and employed by the natives for a variety of purposes. It flowers at the beginning of the hot season.—*Roxb Fl. Ind. Vol. I. p.* 415.

BLACKBURNIA PIRMATA. A hard yellow wood of Norfolk Island, much used for making household furniture.—*Keppel's Ind. Arch. Vol. II. p.* 282.

BLACK DAMMAR TREE. ENG. Canarium strictum.—*Roxb.*

BLACK DERBOUN of the mountains of Arabia and South of Syria, is supposed to be the wolf, Canis aureus. See Canis.

BLACK-DYE PLANTS. See Diospyros mollis, also Dyes.

BLACK-DYE, for hair, a solution of Hypo-sulphate of Soda.

BLACK EBONY WOOD. Diospyros, species. See Diospyros, Ebony, Furniture.

BLACK GRAM. Dolichos uniflorus.

BLACK HELLEBORE. Helleborus niger.

BLACK HOLE of Calcutta, was the southern end of the barrack of the old fort. By order of nabob Suraj-ud Dowlah, in June 1756, 146 Englishmen were thrust into the room, in the southern end of the old fort, 18 feet high, 18 wide and 14 deep, and before morning, 123 of them had perished. The black hole was at the corner of tank square, close to the place where, in 1834, was Lyell, Mackintosh & Co.'s Office.

BLACK HORSE SHOE BAT of Singapore is the Rhinolophus morio. See Cheiroptera.

BLACKING.

Noir (de cordonnier)	FR.	Nero-da ugner-le-scarpe	IT.
Schuschwarze	GER.	Negro-de zapatos	SP.
Wiehse	„		

This is used in the blacking of leather articles. The principal ingredients are oil, vinegar, ivory, galls, copperas, black, or some other sort of blacking matter.—*Tomlinson.*

BLACK LEAD, ENG.

Potlut or Potloot	DUT.	Miniera di piombo	IT.
Graphite	ENG.	Piombaggine	„
Plumbago	LAT.	Corezolo	„
Mine-de-plomb noir.	FR.	Piedra mineral de plomo	SP.
Plomb-de-mine	„	Karri Jăm	TAM.
Pote-lot	„	Nalla Sisam	TEL.
Pottloth	GR.		
Reissbley	„		

This mineral is of a dark steel-grey colour, and a metallic lustre ; it is soft, has a greasy feel, and leaves a dark coloured line when drawn along paper. It is a carburet of iron and when pure, sells at 30 shillings the pound, is used in the manufacture of pencils, for making crucibles, in compositions for protecting iron from rusting, and for diminishing friction in machinery. The best plumbago was that procured near Borrowdale in Cumberland. It has also been largely worked in America. Ceylon largely produces it, also Travancore and Vizianagram. It occurs in veins, and in kidney shaped lumps, in gneiss, mica slate, and their subordinate rocks, but that at Borrowdale occurs in transition slate.—*Faulk. Toml. Statistics of Commerce.* See Carburet of Iron ; Graphite ; Plumbago ; Carbon.

BLACK LEAD PENCILS.

Potlootpennen...	...DUT.	Lapis-negro...	......PORT.
Pencils..........	...ENG.	Kara-naschii.. ...	...RUS.
Crayons-noirs... ...	FR.	Lapis-negro	SP.
Bleystifte........	...GER.	Karri lam pencil...	TAM.
Surmé-ke kalm...	HIND.	Nalla Sisa pencil ...	TEL.
Lapis-nero..............	IT.		

These are formed of black-lead, laid in cedar and other woods. They are imported into India from Britain.—*Faulkner, McCulloch.*

BLACK PEPPER VINE, ENG. Piper nigrum.—*Linn.* See Pepper.

BLACK RACE. The Kara-chi or Karatchi.

BLACK SEA. A sea on the N. Western side of Asia, forming, in part, the boundary between Asia and Europe. See Kalmuck ; Tigris.

BLACK SESAMUM SEEDS. Kala til ; white Sesamum seeds, Suffed til, HIND. Sesamum orientale.

BLACK MACAQUE of Japan and Philippines, Macacus Niger. See Simiadæ. Mammalia.

BLACK MISSI. Anglo-Hind. See Hirakassees.

BLACK MOUNTAIN, the Mahabun. See Punjab.

BLACK PAGODA, a name of Kanarak. See Orissa.

BLACK PEPPER, ENG.

Filfil aswad...........	AR.	Piper-nigrum... ...	LAT.
Micha........	BALI.	Lada......	...MALAY.
Hut-seaou	...CIHN.	Lada-itam.........	„
Gammiris...........	SING.	Sahan...	...PALEMBANG.
Peper...... ...	......DUT.	Filfil-i-Siah... ..	...PERS.
Poivre..	......FR.	Pimenta...	...PORT.
Schwarzen pfeffer.	GER.	Măricha.	SANS.JAV.MAL.
Kala-mir'ch... ...	HIND.	Pimienta.........	......SP.
Gol-mirch......	„	Karri Mollagu...	...TAM.
Pepenero.................	IT.	Nalla Mirialu.........	TEL.

This small, pungent, aromatic fruit, is the product of the Piper nigrum grown in Malabar, Malacca, Siam and on the islands of the Archipelago. See Pepper.

BLACKSMITH.

Lohar..............	...HIND.

The blacksmiths of India are of the idol worshipping race. They are one of the five artizans who wear the zonar or poitu or sacred string, the other four being the gold-smith, stone-cutter, carpenter and brass-smith. See Hindoo, Kammaler, Polyandry.

BLACK SOIL, or Black cotton soil or cotton soil, of southern India is met with in great tracts of country. It is remarkable for permanence of fertility, yielding crops without manure for a thousand years. It is supposed to be decomposed trap, but others regard it as a true alluvium, deposited from still water. It is called Regur in Hindi.

BLACK TOWN, the northern district of Madras. It has all the mercantile community.

BLACK STONE, the Hajar-ul-aswad of the mahomedans, now lying at Mecca, is fabled to have fallen from paradise, with Adam. It is kissed by each pilgrim. See Hajar.

BLACK VEGETABLE DYE. See Dyes.

BLACKWELLIA. A genus of plants of the order Homaliaceæ, of which B. spiralis : ceylanica, fœtida, propinque, Cochinchinensis, paniculata, Nepalensis, tomentosa and padiflora occur in India.—*Voigt.* 64.

BLACKWELLIA CEYLANICA. *Gardner.*

B. tetandra, W. I. t. 1851.	Leeyang-gass... SINGH.

This grows in the moister parts of Ceylon up to an elevation of 3,000 feet. It attains a height of 30 to 40 feet.—*Thw. Enum. Pl. Zeyl. Vol: I. p.* 79.

BLACKWELLIA TOMENTOSA, *Vent.*

Myouk kyau.	BURM.

Wood tough, of a light yellow colour, produce of British Burmah ; used for the teeth of harrows. A cubic foot weighs lbs. 56. In a full grown tree on good soil the average length of the trunk to the first branch is 70 feet, and average girth measured at 6 feet from the ground is 6 feet. It sells at 12 annas per cubic foot. —*Dr. Brandis.*

BLACKWOOD, ENG.

Biti......	CAN.	Sit Sal..........	...HIND.
Indian Blackwood...	ENG.	Eru pottu...	..TAM.
Rosewood...............	„	Biti-maram......	„
Sisam............	......GUZ.	Irugudu chettu......	TEL.
Sisam......	...HIND.		

This is a commercial term for several dark coloured timbers. Every locality has a wood which is known by this name. The timber known in Britain as East Indian Blackwood is from the Dalbergia latifolia, called Blackwood tree by the English and Sit Sal by the natives of the Malabar Coast, where it grows to an immense size. The wood of the trunk and large branches is extensively used for making furniture; it is heavy, sinking in water, close-grained, of a greenish black colour, with lighter coloured veins running in various directions, and takes a fine polish.—The wood called, in Bombay, Seesum, however is probably the timber of two different species of *Dalbergia*, which grow in various parts of India. Bombay Blackwood is brought to Bombay from the Malabar Coast, and is largely used in the manufacture of household furniture. Dr. Cleghorn, in his reports, recognises under this name only the Dalbergia latifolia and it, with the D. sissoides, are likely the only trees from which the Bombay Black wood is obtained.—*Dr. Cleghorn, Dr. McClelland, Mr. Faulkner, Holtzappfel.* See Blackwood Furniture; Furniture, Rose-wood.

BLACKWOOD OR ROSEWOOD FURNITURE.—In the Bombay furniture manufacture, blackwood is the material almost always employed—it is brought from Cochin and other places lower down on the Malabar Coast. It sells for about the same price as teak—it is a brittle, opened-grained wood, not at all a favourite with cabinet-makers at home, where the highest prices ever realised for it in the state of log were about £10 per ton. The principal furniture dealers in Bombay, are Parsees, mostly from Guzerat. The pattern meant to be carved is first carefully drawn on paper—then on the wood. The tools used are the native adze, chisel, and drill—the centre-bit and other tools of English pattern, from which so much assistance might be obtained, are never resorted to. The general design of the various pieces of furniture is mostly excellent, the patterns elegant and tasteful: the finish for the most part is poor,—the joinery always execrable. Concealed joints never seem to be thought of—pins which might be kept out of view are made as conspicuous as possible, and great clumsy screw nails, which might, without trouble, be hid, are fully exposed to view. Considerable quantities of blackwood furniture are sent to England annually by residents in Bombay for their own after use, or for the service of friends: it is packed up without being jointed or polished, and is put together by English workmen, who it is believed, think but lightly of its merits. There were, in 1850, six principal furniture shops in Bombay. They keep from five to ten workmen each, and probably turned out Rs. 25,000 to Rs. 30,000 worth of furniture amongst them annually. The following were the prices of the principal articles manufactured:—

	Rs.
Round Table, from 3 to 8 feet in diameter	30 to 80
Round Teapoys, 2 feet ditto, per pair	16 to 25
Card Table do	50 to 60
Flower Stands do	50 to 100
Pier Tables do	100 to 150
Conversation Sofas do	100 to 150
Sofa Couches do	140 to 200
Music Book Cases do	30 to 140
Easy Chairs each	10 to 50
Low Chairs each	25 to 50
Drawing Room Chairs, with damask cushions	5 to 10
Dressing Tables,	8 to 75
Side Boards, each	35 to 70
Screens, each	20 to 75
Wardrobes, each	45 to 75
Clothes, Presses,	25 to 46
Bedsteads, each	50 to 200
Writing Tables, each	50 to 100
Bed Room Couches, per pair	40 to 60
Chiffoniers, each	60 to 80
Sofa Tables, per pair	60 to 90
Dining Table, in pieces	40 to 50
Chests of Drawers, each	25 to 50
Music Stands, per pair	30 to 50

See Arts and Manufactures; Beati Maram; Dalbergia latifolia; D. sissoides. Forests of India. Furniture.

BLADDER SENNA. Colutea.

BLAINVILLEA LATIFOLIA, *D. C.*

Verbesinia lavenia, *Rox.* iii. 442.

A plant of Dindigul, Malabar and Monghyr. with a faint pleasant aromatic smell.—*Voigt.* 411.

BLAIR. Lieutenant Archibald Blair, R. N. in 1789 and 1790 made a circuit of the entire Andaman archipelago, and embodied the result of his researches in general charts, plans, and a report containing useful information for mariners. The islands are indented by numerous bays and inlets. Some places may be distinguished afar off by white cliffs, which rise abruptly from the sea.

BLAKANG MATI. A barren island, near Singapore, about 2½ miles long, and 308 feet in height.

BLANAH. MALAY. In Burma, a well-known palatable fish.

BLANC DE BALEINE. FR. Spermaceti.

BLANCHARD, Sidney Laman, for sometime editor of the *Mofussilite;* son of the celebrated literature, Laman Blanchard.

BLANCO, Cape, on the Coast of Palestine, near Cæsarea.

BLANKET.

Kambli...GUZ. HIND. TAM.	Kămăl...........MALAY
Kaml chadr.......... „	Jamkhana ....TEL.

A soft loosely woven woollen stuff, used as a bed covering by night and cloak by day. Most of the blankets manufactured in India, are of a coarse description, and are only used by the poorer natives. English blankets being in general request, are largely imported. At the Madras Exhibition of 1851, blankets were shown, manufactured at Hoonsoor in Mysore, from half bred merino wool, half bred but wool, warp woof mundium wool, common country wool and mundium wool.

The white blankets made at Rampur in the Western Himalaya and known as the Rampur chadr are sold at £3 and upwards. The cumblies, made in the Ceded Districts are of a superior texture.

BLAR, Hind. in Multan, an old mound yielding saltpetre earth.

BLASSES-ROSE. Ger. See Rose.

BLATTA ORIENTALIS, Cockroach. This insect is very troublesome in many houses and in ships; lodging in cup boards, presses, and amongst books, and soiling by their exuvia whatever they approach.

BLATTI. Maleal. Sonneratia acida.—*Linn.*

BLAUHOLZ. Ger. Logwood.

BLEACHING.

Nikharna.........	Hind.	Salavy punnookiradoo.	Tam.
Khumbi karna	„	Nana padam.........	Tel.

In India, the substances present in goods which oppose the bleaching process are first removed by scouring in an alkaline lye; afterwards, natives usually have recourse to dunging the cloths which are to be bleached and steaming them over the mouth of an earthern pot set in a clay fire place, but little science enters into the process and generally the goods suffer much from the water in which they are scoured being over charged with lime. Mr. Rohde tells us that bleached cloth, particularly in tents, is far less durable than that which has merely had the dressing and filth thoroughly removed by washing, this is easily explained as cotton goods have a certain resinous substance in them that obstructs the absorption of moisture. Besides the removal of this, cloth sustains much damage from the abuse of the caustic lye bath; cloths should be scoured more than once at intervals during the process of bleaching, as many of the substances cannot be removed but after exposure to the light and air.

Wool also is protected by a peculiar varnish exceeding three per cent. of its weight, which must be removed by scouring, *warm* hot boiling water must be employed. Wool is further bleached by sulphuring either in close chambers in which sulphur is burnt, or by the sulphuric bath; in either case, it acquires a brittleness which must be removed by washing in soap and water.—*(Rohde M. S. S.)*

According to Dr. Royle some places which are also seats of the cotton manufacture, such as Dacca and Baroche, are famous for their bleaching, this has been ascribed to the excellency of the water in the neighbourhood of these places. At Dacca, fine muslins are merely steeped in water, other cloths are first washed. But all, of whatever texture they may be, are next immersed for some hours in an alkaline lye composed of soap. and of "sajæ mattee," that is, impure carbonate of soda. They are then spread over the grass, and occasionally sprinkled with water, and when half dried are removed to the boiling-house in order to be steamed. This is effected by twisting the cloths into the form of loose bundles and placing them upon a broad clay platform, which is on a level with, and surrounds, the neck of a boiler, sunk into the ground. They are then arranged in circular layers, one above the other, around a bamboo tube, which is kept upright by means of transverse supporters projecting from it, the whole forming a conical pile that rises to a height of five or six feet above the boiler. The fire is kindled in the excavation below, and as the ebullition of the water proceeds, the steam diffuses itself through the mass of the cloths above, swelling by its high temperature the threads of the latter. The operation of steaming is commenced in the evening, and continued all night till the following morning. The cloths are then removed from the boiler, steeped in alkaline lye, and spread on the grass as on the preceding day, and again steamed at night. These alternate processes of *bucking* and *crofting*, as they are technically called, during the day, and of steaming at night, are repeated for ten or twelve days, until the cloths are perfectly bleached. After the last steaming, they are steeped in clear filtered water acidulated with lime-juice, in the proportion, generally, of one large lime to each piece of cloth. Lime-juice has long been used in bleaching in all parts of India, and Tavernier describes Baroche as famous as a bleaching station, on account of its extensive meadows and the large quantity of lemons reared there. Mixed fabrics of cotton and Muga silk are steeped in water mixed with lime-juice and coarse sugar, which latter article is said to have the effect of brightening the natural colour of the silk.—*Royle, Arts, &c. of India, page* 481, *Rohde M. S. S.*

BLENDJU. In Java, is a substance, prepared as a paste, fried with oil, and eaten with coffee.

BLEPOTE. See Cheiroptera.

BLERONG or BALERANG, Malay. Sulphur.

BLETIA HYACINTHIANA, R. Br. One of the Orchiaceæ, of China and Japan, with bright purple flowers.—*Voigt.* 625.

BLEU DE PRUSSE, Fr. Prussian Blue.

BLEU D'OUTREMER, Fr. Ultramarine.

BLEY, also BLEI, Ger. Lead.

BLEYSTIFTE, Ger. Blacklead Pencils.

BLACK AGALLOCHA, Eng. Aquilaria agallocha.—*Roxb.*

BLIGHIA SAPIDA.—*Kön.*

Cupania sapida,...	Camb.	Akee Tree...........	Eng.

The Akee tree, one of the Sapindaceæ, has been introduced from Guinea into India. It rises 30 to 40 feet. The fruit has the size and shape of a pear, of a red colour, and is much esteemed in Guinea and the West Indies. Wood said to be very hard and durable, but said also to be light and worthless. The genus was named after Captain William Bligh, R. N., Master of the Bounty in the celebrated mutiny.

BLECH ; GER. Tin.

BLED DE TURQUIE. FR. Maize.

BLEDS GRAINS, FR. Corn.

BLEI-GLANZ, GER. Galena.

BLEI-OXYD, GER. Lead.

BLEI-WEISS, GER. White lead.

BLENDE, Native Sulphuret of Zinc,.—

BLIMBI, MALAY. Averrhoa bilimbi. The fruit of the plant known as the tree cucumber, has various terminations, Blimbing basi, Blimbing bulu, Blimbing teres, perhaps varieties.

BLIMBING-MANIS, MALAY. Averrhoa carambola.—*Linn.*

BLISTERING BEETLES OF INDIA, consist of several species of Mylabris. About 180 lbs. forwarded by Dr. Birdwood, to test the market value in England, were sold there at 5*s* 8*d.* per lb.—Several kinds of beetles when applied to the skin, cause great irritation, inflammation, and blistering. These consequences are occasioned by an acid principle called Cantharidin, contained in these insects. The ancients chiefly employed two species of Mylabris, one of which, the Mylabris chichorii, (vern. telini, HIND.) has been used for ages, and is so at present by the European and native physicians of India and China. The Cantharis vesicatoria, or Spanish blistering fly, is the species officinal in the British Pharmacopœiæ. Its colour is bright shining green or bluish, length about ¾ of an inch, breadth ¼th to ⅓rd of an inch. It occurs in the South of Europe generally, especially in Italy and Spain, and is found occasionally in England. The blistering flies of India are chiefly the Mylabris or Meloe chichorii the Cantharis gigas, and the Cantharis violacea The Meloe, or Mylabris chichorii (Telini, HIND) is common in the neighbourhood of Dacca, in the Hyderabad country, in Kurnool, and numerous other localities. The insect is about an inch long, and ⅓rd broad ; the elytra or wing coverts are marked with six cross stripes of deep blue and russet brown. The Buprestis of ancient writers is met with in the bazaars under the name of the golden fly (sonamuk-ki) The Cantharis violacea is often mixed with specimens of Meloe in the bazars. The Telini fly, if procured before the mites have commenced its destruction, yields on an average one-third more of cantharidin than the Spanish fly of the European shops. The blue fly is of uncertain strength ; the Buprestis, in all the specimens obtained, was quite inert.—A species of Meloe called the M. trianthema, from its being usually found on the plant named Trianthema decandra (biscopra, *Hind*) is described by Dr. Fleming. A tincture, acetous plaster, and ointment of the Meloe cichorii are given in the Bengal Pharmacopœia. Some prejudice exists against the article on account of its alleged excessive severity of action. This is solely owing to the presence of a greater quantity of cantharidin than that contained in the common fly. Diluting the tincture, and adding to the proportion of lard and wax in the plaster and ointment, perfectly assimilate the action of the indigenous and the imported insects. At the Madras Exhibition of 1855, specimens of Mylabris pustulata, and M. punctum were exhibited by M. Collas of Pondicherry. Both insects are found in large quantities at certain seasons all over Southern India.—*O'Shaughnessy, page* 684, quoting *Dr. Hunter, M.D. in the Transactions of the Asiatic Society, 5th Vol. p.* 216. *Madras Exhibition.* See Spanish Flies. Cantharides.

BLISTERING PLUMBAGO. See Lal Chitra. Chitra, Plumbago.

BLOCK, a mechanical implement, of iron or wood enclosing a pulley or sheave revolving on a pin. There are many kinds and all largely used in sailing ships.

BLOCK TIN or pure tin in slabs is exported from Batavia and Singapore.—*Statistics of Commerce.*

BLOOD, ENG.

Thak	BHOTIA.	Wi	MRU.
Thwe'	BURM.	Khun	PERS.
Sangue	FR	Thé	SAK.
L'hu	HIND.	Rakta	SANSC.
A-ti	KAMI.	Nethar	TAM.
Ka-thi	KHYENG.	Niriti	,,
Vi	LEPCHA.	Rattamu	TEL.
Thyak	LHOPA.	Rattam	,,

Blood for blood, the Vendetta of the Italians, is the law of most rude populations, but the settled races occupying the South and East of Asia, are dwelling under civil laws administered by officers of justice.

BLOOD-ROOTS. See Hæmodoraceæ.

BLOOD-SPOTTED CRAB. See Cancer.

BLOOD STONE. ENG.

Heliotrope	ENG.	Radawar	GUZ. HIND
Pierre Sanguine a Crayon	FR.	Sanguigna	IT.
Blutstein	GER.	Hæmatites	LAT.
		Piedra Sanguinaria	SP.

Blood-stone also called Heliotrope, and sometimes Oriental Jasper, is one of the quartzose minerals. It is of a deep leek green colour and has red spots scattered through it, caused by iron. Immense masses of it are obtained in the trap formation of the Dekhan. but it is brought to Bombay from different parts of the Guzerat, &c., and is re-exported largely to England. It is used for seals, rings and brooches. Its price has lately been very greatly reduced.—*Madras Museum Records.* See Heliotrope.

BLOOD SUCKER. A name applied to the reptiles Calotes viridis, Gray, C. opiomachus and C. versicolor, also to Sitana ponticheriana, Cuv. They are all unsightly creatures, with large heads and powerful jaws, so that even the bravest crow attacks them carefully. There are 11 species of Calotes and 2 of Sitana in India. Mahomedans dislike the blood-sucker, as the creature often raises and lowers its head, in the manner of those religionists when at prayer.—See Calotes; Reptiles; Sitana.

BLOOD WOOD OF PORT JACKSON. See Eucalyptus.

BLOW-PIPE, is in constant use in India, in the arts amongst goldsmiths, tinsmiths, bangle-makers and others. The cook room, of every house, also, has a bamboo blow-pipe. The Malay races also use the blow pipe, the Sumpitan, for projecting peas, small pellets and arrows. The accuracy of fire, with these is great; little birds can easily be destroyed, but even large birds like the crow can be brought down by the earthern pellet from a blow-pipe. See Sumpitan.

BLUBBER. Eng.

Thraan	Dut.	Salo worwannœ	Rus.
Thran	Ger.	Worwan	„
Fischtran	„	Grassa	Sp.
Olio-di-pesce	It.	Aceite-de-pescado	„
Oleum piscinum	Lat.		

Blubber is the thick fat or adeps of the whale, or the porpoise. At the present day in Europe, it is boiled down into train oil, but the whale was eaten by the Saxons, and when men were lucky enough to get it, it appeared at table till late in the fifteenth century. In 1246 Henry III. directed the sheriffs of London to purchase one hundred pieces of whale for his table. Whales found on the British coast were the perquisites of royalty; they were cut up and sent to the king's kitchen in carts. Edward II. gave a reward of twenty shillings to three mariners who had caught a whale near London bridge. Those found on the bank of the Thames were claimed by the Lord Mayor, and added to the luxury of the civic feast. Pieces of whale were often purchased in the thirteenth century for the table of the Countess of Leicester. England was supplied with this choice dainty by the fishermen of Normandy, who made it an important article of commerce. The Normans had various ways of ooking it: sometimes it was roasted, and rought to table on the spit, but the usual way ras to boil it and serve it up with peas; epiures looked out for a slice from the tongue or he tail. The grampus, or sea-wolf, was also ighly esteemed; but of all the blubber dainties the porpoise was deemed the most savoury. The Saxons called it sea-swine, and the ecclesiastics of the middle ages, *porcq marino.* Porpoises were purchased for the table of Henry III. in 1246: and Bishop Swinfield, in the same century, dined off it whenever he had an opportunity: it was served up at a sumptuous entertainment given to Richard II. at Durham-house, and at the grand installation of Archbishop Neville in 1466; four porpoises were on the table. In 1491 the bailiffs of Yarmouth sent a fine porpoise as a present to Lord Oxford, whose favour they were anxious to propitiate, and accompanied it with the message, that if they had any other "deyntes to do him a pleasir," they would have sent them also. The worthy bailiffs could find no more savoury present in all the fish-markets of Yarmouth. At the marriage of Henry V., the guests were treated with a "rosted perpis," a dish fashionable in the fifteenth century. We find it again in the first course at the coronation of Henry VII. The king was probably fond of this dish, for it was served up at his table on the feast-day of St. George, and my Lord cardinal courted his majesty's favour by sending a fine porpoise to the palace. The cooks not only roasted and boiled it, but made it into pies and pasties; and a learned "Maister Coke" gives a receipt for a delicious "pudding of purpasse," whilst another tells us how to serve it up in fermenty; the wheat is to be seethed in milk, in which finely chopped almonds had been boiled to thicken it; the purpoise was to be dished up smothered in this delicate sauce, which was also coloured with saffron. A poet in 1452 gives directions how to carve "salt porpyesse and seele." In the "Boke of Kervyng" mustard is recommended as the best sauce for porpoise, which was to be carved after the manner of venison; and the proper term to employ in asking the carver to help the guests was to bid him "undertraunche that purpos." This coarse animal was esteemed as food until late in the sixteenth century; it was often on the table of Henry VIII; and Wolsey, Somerset, and other lords of the Star Chamber, having in 1509 a snug little official dinner together, feasted sumptuously of a porpoise, which cost eight shillings. Even Queen Elizabeth, who was rather choice in her appetite, had porpoise among her Friday diet; and it was sold as food in the market of Newcastle as late as the year 1575, from which time it appears to have fallen into disrepute.—*Our English Home: Its Early History and Progress. McCulloch's Commercial Dictionary*, p. 134.

BLUE. Eng.

Pya-bya.	Burm.	Nila	Hind.

BLUE CLOTH, is largly made in Southern India, and at Pondicherry there is a manufacture of much interest.

BLUE DYE. See Marsdenia tinctoria.

BLUE DYEING ROSEBAY. Nerium tinctorium.

BLUE GALLS. See Galls.

BLUE-GREEN PARADISE BIRD: Chalybæus paradisæus.

BLUE GUM OF PORT JACKSON. Eucalyptus, *Sp.*

BLUE LAKE, See Koko-nor.

BLUE MORIES. See Mories.

BLUE NIM TREE, ENG. Azadirachta Indica, *Ad. Jus. W. and A.*

BLUE STONE. ENG.

Zungbar...... ....AR.	Nila-tutiah ....HIND.
Sulphate of Copper ENG.	Vitriuolo blo... .. ..IT.
Copperas...... ... „	Cupri-Sulphas,......LAT.
Blue Vitriol ... ... „	Cuprum vitriolatum „
Cyprian Vitriol... „	Vitroleum ceruleum „
Roman Vitriol ... „	Tutthanjana ......SANS.
Sulphate de Cuivre. FR.	Palmanicum ......SINJH.
SchwefelsaureskupferGR	Caparosa .. .. SP.
Mortuth......GUZ. HIND.	Turishu...............TAM.
Lila-tuta................ „	Turishi ....TEL.

This mineral salt is not known to occur in nature, but it is largely made in several parts of India, by boiling sheet copper or copper filings in sulphuric acid and evaporating the remainder, on which crystals form. It is also obtained from copper ore, by pulverising the ore which is then thrown into earthen vessels filled with water and after filtration the crystals form. The colour is a beautiful blue. It is largely used in surgery and in the arts.—*McCulloch.*

BLUFF HEAD. See Camsing moon.

BLUME, C. S., author of the Flora Java, and Bijdragen tot-ded Flora van Nederlandsche Indie.

BLUMEA BALSAMIFERA.—*DeCand.*

Baccharis salma.—*Lour.*
Conyza odorata.—*Rumph.*
Conyza balsamifera.—*Linn.*

Kai-dai-bi.. COCH.-CHIN:	Bunga-Chappa....MALAY.
Sum-bun ....JAV.	

It grows in the Moluccas, Java, Assam and Malay Peninsula. It is used as medicine and as a seasoning for food and has a stimulo-diaphoretic action. See Conyza balsamifera.

BLUMEA GRANDIS.—*DeCand.*

Conyza grandis.—*Wall.*

Pung-ma-theing. BURM.

One of the most abundant weeds throughout the Tenasserim Provinces, grows six or eight feet high with leaves like mullen, which, when bruised, emit a strong odour of camphor. Many years ago, the Tavoyers informed Dr. Mason that they were in the habit of making an impure camphor from the weed by a very simple process; but Mr. O'Riley of Amherst, was the first to make a good article from it, and to bring it to public notice. He made more than a hundred pounds, and the specimens which he sent to Calcutta were reported "in its refined form, to be identical in all its properties with Chinese camphor." The plant is so abundant, that these Provinces might supply half the world with camphor. Wherever the trees are cut down, this weed springs up, and often to the exclusion of almost every thing else; so that an old clearing looks like a field under cultivation. Mr. O'Riley sent flowering specimens of the plant to Dr. M'Clelland for identification, who forwarded them to Dr. Voigt of Serampore, and subsequently reported, "Dr. Voigt states that it belongs to DeCandolle's genus Blumea, and is, so far as he can see, a new species." It is without doubt the same plant as that which appeared in Wallich's Catalogue a quarter of a century ago, as Conyza grandis, and which De Candolle subsequently described as Blumea grandis.—*Mason.* See Camphor.

BLUMENBACHIA INSIGNIS. Small plants with white flowers, ornamental and may be sown in borders; the stem has the stinging properties of the nettle.—*Riddell.*

BLUNJI PAT, BENG. Corchorus olitorius.—*Linn.*

BLUTIGEL. GER. Leeches.

BLYTH, EDWARD, for many years Curator of the Museum of the Bengal Asiatic Society; the ablest zoologist who has ever resided in India: author of numerous learned articles on the mammals, birds, fishes and reptiles of Eastern and Southern Asia. Mostly in the Bl. As. Trans, Vols. XIV.; XV. I. 280:—Fauna Indiæ, Drafts for, Ibid, 345.—On three Indian species of bat, Ibid, 1841, Vol. X. 971—New species of pica from the Himalayas, Ibid, 186.—Description of caprolagus, a new genus of leporine mammalia. Ibid. 247.—Supplement to the monograph of the Indian and Malayan species of cuculidæ, or birds of the cuckoo family. Ibid, Vol. XI. 898, 1095, et seq.; 1843, vol. XII. 240.—Notes on various Indian and Malayan birds. Ibid, 1842, Vol. XI. 160.—On the Predatory and sanguivorous habits of the bat of the genus megaderma, with some remarks on the blood-sucking propensities of other vespertilionidæ, Ibid.—Monograph of a species of lynx,—Ibid,—but described as Tapozous longimanus by General Hardwicke. Descriptive notices of. Ibid, 784.—On the leitrichane bird of the Sub-Himalayas, by H. B. Hodgson, with additions and annotations. A synopsis of the Indian pari, and of the Indian fringillidæ. Ibid, 1844, Vol. XIII. 923.

BLYTHIA RETICULATA, one of the Calamaridæ. See Reptilia.

BNE-EL. in Phœnician cosmogony, sons of of God. Bne-Elophim or Titans, supposed to be the Elim, see Gen. 6. i. iv, Elim, in Phœnicia, was a general name of God.—*Bunsen, IV.* 222.

BOA, or BOE, sometimes called Poam by the people of Malabar. This wood is much like the timber called in Ceylon Palari, or Palis, and Irambu, or, as known by the English term iron-wood. It is a strong, heavy wood, and is considered durable. It grows from twenty to thirty feet high, and from twelve to thirty inches in diameter.—*Edye. M. and C.*

BOA CONSTRICTOR, Linn. A genus of innocuous serpents of the family Pythonidæ, order Ophidia, Sub-order. innocuus. They are not uncommon in the tropical parts of South Eastern Asia, but some of them are of considerable size and kill large four-footed animals. A female python, 20 feet long was captured in Ceylon when in a torpid state. It was taken to the London Zoological Gardens, and before the end of six years it had grown to 29 feet in length, and was as thick round as a man's thigh. It was very vicious, at. all times, but at length destroyed itself by swallowing a blanket. Those on the western coast of India and in Ceylon are amongst the largest met with. The Boa is often called a Rock snake. See Reptilia.

BOAD, in L. 84° 9′ E. and L. 20° 31′ N.

BOALEE, Beng. The jaw-bone of this fish is used in carding cotton for the Dacca muslins, as a substitute for the heckle and handcards.—*Royle, p.* 225. See Cotton manufactures.

BOAR, WILD. Eng.

Baraha	Beng.	Babi-alas	Malay
Hazir	Heb.	Babi-utan	,,
Jangli Sur	Hind.	Varaha	Sans.
Sur	,,	Walura	Singh.
Dookar	Mahr.	Adavi Koku	Tel.

The boar is the male of the hog or swine. Of these, in Asia, are seven species, wild, viz. Sus scrofa, *Linn, var* S. Indicus; Bengalensis; Andamensis, Malayensis; Zeylanensis; babyrussa and Papuensis. When the wild boar of India, the Sus Indicus, has the run of cultivated lands, it eats daintily. But when stinted for food, it will revel on a dead camel, and in Cutch, when pressed by want, it prowls around the villages in search of refuse.

The wild boar of India is shot and hunted with dogs by natives, but the British sportsmen in India hunt it with the horse and spear; and, undoubtedly, of all the wild creatures in India, the wild boar exacts from its pursuers the greatest care. The Sus Indica of Pallas, the Sus scrofa of other naturalists, the common wild boar, is supposed to be the parent of one of the two groups into which pigs are arranged. The Sus scrofa group or breed is known as the Chinese breed and extends into Europe, N. Africa and Hindustan, but in the latter country, the boar of the N. W. provinces is not higher than 36 inches, though that of Bengal attains 44 inches. The parents of the other group is unknown.

Sus Indica is not known in a wild state, but its domesticated forms come near to S. vittatus of Java. The Roman or Neapolitan pig, the domesticated breeds of China, Cochin-China, Siam, the Andalusians, Hungarian, the swine of S. E. Europe and Turkey, and the Swiss, are all of the Sus Indica group, which, it is said, by a Chinese author, can be traced back for 4,900 years. The Japan masked pig is the Sus pliciceps of Gray, and has a deeply plicated or furrowed skin.

Porcula salvania, the pigmy hog of the Saul forest of N. India is called by the natives "Sano Banel" also "Chota Sur."—*Darwin.*

BOAR AVATAR in hinduism, one of the avatars of Vishnu. This incarnation is called Varaha.

In the mythology of the ancients, the wild boar was sacred to Typhon; in India, the rajputs, on the first day of spring, worship "Vasanthi," or spring, "basanth," personified; prince and vassal, then chase, slay and eat the wild boar. Personal danger is disregarded on that occasion, as want of success is deemed an omen that Oomia, the great mother, may refuse petitions during the year, The boar hunt in spring time, is a scythic custom; amongst the Scandinavian Asi, the grand festival to Freya was in spring, then boars were offered to her by the Scandinavians and boars made of paste were eaten by the people. The rajput festival is called Ahairea, and has a religious origin. The boar is the enemy of Gouri of the rajputs; it was so held of Isis by the Egyptians, of Ceres by the Greeks and of Freya by the north man, whose favourite food was the hog; and of such importance was it deemed by the Franks, that the second chapter of the Salic law is entirely penal with regard to the stealers of swine. The heroes of the Edda, even in Valhalla, feed on the fat of the wild boar Serimner, while "the illustrious father of armies fattens his wolves *Geri* and *Freki*, and takes no other nourishment himself than the uninterrupted quaffing of wine;" quite the picture of Hur, the rajpoot god of war, and of his sons the *Bhyru*, *Gora* and *Kala*, metaphorically called the "sons of slaughter." The cup of the Scandinavian god of war, like that of the Rajputs, is the human skull (*cupra*).--*Tod's Rajasthan, Vol. I. p.* 566. See Avatar; Inscriptions.

BOARD OF CONTROL. In 1784, the government of India was placed under a Board of Control composed of the king of Great Britain's ministers, who, in that capacity, bore the title of Commissioners for the Affairs of India, and this system continued until the year 1858, when British India was taken under the direct control of the Crown. In that interval, however, the Home Government of India, consisted of a Board of 18 members called the Directors of the East India Company, and the President of the Board of Control. The Directors had mostly all the patronage as to appointments, except the higher offices and commands which were made in communication with the ministry, who likewise originated all questions of peace and war, possessed the power of reversing the acts of the East India Company and of the Government of India, and also of sending out instructions on special matters to the Governor General without consulting the Directors.

BOARGAUM two towns in India, one in Long. 77° 0′. E. and Lat. 77° 0′. N. in Long. 77° 22′ E.

BOAT. The difference, as to size, between the boat and the ship, so marked in Europe, is less observable amongst the communities of eastern and southern Asia, and the Kishti of the people of India, the prahu and the kora kora of the Malay, the various kinds of Manche of Pambam, Mangalore and Panyani, and the patamar, range from a few tons to a few hundred tons. In India, the nao and the kishti; in Burmah "thethu" or "the" and "serpa," are all boats that might be described separately. In Britain, even, a boat, may be a large or small vessel, used for traffic and passage, rowing or sailing on seas or rivers, and receiving names according to the construction, form or purpose to which it is applied. The boats made in Britain are known as the

Wherry,
Punt,
Gig,
Pinnace,
Yawl,
Skiff,
Lugger,
Ferry boat,
Jolly boat,
Long boat,
Life boat, and
Canal boat,

and in size may range up to fifteen tons burthen. The sea going vessels are known as sloop, smack, cutter, clipper, schooner, brig, brigantine, barque and ship, and range from fifteen to three thousand tons.

The boats in use along the coasts of the peninsula of India, well illustrate the readiness with which sea-faring people adapt their materials to the requirements of their respective localities, and the rapid sailing boats of Bombay and the vicinity of Cannanore, and the catamaran and masulah boat of the Coromandel coast, are further illustrations of this adaptation.

The boat used for travellers on the Nile, is called a "*Ganja.*"

On the Euphrates and Tigris the "*Kelek*" or leathern raft is in use, and this peculiar mode of navigating that river is the same as was known to the ancients as the "Navigia Conacia." But the Kelek is not the only singular description of vessel, traceable to antiquity, that appears on these rivers of ancient celebrity. The circular bowl shaped basket boat or "*Kufa,*" (so named from the Arabic word, which means basket,) is also used as the common wherry-boat. Its fabric is of close willow-work, well coated and made water proof with the bituminous product of the country; it holds about three or four persons with room enough, though not in the most agreeable positions. It is moved across by paddles. Herodotus notices these different kinds of boats plying on the rivers of Babylon, mentioning them as composed of willows, and the skins of animals; and adds, that on their arrival at the great city, the owners sold all the material of the boats excepting the skins, and those they packed on the backs of asses, and carried whence they came. A raft is made of full grown sheep and goats' skins which are taken off with as few incisions as possible, and then blown up like a bladder and dried. A square framework, formed of popular beams, branches of trees and reeds, is constructed of the size of the intended raft, the inflated skins are tied to it by osier and other twigs, the whole being firmly bound together. The raft is then moved to the water and launched. Care is taken to place the skins with their mouths upward, that, in case any should burst, or require re-filling, they can be easily opened by the raftmen. Upon the framework of wood, are piled bales of goods and property belonging to merchants and travellers. When any person of rank or wealth descends the river in this fashion, small huts are constructed on the raft, by covering a common wooden takht or bedstead of the country, with a hood formed of reeds and lined with felt. In these huts the travellers live and sleep during the journey. The poorer passengers bury themselves, to seek shade or warmth, amongst the bales of goods and other merchandise, and sit patiently, almost in one position, until they reach their destination. They carry with them a small earthen mangal or chafing dish, containing a charcoal fire, which serves to light their pipes, and to cook their coffee and food. The only real danger to be apprehended on the river is from the Arabs: who, when the country is in a disturbed state, invariably attack and pillage the rafts. The raftmen guide their rude vessels by long oars,—straight poles,—at the end of which a few split canes are fastened by a piece of twine. —*Layard Nineveh, Vol. II. page* 97.

A curiously formed vessel, of a crescent-shape, carrying one mast and a large latteen-sail, trades between Bagdad and Bussorah: under a fair wind, it can reach the latter place in six or seven days.

On the Indus, five kinds of boats are used between Attock and the sea. On the Cabul river, and on the Upper Indus, it is still the custom to stuff skins with reeds or straw, as floats. General Ferrier descended the Cabul river from Jelalabad to Attock on a raft so constructed.—*(Ferrier's Journ. page 429.)* The boats best known, however, are the "*Zoruk*" of the upper Indus, the "*dunda*" which plies from Mithancote to the sea, and the "*dugga*" which from its strong build is specially suited to the navigation of the rapids between Attock and Kalabagh. The better kinds of wood used in their construction (sissa and large babul,) are procured with difficulty, and various species of timber are generally seen in one boat, such as sissu, babul, deodar, chir, bahn, and karil. Malabar teak is much prized in the lower Indus and fetches a large price. The ordinary ferry boats are constructed by the sides and bottom being prepared separately and brought together to be secured by knees or crooked pieces nailed to the bottom and sides. The bottom is made of sissu, the knees of mulberry or olive, and the side planks of deodar. The wedges and trenails are usually made of tut and kahu. Ropes for rafts and boats are prepared either from hemp (Cannabis Indica), sirki (saccharmn spontaneum), typha latifolia, "dib" or other reeds, common on the river bank. Munj (saccharum munja), is also largely employed by the native boatmen. The great boat building localities of the Punjab are Pind Dadun Khan, Wazirabad, and Jclum, but there is a marked increase of boat building, on the Indus, not only at Attock, but at Nowshera, Hashtnagar, Mokhud and Kalabagh.—*Postans.*

The following are the woods of which the Punjab Boats, ships, oars, &c. are made,

Acacia speciosa.
Capparis aphylla.
Cedrus deodara
Dalbergia sissoo.
Fraxinus floribunda.
Olea Europæa.
Pinus longifolia.
Populus Euphratica.
Salvadora oleoides.

The boat in common use for transport in Sindh and the lower part of the river is the Dunda or Dundi, it is flat bottomed, with a slight convex inclination, for the additional facility of getting off sand-banks. The Dundi consists of three distinct parts, the two sides and bottom, the latter being adjusted to the others by warping the end up to the slope required, and then strengthened with joints or ribs (as they are termed): the boat thus admits of being dismembered and transported, a fact corroborative of the accuracy of Alexander's historians. On the Sutlej, in the Indus and lower stream. the Zoruk is frequently seen. It differs from the Dundi in having no elevation at the stern, is square built, fore and aft, is of 40 to 50 tons burthen and carries no sail. The Zoruk is the common cargo boat at the upper, as the Dundi belongs to the lower Indus, it sails pretty fast, and sinks with prodigious facility. The Kotal is a broad-beamed boat, used as a ferry boat. The Jumpti, or state barges, used by the Ameers, were strong teak built, double-masted, decked, vessels, propelled by enormous sweeps, and having pavillions at either extremity. The Zoruk, the nawuk, and the dunda are nearly all flat-bottomed, and, though clumsily formed, are strong and safe. The nawuk and dunda are found principally upon the Chenab and the Sutlej; they have pointed bows and sterns.

The natives cross the rivers of the Punjab upon inflated buffalo and sheep-skins, the mouth of which is sewn up, and the legs made air-tight, below the knee and hock-joints, so that the figure of the animal is somewhat preserved, and they are thus easily carried. Burnes says, he has seen upon the Indus, "a man with his wife and children in the middle of the stream, the father on a skin, dragging his family, seated upon reeds, their clothes and chattels forming a bundle for the head." Much art is required to manage these air-bags; Lieutenant Wood nearly lost his life in attempting to bestride a mussak.

On the Ganges, boats are of various descriptions, the Bugerow, the Boleah, the Pansw[illegible], the Palwar, Bhur, Ulak, and Dengi. The bulky Oolâk, or baggage boat of Bengal, is sometimes as large as the Puteli and used for the same purposes. The Pulwar and Bhur are seagoing ships. All the common arts and manufactures of Bengal are carried on at Dacca, but in none of them do the Dacca workmen show more superior skill, than in that of boat building. For their work in this art, they have been celebrated since the reign of Jehangir, when the *Nowarrah* was established here for the protection of the lower districts of Bengal, against the incursions of the Mughs of Arrakan. Dacca, it may be mentioned, has also acquired a local name or reputation for a few minor manufactures, such as those of violins, paper, and shola hats:

The Teesta river in the Terai, at Leelpigoree is navigated by canoes, thirty to forty feet long, some being rudely cut out of a solid log of Sal, while others are built, the planks of which there are but few, being sewed together, or clamped with iron, and the seams caulked with the fibres of the root of the Dhak (*Butea frondosa*) and afterwards smeared with the gluten of *Diospyros embryopteris*. The bed of the river is here three-quarters of a mile across, of which the stream does not occupy one-third; its banks are sand-cliffs, fourteen feet in height. A few small fish and water-snakes swarm in the pools.

Two kinds of vessels, of entirely different structure, are used on the Irawaddy rivers, the larger of which may reach to 120 or 130 tons burthen. These larger boats are termed "Hnau," and are of the form of construction more commonly met with. The keel piece is a single tree hollowed out and stretched by the aid of fire when green, a complete canoe in fact. From this, ribs and planking are carried up. The bow is long with beautiful hollow lines, strongly resembling those of our modern steamers. The stern rises high above the water and below, the run is drawn out fine to an edge. A high bench or platform for the steersman, elaborately carved, is an indispensable appendage. The rudder is a large paddle lashed to the larboard quarter, and having a short pillar passing athwart the steersman's bench. The most peculiar part of the arrangement of these vessels is in the spars and rigging. The mast consists of two spars: it is in fact a pair of sheers, bolted and lashed to two posts rising out of the keel piece. So that it can be let down or unshipped altogether without any difficulty. Nearly the same kind of mast is used by the celebrated Illanon pirates of the Eastern Archipelago. When chased they are thus enabled to run into a creek and drop the mast instantaneously, so that it gives no guidance to their whereabouts. Above the mainyard the two pieces run into one, forming the topmast, wooden rounds run as ratlines from one spar of the mast to the other, forming a ladder for going aloft. The yard is a bamboo or a line of spliced bamboos of enormous length, and being perfectly flexible, suspended from the mast head by numerous guys or halyards, so as to curve upwards in an inverted bow. A rope runs along this from which the huge main sail is suspended, running on rings, like a curtain, both ways from the mast. There is a small topsail of similar arrangement. The sail cloth used is the common light cotton stuff for clothing. Of any heavier material, it would be impossible to carry the enormous spread of sail which distinguishes these boats. The main yard of one vessel was found to be 130 feet long, and the area of its mainsail would not be very much less than 4,000 square feet, or one-eleventh of an acre. From their rig, these boats can of course scarcely sail but before the wind. But in ascending the Irawadi, as on the Ganges during the rainy season, the wind is almost always favourable. A fleet of them speeding before the wind with the sunlight on their bellying sails, has a splendid though fantastic appearance. With their vast spreading wings and almost invisible hulls, they look like a flight of collossal butterflies, skimming the water. The *Pein-go* is another description of Burmese boat, and it is said to be the peculiar craft of the Ning-the or Kyendwen river. Though it traffics to all parts of the Irawadi it is extensively used at Ye-nan-gyoung, for the transport of petroleum. It is flat battomed or nearly so, having no canoe or keel piece like the "*Hnau*," but being entirely composed of planks which extend throughout the length of the vessel, wide in the middle and tapering to stem and stern like the staves of a cask. A wide gallery or sponson of bamboo, doubling the apparent beam of the boat, runs the whole circuit of the gunwale. These boats are generally propelled by oars or a pole, though occasionally carrying sails, but not of the same spread of cloth as the "*Hnau*" *Canoes*, of two different forms are likewise in use on the Iarawady, some of which are ridiculously small in proportion to the number of persons they carry. The prow of a Burmese Boat appears to be regarded by the Burmese boatmen with almost as much superstitious veneration as the quarterdeck of a frigate is by an English post captain.—*Yule's Embassy.*

The boats plying on the river at Rangoon are the *Pingomah*, a large flat bottomed boat bult up of planks fastened together with iron dogs. The buoyancy of the boat is increased by one or two large hollow bamboos, according to size, being lashed with rattans along the water line. When laden with cargo made up into bales, a ledge, about 3 or 4 feet broad, made of bamboos, with a rail, is thrown out the whole length of the sides, for increase of stowage. The cargo is protected by a thatch roof. The steersman sits at the stem on a high chair, elaborately carved, and having a little roof thatch—has a single mast and soil. When not favored by a breeze the boat is propelled by 6 or 8 rowers.

Loung-zayet. A round bottomed boat, with stem and stern high but rounded in or curved in—in other respects like the pingomah.

Loung go. Bottom made up by scooping out a very large log;—the depth of the boat is increased from two to three feet by having, nailed on, planks running from stem to stern. Six to eight feet of the stern end is covered in by a hood of bamboo matting, made water-proof with earth oil or earth air and dammer; here the crew and family live. The large boats of this description have a mast and sail; the smaller ones, when favoured with a breeze put up two bamboos ten or fourteen feet in length, joined at the top and spread out at the bottom and, for a sail, both men and womens' clothes are spread out. The crew are three or four and a steersman, generally the owner of the boat.

Ka-dôlay. A ferry boat, bottom made from a single log, sides planked, the whole length from 1 to 2 feet in breadth, about 5 or 6 feet of the stern end is covered with a rounded hood of thatch and bamboo. The steerman sits at the extreme stern end and steers with a paddle, while the boat is propelled by two rowers.

Sa-dho. A canoe, made up from one log, varying in length from 6 to 15 feet and 2 to 2½ feet in breadth.

Loung. A racing boat, bottom made up of one large long log, from 30 to 40 feet or more in length, with a side planking like the ka-dolay paddled by 25 or 40 men according to size.

Gandoo. This is the largest kind of native trading boat, it is built on a canoe of a single tree of the largest size, chiefly of Peengado, but Teak and Thengan canoes are also used for this purpose : these canoes are from 25 to 30 cubits long and 3 to 4 cubits wide, ribs are fastened inside the canoe and planks are then built on them up to the size required, the largest are 35 to 40 cubits long and 8 cubits deep with a breadth of 15 cubits. Burthen from 40 to 60,000 viss and have a crew from 40 to 50 men. They are built principally in the Henzadah district, they have two masts and are rigged with square sails on the foremast generally two of very large size. They trade to Arracan and Dacca chiefly, the cargo consisting principally of Cutch and Cotton, which they exchange for betel-nut and tobacco, and generally realize large profits.

Katoo, this form of trading boat is an improvement on the foregoing. It is built with a thick plank, from a keel, in the same way as ordinary vessels, and usually with the fore part in imitation of the Chinese junk. The largest kind carry about 20,000 viss and the rig is similar to the junk, two or three fore and aft sails which enable them to beat when the wind is adverse.

Sampan, a Chinese ferry boat shaped much like a spoon with just the handle cut out, leaving its shoulders projecting. The boat is flat bottomed, built of teak planks nailed to ribs set about 18 inches apart, over the ribs are planks loosely fitted on and forming a deck, the boat is propelled by a single Chinaman who stands in the bowl of the spoon with his face to the head of the boat, Sometimes a large square sail is used, when a large square rudder is shipped to guide the boat. A very unsafe boat under sail. It is painted like the junk in the forepart and stern. About two feet of the head of the boat is planked up and serves as a box. Cost of Sampan Rs. 50 to Rs. 60.

Regarding the sea going vessels of southern Asia, Mr. Eyde remarks that among all the numerous vessels of every class and description which traverse the ocean, there is a peculiarity of form and construction intended to meet the various localities of the ports or seas in which they are navigated : and perhaps in no part of the globe is this principle more fully displayed than in the Indian Seas, and on the coasts of the southern Peninsula of India, including the island of Ceylon, where the nature and change of the season, the monsoons, and the navigation of the seas and rivers, are singularly well provided for by the truly ingenious and efficient means adopted by the natives in the formation of their rude, but most useful vessels.

Catamarans of Ceylon and of Eastern and Western Coasts of India.—The Catamarans of the Island of Ceylon like those of Madras, and other parts of coasts of the Peninsula, are formed of three logs of timber, and are used by the natives for similar purposes ; the timber preferred for their construction is of the dup wood, or cherne marum (piney tree). Their length is from twenty to twenty-five feet, and breadth two and a half to three and a half feet secured together by means of three spreaders and cross-lashings, through small holes ; the centre log being much the largest, with a curved surface at the fore-end, which trends and finishes upwards to a point. The sidelogs are similar in form ; but smaller, having their sides straight, and fitted to the centre-log.

The *Catamaran* is generally navigated by two men ; sometimes by one only, but with great skill and dexterity; they think nothing of passing through the surf on the beach at Madras, and at other parts of the coast, where boats of the country could not live on the breakers ; and at sea, they are propelled through the water to ships on the coast, when boats of the best construction and form would swamp. In the monsoons, when a sail can be got on them, a small outrigger is placed at the end of two poles, as a balance, with a bamboo mat and yard, and a mat or cotton cloth sail, all three parts of which are connected ; and when the tack and sheet of the sail are let go, it all falls fore and aft alongside ; and being light, it is easily managed. In carrying a press of sail they are trimmed by the balance lever by going out on the poles, so as to keep the log on the surface of the water, and not impede its velocity, which, in a strong wind, is very great. They are frequently met in with ten or fifteen miles off the southern part of the Island of Ceylon, and will convey any letter or despatch to the shore with safety : but as to its dryness, the man who takes it has nothing but a pocket made from the leaf of the areca-tree (A. catechu, *Linn*), which is tied round his waist, and is the only article about him. These people may be considered almost amphibious, and are the persons who are employed in the pearl fishery. In an account of the Ceylon Pearl Fisheries, by Captain James Stuart, inserted in the Trans. R. A. S., Vol. III. Part 3, the author states, from personal observation, that the longest time which the divers can remain under water is from eighty-four to eighty-seven seconds. They certainly think nothing of going down to a depth of forty feet ; and will bring up a rupee, even, if thrown into the sea at that depth.

Canoes are largely used in India as ferry-boats, and have shapes and forms to suit the rivers and waters. Canoes at Calicut are hewn out of the trunk of the Jack fruit tree; Artocarpus integrifolia. Canoes of Point de Galle and the Malabar coast have weather-boards on an outrigger in the form of a smaller canoe; they are sharp at both ends, and beat to windward without tacking. The Jangar of the Malabar coast, for rivers, is a kind of canoe. The rivers of the Northern Circars are crossed by a double canoe, formed out of two pieces of a cocoanut or a palmyra tree hollowed, and kept apart by cross ties of wood. Canoes scooped out from single trees are in universal use in Burmah, the Malay Peninsula, and the Malay and Eastern Archipelago.

The Point de Galle Canoe, or Market Boat.—is a boat formed from a single stem of dup wood, or piney varnish-tree. They are from eighteen to thirty feet in length; from eighteen inches to two and a half feet in breadth; and from two or three feet deep; exclusive of the wash board, which is about ten inches broad, and sewed to the gunwale by coir-yarns, with loose coir-padding on the joints, in the same manner as the other boats used in India are sewed together, which will be more fully described below. These boats are fitted with a balance log at the end of the bamboo out-rigger having the mast yard and sail secured together; and, when sailing, are managed in a similar way to the Catamarans. Vessels passing the southern part of the Island of Ceylon are generally boarded by these boats even at the distance of twenty to twenty-five miles from shore. They will sail at the rate of ten miles an hour in strong winds, which are generally prevalent there; and, with a crew of five men, will carry a cargo of fruit, fish and vegetable, which are the greatest luxuries to passengers, on making the land after a long voyage from England, Bengal or Bombay. As the outrigger must always be kept to windward, and shifting it from side to side would be impossible, the canoe is so constructed as to proceed with either end foremost. This form of canoe is common wherever the Malays have extended themselves, throughout Polynesia and the coral islands of the Pacific, and to Madagascar and Comoros where a Malay colony settled. They venture 20 miles to sea and sail upwards of 10 miles an hour. The great canoes of Ceylon called "Ballam" or "Vallam" are usually made of the Artocarpus hirsuta, the Angely or Angelica tree.

A model of one of these curious boats is in the Museum of the Royal Asiatic Society, also a model of a boat having two outriggers, with balance logs, used by the natives of some of the islands in the Eastern Archipelago. The natives of New Holland appear to use a similar contrivance, but of a more simple construction, as exhibited in models in the Society's possession. The Rev. Richard Walter, in his account of Lord Anson's Voyage, gives a minute account, illustrated by an engraving of what he terms "a flying proa," used at the Ladrone Islands; which is the same, in most essential particulars, as the vessel described above by Mr. Edye. (Vide Walter's Account of Anson's Voyage round the World, 4to. London, 1748, p. 339.)

Canoe of the Malabar Coast.—From Cape Comorin to Calicut, on the western side of the Peninsula, the coast abounds with fish, which is generally taken with the hook and line by the natives of the fishing villages, in a small canoe; the best description of which is formed from the angeley-wood tree,—Artocarpus hirsuta (?). But the inferior sort is of cherne maram: they are cut out from the solid tree, and are from eight to twenty feet in length, and from one and a half to two feet in breadth; the depth being about one, or one foot and a half. They are managed with much dexterity by the natives, with a scull-paddle. On the backwater of Cochin, and on the river's mouth, they are employed in great numbers in taking the saire fish or country salmon, &c. The largest sort of boats are used for the conveyance of rice and merchandise on the numerous rivers which disembogue themselves into the back-water, to the extent of 150 miles, parallel to the sea-coast. At times these boats are converted into the

Jangar used on the rivers of the Malabar Coast.—It is made into a Double Platform Canoe, by placing a floor of boards across two boats, with a bamboo railing which extends from ten to twelve feet fore and aft, and sixteen feet long; and when these boats are thus formed into rafts, cattle and burthensome articles are conveyed across the rivers; as also the native regiments, with all their followers, horses, bullocks, baggage, bandies (carts), &c. It appears somewhat probable that the idea of the pontoons now in use at Chatham was taken from these vessels, as those constructed by the engineers there perfectly resemble such as are used by the natives in India.

Pamban Manche, or snake Boat of Cochin,—Is a canoe of great length: they are used by opulent natives and Europeans, as boats for the conveyance and despatch of persons on the numerous rivers and back-waters, particularly on that between Cochin, Allepey, and Quilon, which is about eighty miles southward; and on that which runs to Ralipact and Trichoir; the former place being about twenty, the latter about sixty miles to the northward. These boats are from thirty to sixty feet in length, without any regard to breadth or depth, as they are worked from the solid tree. The broadest do not exceed three feet. Those of the Raja and officers of state are very handsomely fitted up, and carved in the most fantastical manner; they are made very neat, and even splendid, with painting, gilding, &c. The largest boats are sculled by about twenty men, double banked; and when pressed, their velocity is surprising, as much as a mile in five minutes. Edye had himself been sculled, in one of them, a distance of forty-eight miles in six hours. These boats are peculiarly adapted to the rivers; for it frequently occurs, that in the dry season there are sand banks perfectly dry, nearly a hundred yards in breadth, over which they must be drawn by the strength of the few men who are in them; the smaller size having only six rowers and a coxwain. Those natives who can afford the expense, have the cabin neatly fitted up, with venetian blinds on the sides, but generally the cuscus, or grass-mat, is substituted. This boat is formed from the angeley-wood, which is very durable, if kept oiled.

Cochin Bandar-manche, or Canoe of Burthen.—These canoes are cut and formed from the largest and softest timber of the forest. They are from twenty to fifty feet in length; their breadth and depth being proportioned to the full size of the tree so as to reduce its dimensions as little as possible. They will carry about eighteen tons burthen, and are made from three to five inches thick at the bottom; but at the top of the side, or gunwale, about one and a half to two inches, with a proportionate increase of thickness at the extreme ends, to protect the end-grain of the wood, and withstand any shock that they may meet with. At the distance of about five feet on the inside there are ribs about six inches broad, projecting about two inches from the side of the boat, for the purpose of giving support and strength to the body of the canoe. These boats may be considered valuable for the service of the port at which they are used; and notwithstanding their heavy appearance, they are very buoyant, and go very fast through the water. In one of about thirty-five feet long, with six men and a tindal (coxwain), Edye passed the Minden's (the Admiral's ship) barge, which had twelve men on board; and in a distance of four miles to that ship's anchorage, he gained on them by time about twenty minutes, although there was a strong sea-breeze and swell against him.

At Cochin, these boats are used for the purpose of conveying various articles of burthen and water to the ships in the roads.

The *Madras Masula Manche*, is used all along the Eastern Coast of the Peninsula. It is formed with a flat bottom, for the purpose of taking the beach in the surf, when European boats cannot approach it. These boats are beached in the third surf; and taken most completely out of the water, on the immediate receding of the swell by natives.

The planks which form these boats are sewed together with coir yarns, crossing the seams over a wadding of coir, which presses on the joints, and prevents leakage. By this peculiar means of security, the vessel is rendered pliable, and yields to the shock which she receives on taking the ground; whilst boats with framed timbers and planks, nailed or trenail-fastened, would be broken to pieces from the heavy surf, that at times runs as high as from six to ten feet. The Catamaran can be kept in attendance, as a life-preserver, in the event of any accident to the masula boat, by upsetting or in case of any of the Europeans being washed out by the surf. The crews of the masulah boats are brave self-reliant men.

The masula-boats receive their cargoes and passengers from the ships outside the surf; and land them in perfect safety, provided the crew be treated with civility; if otherwise, they will not fail to moisten the offender, to such a degree as to show the passengers that they are in their power, and make them objects of derision to the men on the beach. These boats are rowed by twelve men, in double banks, with bamboo paddles; that is, a board about ten inches broad and fourteen inches long, fixed at the end of a bamboo. They are steered by two tindals (coxwains) and two men are constantly kept to bale out the water; from which employment they are promoted to the paddle, or bow-oar; after which they fall aft, in rotation, to be a tindal or steersman. The steersman gives time by a song, which is sung by all the boatmen; and according as its modulations are slow or quick, the oars are plied. These modulations are regulated by the waves, as they may be slow or rapid, in succession. On one occasion, a passenger of rank showed impatience at this noisy song, and the boatmen were desired to cease; but the steersman refused compliance with the order, saying that without his song he would not be answerable for the safety of the passenger. (Note by Sir J. Malcolm.) The dimensions of the masula-boat are from thirty to thirty-five feet in length, ten to eleven feet in breadth, and seven to eight feet in depth.

Mangalore Manche of the Western Coast of the Peninsula.—Is a flat bottomed boat of burthen, about twenty-five to thirty-five feet long, six to seven feet broad, and four to five feet deep. It is formed to meet the river, which is very shallow and flat; and to land the cargoes of the patamars, which are discharged and loaded at the mouth of the rivers. These boats are sewed together similar to the masula-boat and other native vessels: they are forced along by bamboo poles; as the water is not more than from six to ten feet deep, except in the south-west monsoon, when the rapids swell, and the whole of the river is considered impassable; and at this period all the vessels are taken to the shore and laid up.

Calicut Manche.—Is a boat very similar to that of Mangalore with the exception only of a raking stem, for the purpose of taking the beach; as the port of Calicut is open to the coast and there is no river. These boats are propelled by the paddle and sail and generally carry eight men: they are much employed in watering and completing the sea-stock of ships homeward-bound; also in loading ships with pepper, timber, &c., for Bombay; and in shipping the produce of the forests of Canara and Malabar, all of which is rafted off to vessels called dow, boatile, patamar, &c., hereafter described.

'*Panyani Manche.*—Is a coasting boat, of about fifty feet long, ten to twelve feet broad, and five to seven feet deep. It is framed with timbers and planks; which are sewed together, as before described. The timbers are about four feet asunder, and on them, inside, some few planks are placed as bands and clamps, which are nailed to the frame. These are very rudely put together; and not of much importance, either in form or construction. During the south-west monsoon, or from June to November, they are laid up at Baipur river for safety, and are only used in the fine-weather season. They carry the productions of the cocoanut tree, viz. coir, copra, cajan, the leaf of the Corypha umbraculifera which is used for coverings of houses, also for books, and various other purposes. Jageri, oil and arrack, to Cochin and Mangalore; and bring from these parts rice, cloth, salt, &c. These vessels keep along shore and take advantage of the sail in rowing. They have generally from eight to ten men, who are fishermen of the Mopila caste. A race of Musalmans, descendants of the first Arabian settlers on the shores of the peninsular; and who marrying the daughters of the country, obtained the name of Mapillai, or "sons-in-law," corrupted by Europeans into the above term.

The Patamar, are a class of vessels which may be considered the best in India; as they sail remarkably well, and stow a good cargo. They belong principally to Bombay merchants, and carry on the whole of the coasting-trade to that port. They are grab-built: that is, with a prow stem, which is the same length as the keel; and the dimensions of the large class are seventy-six feet six inches in length, twenty-one feet six inches in breadth, eleven feet nine inches in depth, and about two hundred tons burthen. They are planked with teak, upon jungle-wood frames; and are really very handsome vessels, being put together in the European manner, with nails, bolts, &c. and their bottoms are sheathed with inch-board, and a layer of chunam mixed with cocoa-nut oil and a portion of damar (country rosin): this is a very durable substance, and a great preservative to the plank against worms.

Some of the smaller class of these vessels, of about sixty tons burthen, are sewed together with coir, as other native boats are. The small class has one, and the large class two masts, with the lattan sail: the foremast raking forward, for the purpose of keeping the ponderous yard clear when it is raised or lowered. The yard is slung at one-third of its length, the tack of the sail is brought to the stern-head, through a fixed block; and the sheet hauled aft at the side, as usual. The haul yard is a pendent and treble block, from the mast head aft to midships; thus acting as a back stay for the mast's security, together with about two pairs of shrouds. These vessels generally export salt from Bombay to the coast, and take back coir, rice, cocoa-nut, copra, oil, timber, sandal-wood, pepper, and various articles, the production of the coast. They are navigated with much skill, by men of the Mopila caste and other Musalmans; and have a crew of ten or twelve men, and a tindal, who are good pilots and navigators off the coast from Bombay to Cape Comorin; generally speaking, honest and trustworthy; and very respectful to Europeans.

The Arab Dow, is employed in the trade between the Red Sea, the Arabian Coast, the Gulf of Persia and the coasts of India, in Cutch, Guzerat and Malabar. They were also used in the Persian Gulf, for the purpose of war and piracy. They are always manned by Arabs. The Arab Dow is of about one hundred and fifty to two hundred and fifty tons burthen, by measurement; grab-built, with ten or twelve ports; about eighty five-feet long, from stern to stern; twenty feet nine inches broad; and eleven feet six inches deep. Of late years, this description of vessel has been built at Cochin, on the coast of Malabar, most perfectly, in the European style. These vessels have a great rise of floor; are calculated for sailing with small cargoes; and are fully prepared, by internal equipment, for defence, with decks, hatchways, ports, poop-deck, &c., like a vessel of war; many of them are sheathed, on two-and-a-half-inch plank bottoms with one inch board, and the preparation of chunam and oil, as before described, which is called galgal, put between the planks and sheathing-board, causing the vessel to be very dry and durable; and preventing the worm from attacking the bottom. The worm is one of the greatest enemies in India.

to timber in the water, while the white ant is as much so out of it. On the outside of the sheathing board there is a coat of whitewash, made from the same articles as that between the sheathing and planks; which coat is renewed every season they put to sea. These vessels have generally one mast, and a latteen-sail: the yard is the length of the vessel aloft; and the mast raking forward, for the purpose of keeping this ponderous weight clear, in raising and lowering. The tack of the sail is brought to the stern-head, and sheets aft in the usual way; the haulyards lead to the taffrail, having a pendent and treble purchase-block, which becomes the backstay, to support the mast when the sail is set: this, with three pairs of shrouds completes the rigging; which is very simple, the whole being of coir-rope.

Several of these vessels have been fitted as brigs, after their arrival in Arabia; and armed by the Arabs for cruising in the Red Sea and Arabian Gulf, as piratical vessels: they are also the class of vessels of which Tippu Sultan's fleet at Onore consisted. When armed, they were too powerful for the Bombay marine brigs, but this never happened, but when in great numbers, and the brigs weak and unsupported.—(Note by Sir J. Malcolm. The large dow make generally one voyage in the season, to the southward of Arabia; taking advantage of the north-east monsoon to come down, and the south-west to return with an exchange cargo. They generally bring dates, fruit, preserves, Shiraz-wine, and horses; and take back rice, coir, canvas, cocoanuts, oil, timber, damar, &c., various articles of cloth of the country manufacture, and from Bombay, European articles of every description. The trade of this part of the country is very great in those vessels; extending from Allipey, the southernmost port on the coast of Malabar, up to Bombay: but all the trade to Bengal is carried on by ships which are called "Country Traders," from the Gulf of Persia and Arabia. The Arabs are a powerful, well grown, handsome people, and very acute and intelligent in trade. They usually navigate their ships to Bengal in perfect safety, and with great skill: This was well known to Captain Collier and his officers, of the Liverpool frigate, when they had the trial cruise with the Imam of Mascat's fine frigate, in 1820.)

The Baggala, or Budgerow.—This is an Arabic word the feminine of "baghl" a mule. The Buggala is engaged in the trade of Cutch, Guzerat and the Malabar Coast, to the gulph of Persia, the Coast of Arabia and the Red Sea. They are Indian vessels and manned with Indian seamen called lascars. It is one of the most ancient vessels to be met with in the Indian Seas. Their extreme length, from stern to taffrail, is about seventy-four feet, the breadth about twenty-five feet, and the depth in hold eleven feet six inches, with about one hundred and fifty tons burthen. The peculiarity of form and extraordinary equipment of these vessels is said to have been the same from the period of Alexander the Great: they are armed with two guns on the after part or right-aft of the stern for defence against pirates; and have their poop-decks with a round stern: their extreme sections about the centre or middle of the vessel: they are very broad in proportion to their length, with a sharp rising floor: the stern is straight, and rakes very little more than the stern-post.

These vessels are constructed with timbers and planks, which are nail and trenail fastened, in the most rude and unsafe manner possible, The topside above the deck is barricaded with mats on the outside of the timbers, which run up to about eight feet from the deck; and when they have no cargo on board, this barricade is removed.

They have only one mast; with a huge yard made from two spars, the small ends lashed together, and a latteen sail, the tack of which goes to the sternhead, as in the other vessels before described: they generally trade like the Dow; and are navigated by Arabs and the people of Cutch.

This singular and rude vessel, as well as the Arab Dow, is peculiarly adapted to the coasts of Arabia and the Red Sea, which are subject to periodical winds during which these vessels are navigated with much ease.

The Sambuk is a small coasting vessel from fifteen to fifty tons burthen, trading in the Red Sea.

The Doni of the Coromandel coast, is a huge vessel of the ark like form, about seventy feet long, twenty feet broad, and twelve feet deep; with a flat bottom or keel part, which at the broadest place is seven feet; and at the fore and after-parts of the vessel it breaks into ten inches, which is the siding of the stem and stern-post. The fore and after bodies are similar in form, from midships. Their light draught of water is about four feet; and when loaded, about nine feet. These rude unshapely vessels trade from Madras and the coast to the Island of Ceylon; and many of them to the Gulf of Manar, as the water is shoal between Ceylon and the southern part of the Continent. They have only one mast, with a long sail; and are navigated from land to land, and coastwise, in the fine season only.

It may not be uninteresting to know the means used, by the people who navigate these vessels, to find the rate of current in the Bay of Bengal, which is very great at the change of the season or monsoon, as much as sixty miles in twenty-four hours. When they are off a port, in a calm, they throw a handful of sand or shells and feathers, in the calm sea ; and by the drifting of the feathers on the surface, and sinking of the sand or shells, a calculation of the rate of current is formed, and they anchor off the coast accordingly.

The anchor is made in the most simple way imaginable, by lashing together three crooked branches of a tree, which are then loaded with heavy stones, and their cable is formed from coir-yarns. In fact, the whole equipment of these rude vessels, as well as their construction, is the most coarse and un-seaworthy that I have ever seen, and far behind those of any other part of India.

The Boatila Manche, of the Island of Ceylon, navigates the Gulf of Manar, and the southern part of the Peninsula of India. This boat, which is about fifty to sixty feet in length, sixteen to eighteen feet in breadth, and eight to ten feet in depth, has more of the European form than any of the Indian-built vessels that are met with. The after part shews the origin to be of Portuguese construction, as it is very similar to that of many of the boats still in use by the people of that country ; which are said to be of the same shape as the vessels in which Vasco De Gama sailed to India.

They have a deck fore and aft ; and are built with all sorts of jungle-wood, in a very rough manner, and fastened with nails and bolts. They are equipped with one mast, which inclines forward, and a square lug-sail ; also a small bowsprit, at about the angle of 45°, with a sort of jib fore-sail, one pair of shrouds, and a back-stay which completes the rigging. These vessels carry on the trade of the island across the Gulf. The exports are, rice, tobacco, &c. and the imports, cloth. This forms a great part of the inland revenue of the island, in the district of Jaffnapatam.

China, Malacca, Archipelago —The Boats of the Straits of Malacca are the Prahu, Sampan, Lorcha, Pukat and Tongkong or Ting-King. In the Eastern Archipelago, the generic name for a boat or vessel, large or small, is Prahu, a word almost naturalised in the European languages. It belongs equally to the Malay and Javanese languages, and from these has been very widely spread to others, extending as a synonym to the principal Philippine tongues. The usual name for a canoe or skiff, both in Malay and Javanese, is sampan. The large vessels which the natives of the Archipelago used in war and trade were called by them Jung, which is the word, corrupted junk, that Europeans apply to the large vessels of the Chinese, of which the proper name is wang-kang. For a square-rigged vessel or ship, the natives have borrowed the word Kapal from the Teling people. Names vary with the forms of vessels, and the uses to which they are put ; and these again differ with nations or tribes so as to be innumerable.

The most common pirate vessels made use of among the floating communities from the Straits to the South-Eastern groups, are the *penjajap* and *kakap*, with *paduakan*, and Malay boats of various size and construction.

The *penjajap* is a prahu of light build, straight, and very long, of various dimensions, and carrying usually two masts, with square kadjang sails. This boat is entirely open, except that aft is a kind of awning, under which the headman sits, and where the magazine of arms and ammunition is stowed away. In front it carries two guns of greater or less calibre, of which the muzzles peer through a wooden bulwark, always parallel to the line of the keel. Penjajap of large size generally carry, in addition to these, some swivel pieces, mounted along the timber parapet ; while boats of inferior tonnage are armed only with two lelah, elevated on a beam or upright. From twenty to thirty rowers, sitting on benches well covered with mats, communicate to the vessel with their short oars a steady and rapid motion, the more swift in proportion as the prahu is small. Large ones, therefore, are often left hidden in some creek, or little maze of islets, while the light skiffs, flying through the water, proceed on their marauding errand.

The Kakap prahu is a small light boat, provided with a rudder oar, but with no other oars or sculls. It carries only one mast, with a single quadrangular sail. Like the penjajap, it is built of very buoyant timber, planks being held together by wooden pins, and lashed with rattans. The pirate never goes to sea with a kakap alone, and the voyager may be sure whenever he descries a kakap, that a penjajap is not far behind, moving along, perhaps in the shadow of the high coast, or lurking behind some island, or lying within the seclusion of some woody creek. Eight or ten of the best fighters are usually chosen to man these light skiffs, which remind us of those flying proas of the Ladrones described by a French voyager (*Note to Sonnerat*, 139.) In calm weather the pirates row in these buoyant gallies along the shore, or mount the small rivers, confiding in their agility, and knowing well that if surprised they may fly into the woods, bear their little skiff with them, and launch it again at some spot unknown to their pursuers. (*Kolff Rapport*, 1831.)

The *Paduakan* are native vessels having a single mast in the form of a tripod, and carrying a large lateen sail of mat. They are from twenty to fifty tons burden, and of great beam, with lofty sides, and little hold in the water. They are steered by two long rudders, which are lifted up when the vessel is moored or passing through a shallow. (*Earl, Voyage of the Dourga, note,* 89.)

The ordinary prahu made use of by the Malay pirates, at the present day, are from eight or ten tons burden, very well manned and exceedingly fast. Usually they are armed on the bows, centre, and stern with swivel pieces, (*John's Indian Archipelago, Vol. II. page from* 182 *to* 184.)

A second class Lanun pirate prahu of Mindanao, carries a crew of about 60 men. It has a stage or platform suspended to the mast with grapling hooks attached to the end which is used as a bridge for bordering a prize. The first class Lanun pirate prahu of Mindanao carries a crew of 100 men or thereabout. In this description of vessel, the tripod mast, the two after feet of which work on hinges, is used as a bridge in boarding.

The trade with New Guinea and the Eastern Islands, (commonly called the Bugis Trade) and the Trepang fishery on the North Coast of Australia, is carried on chiefly in vessels called "Padduakkan." These leave Macassar and the other parts of Celebes, for the Eastern Islands during the westerly monsoon, returning with the south-east trade wind.

The "Sampan" boat is well known at Singapore and remarkable for its swiftness both with sails and oars. These boats when skilfully managed are exceedingly safe, and are sometimes employed on rather distant coasting voyages, from Singapore to Penang for example. The passenger Sampan is employed at Singapore chiefly in conveying passengers between the store and the shipping.

Kora-Kora is a boat of the Malay Archipelago, near Batchian, some of them of 4 or 5 tons burthen, they are open, have a bamboo outrigging five feet on each side which supports a bamboo platform, they are low in the water.

The "Dragon Boats" of China are long and narrow, capable of holding forty to eighty men. They are employed by the Chinese in their boat races and rowing matches, in the festival of the fifth day of the fifth month, usually falling in June, and seemingly relating to the summer solstice.—*Statistics of Commerce : Bunsen's Egypt, Vol. V. pp.* 233 *to* 264*; Mignan's Travels; page* 242*; Postan's Personal Observations page* 124-7*; Burton's Sind, Vol. II. page* 296*; Cunningham Hist. of the Punjab, Vol. I, page* 19*; Dr. Taylor; Hooker's Himalayan Journ., Vol. I, page* 302*; Powell's Handbook ; Econ. Prod. Punjab, page* 158 *; Wellsteds' Travels, Vol. I. page* 16 ; *Burton's Pilgrimage to Meccah, Vol I. page* 262 ; *Report of John Edye, Esq., late Master Shipwright of His Majesty's Naval Yard at Trincomallee, afterwards Department of the Survey of the Navy,* communicated with notes by *Major-General Sir John Malcolm,* G. C. B., K. L. S. M. R. A. S., &c, &c. *to the Journal of the Royal Asiatic Society, and read* 1st of June, 1833, *in the Journ. of the Royal Asiatic Society, No. I. July* 1834, *from page* 1 *to* 14*; Crawfurd Dict. page* 55 ; *St. John's Indian Archipelago, Vol. II. page* 183 *to* 184, *Mr. Russel Wallace,* ii, 35. *Mr. Netscher in literis.*

BOATLOO, HIND. a bamboo of Kangra.

BOAZ, the name of one of the pillars erected by Solomon at the Jerusalem temple. It means advancing. The other Jakin or Yakin, means firm, stable.—*Bunsen.*

BOBAN ESWARA. See Karli.

BOBBARLU, TEL., also Alachandalu, TEL. Dolichos sinensis, L.

BOBBERY, ANGLO-HIND. for Bap-re. HIND. Oh, thou father ! a disrespectful address ; to create a bobbery, is to cause a disturbance.

BOBILLY, in L. 83° 30 E. and L. 18° 25' N., a zemindari in Vizagapatam.

BOCCA TIGRIS, a narrow channel, formed at the mouth of the Canton River, by the small island North of Wang-tong, and Anunghoy point. The Bocca Tigris is further contracted by a chain of rock above water at a small distance from Wang-tong.—*Horsburgh.* See Wang tong.

BOCHO, HIND. Macrotomia euchroma.

BOD, in the language of Sadak is Tibet. See Bhot, Bot ; Himalaya.

BODA, in L. 44° 4' E. and L. 18° 34' N.

BODA CHANDRA, TEL. Mimosa rubicaulis, *Lam.* means the small or bare *Chandra,* Acacia sundra.

BODADANDO, in L. 77° 45' E. and L. 14° 45 N.'

BODAH, HIND. also BONDAGA. HIND. Lagerstrœmia lanceolata.

BODARA, HIND. Marlea begonifolia.

BODDAREE, in Long. 85° 37' E. and Lat. 26° 42' N.

BODEPILLY, in L. 83° 57' E. and L. 18° 51' E, and L. 18° 16' N.

BODHE, in L. 87° 10' E. and L. 27° 3' N.

BODICE or Choli is used everywhere except in the south of the Peninsula. It is cut in square pieces which meet in front, and are tied by the ends in a strong knot under the breasts ; and the sleeve, which in some instances reaches below the elbow, and in others above it, is put into the hole left unsewn in the upper part of the square body piece. The construction of this article of dress is very simple, and some women make their own. In the south of India bodices are not worn by the women of some races. It is only, they say, courtesans, who are ashamed of them who hide their bosoms. A form of bodice, named 'angia,' is entirely closed in front, and is shaped out to fit the bosom. This garment is worn alike by mahommedan and by many hindu women. The dress of mahommedan women further consists of petticoats, generally very wide indeed, and falling in heavy folds. Some wear an underpetticoat of fine calico as a protection to the costly stuff of which the outer garment is composed, or to escape friction. The stuff—satin, silk, or cotton cloth, is gathered into a strong band of tape, which is tied over one hip, and the plaits or gathers are carefully made, so as to allow the cloth to fall in graceful folds. Over the cholee or angia-bodice is a light muslin shirt, which continues below the waist, called a koortni: and over all a scarf of white or coloured muslin of fine texture, dopatta, passed once round the waist, and thence across the bosom and over the left shoulder and head, like the saree, completes the costume. Where the langa or petticoat is not worn, paijama or trousers take their place. These are sometimes worn loose, as in Oude and Bengal; and elsewhere as tight as they can be made. The cutting out of these tight trousers is no easy matter for they have several gores on the inside of the thigh; and are contrived so that they are flexible, however tight, and do not hinder the wearer from sitting cross-legged. With the trousers, which are tied at the waist, are worn the angia or cholee bodice, the koortni or shirt, and the dopatta or scarf. In full dress a mahommedan lady wears the peshwaz or Persian robe, in which dancing-women usually perform. It has long tight sleeves, a tight body crossed in front, and a very voluminous muslin skirt, the most fashionable amplitude being about forty, or even sixty yards in circumference. This garment is often trimmed in a costly manner with gold or silver lace, and is only worn as a bridal dress or at domestic festivals. Any additions to the above consist only in variations of the component parts; cloth for bodices is made like sarees with coloured borders. In the cutting out of the bodice, it is contrived that each sleeve ends with the border, and that it runs round the bottom of the garment, if not entirely, at least to some extent. Bodices are also made of English white muslin, jaconet, or fine calico, and of chintz, provided the colour is fast, many are of silk and cotton mixed, others of silk or cotton only.

Silk sarees and 'pitambars,' or men's silk waist-cloths, are worn by hindus at entertainments and festivals, as also in religious worship, Sarees are nearly universal for hindu wear, and *soussee,* made into petticoats and trousers, is as universal for mahommedan women and men also, and it has this advantage over sarees, that the colours and patterns differ very little anywhere within the confines of India: whereas sarees, dhotees, and loongees must be made to suit particular localities, and the patterns of one locality would inevitably be rejected in another. A kind of soussee is produced in France, blue striped, closer in texture than the Indian, perhaps, but belonging to the same class or category; and another called "grivas," in particular near Vichy, both excellent and fast coloured fabrics, and both used for trousers and blouses. The Indian soussee are always striped or checked, woven in narrow patterns, with coloured yarns, blue and white, black and blue, red and blue, yellow, white, and blue, green and chocolate, as detailed in Dr Watson's list; and they are worn, fine and coarse, literally by millions of the people of the middle and lower classes. In Sindh, under the shift, but of cloth called kanjari, the choli, or gaj conceals the bosom. When it passes round the side like a bodice and is fastened behind, its name is puth. This article of dress is very often omitted in Sindh, a fact which may in some measure account for the pendent shape which the bosom assumes even in young women after a first or second child. —*Watson; Burton's Sindh, p.* 301.

BODIN, a town of Hyderabad in the Dekkan. See Koli.

BODO. This population extends from Bahar and Bengal on the west, to the Sikkim and Butan frontiers. They occupy the lower ranges of the Himalaya, on the northern parts of the valley of Assam. The western branch of this tribe belongs to Bahar and Bengal, and to the Sikkim and Butan frontiers, the eastern branch occupies Assam and Cooch. They build their huts of grass and bamboo and reside in villages of from ten to twenty huts. They do not use leather in their arts or trades, and do not use wool as clothing, the latter consists of cotton and silk materials. They use utensils of brass, ropes of grass and baskets of bamboo. Jo, barley, fermented rice, or millet, is used by them as a slightly intoxicating beverage, and resembles the Ajimana of the Newar of Nepal. They till the soil, but do not occupy a locality permanently, clearing and cropping and moving again to clear and crop another spot. The head of the village is called Gra. A Bodo and Dhimal will only touch flesh which has been offered to the gods by a priest. The bride-groom purchases his bride either by money or labour. Poligamy is rare. There are professed exorcists among them.

The eastern Bodo in Cachar are called Borro and are divided into the Cachars of the hill country and those of the plains. They are partly hindu and partly pagan. Those in the plains in Assam are called Hazai, Hojai or Hajong, are of the hindu creed, and speak a hindu dialect. The hill Cachar is stouter, hardier and more turbulent, and lives in villages of from 20 to 100 houses. Like the Naga, their young men of a certain age, leave their parents' dwellings and reside together in a large building. Chatgari, a frontier district between Desh During and the Butan hills, is the chief locality of the Borro of Cachar, their numbers there being about 30,000, or half the whole Borro population. Of the three separate people the Koch, the Bodo and the Dhimal, the faintly yet distinctly marked tpye of the Mongolian family is similar in all three, but best expressed in the Bodo features and form. When the mahomedan power was established in Bengal the Koch (Kocch or Kavach) kingdom extended from 88° to 93° E. L. and from 26° to 27° N. L. from the south eastern extremity of Nepaul along the southern extremity of Sikkim and Butan into Assam, with Kooch Bahar as its capital and the people consisted of the present Kooch, Dhimal and Bodo. They dwell in the Sal forests with impunity.—*Latham's Descrip. Ethn.*; *Hodgson.* See Aborigines, India, pp. 334, 7, 8, 9; Kocch; Sal; Rajmahal.

BODOANDA, a Jakun tribe, inhabiting Quedah. See Quedah.

BODOKA, Uria ? In Ganjam and Gumsur, a timber tree, extreme height 35 feet, circumference 3 feet, and height from the ground to the intersection of the first branch, 15 feet. A light, white wood, used for scabbards, bazar measures, boxes, bullock yokes, the poles of palanquins and tonjons and for toys. It is tolerably common.—*Captain Macdonald.*

BODON, Hind ? A tree of Chota Nagpore, with a hard, reddish grey timber.—*Cal. Cat. Ex.* 1862.

BODHISAT, also Bodhisatwa, a candidate for the superior budhaship in buddhism, an actual experimental religionist.—*Hardy's Eastern Monachism*, p. 434. See Lamo; Sakyamuni.

BODINGAN. Sumatran. Brinjal.

BOD-PA, a name of Tibet.

BODRA NAGRI, a place in Cutch with ancient ruins, described by Captain Postans. Qu. Budha-nagri ?

BODUR, in L. 76° 4′ E. and L. 20° 57′ N.

BODA MAMIDI. Tel. Ficus oppositifolia, *R.*

BODANKI CHETTU, Tel. Balsamodendron agallocha, B. Roxburghii, *Arn.*—*W. Ill.* i. p. 185.—Amyris commiphora, *R.* ii. 244.

BODANTA CHETTU, Tel. Bauhinia purpurea, *L.*

BODASARAM, Tel. Stemodia viscosa, *R.* iii. 94. Sphœranthus hirtus.

BODATARAPU CHETTU, Tel. Sphœranthus hirtus, *Willd.*

BODDA CHETTU Tel. (*Medi chettu,*) Tel. Ficus glomerata, *R.* iii. 558.—F. racemosa, *Willd.* This name, as well as *atti* and *medi*, is applied indiscriminately to various kinds of *Ficus* but most frequently to *F. glomerata.*

BODDAMA KAIA. Tel. Bryonia callosa. The bitter seeds are given in worm cases and yield also a fixed oil used in lamps ; it is the "Boddama Kaia Noona."—*O'Shaughnessy, p.* 348.

BODDA NAR. Tam. ? fibre of Ficus oppositifolia.

BODDA MAMIDI. Tel. Cupania canescens, Pers.—Molinœa can. *R.* ii. 243.

BODDA WOOD. Anglo-Tam. Ficus racemosa.

BODDI CHETTU, Tel. Macaranga Roxburghii, *R. W. Ic.*—Osyris peltata, *R.* iii. 755.

BODDI KURA, Tel. Rivea hypocrateriformis, *Ch.*—Lettsomia uniflora, *R.* i. 495. The leaves are used as a vegetable in the south as are those of *R. Bona-nox* in Bengal, *Voigt.* The Sans. Syns. *Avegi*, and *Junga*, are said to be *Argyreia argentea*, Ch. The buds of Calonyction and some sp. of Ipomœa, especially I. reptans, are also eaten as vegetables (*kura*).

BODDU KURA, Tel. Portulaca tuberosa, *R.* ii. 464.

BODDU MALLE, Tel. Jasminum sambac, *Ait. var.* plenum.—*R.* i. 88.

BODDU PAVILI KURA, or Ganga pavili kura. Tel. Portulaca oleracea, *L.*—*R.* ii. 463.

BODDU TUNGA, Tel. Hymenochæte grossa, *Nees.*—*W. contr.* 110.—Scirpus grossus and maximus *R.* i. 231.

BODHI, Burm. The Peepul tree under which Gautama attained the Buddha-hood. See Bo-Tree. Buddha.

BOECHEE, Hind ? A red colored wood, very hard and close-grained. The tree grows in the Santhal jungles from Raneebahal to Hasdiha or about forty miles, but scarce. Seemingly fit for any building purposes if it can be grown to any sufficient size, which it never has a chance of doing in its present condition in the jungles. Too heavy for use generally with reference to timber bridges.—*Cal. Engineers' Journal, July* 1860.

BOEHMERIA, a genus of plants, belonging to the Nat. Ord. Urticaceæ of which the following species occur in India,

B. Macrostachya, Garhwal, Simla.

B. Macrophylla, D. Don, Nepal.
B. Platyphylla, do. do.
B. Frutescens, Thunb. do.
B. Frondosa, D. Don. do.
B. Ternifolia, do. do.
B. Salicifolia, D. Don., Moluccas, Himalaya.
B. Interrupta, Willd. Bengal, Bombay.
B. Goglado. Garhwal and Simla.
B. Candicans.
B. Nivea.
B. Puya.
B. Utilis.

Many of these are stinging nettles; B. nivea, the Urtica tenacissima of Roxb. (Fl. Ind. iii. 590) yields the Rhea fibre of Assam. B salicifolia, an edible berry.—*Roxb. iii.* 590, *Voigt:* See Decaschistia crotonifolia.

BOEHMERIA CANDICANS. See China-grass; Rheea.

BOEHMERIA FRUTESCENS. *Thunb.*

Poosh of the Parbuttiah
Kienki, Lepcha.
Yenki, Limboo.
Poee of Gurhwal and Kemaon.

This plant grows wild, to a height of six or eight feet, in the valleys of the mountains in Eastern Nepal and Sikkim and in the hills near the Terai to elevations of 1,000 to 3,000 feet. Its fibre is used for twine, rope, fishing nets and game bags and could be woven into sail cloth.—*Royle.*

BOEHMERIA INTERRUPTA. *Willd.*

Urtica interrupta.—*Linn.*

Lal bichhutee.........Beng.
Kyet-bet-ya.......Burm.

Grows in the Bombay and Bengal Presidencies and in Burmah. Its hairs sting like those of the nettle.—*Voigt*, 281.

BOEHMERIA NIVEA. *Gaudi.*

Urtica nivea.—*Linn.*

Rheea ....Assam.
Inan...... ... .Bonoa.
Goun...... ... .Burm.
Gambe. .East Celebes.
Chu......... .. ... . Chin.
Chu-ma...... ...Chinese.
Rheea grass... .....Eng.
Tsjo karao..........Jap.
Rami... ....Malay.
Puya...... ... .Panj.
Kunkhoora. Rungpoor.
Pan... . ... Shan.
Kalooee... ... ... Sumat.

This is found in the Sutlej valley between Rampur and Sungnam at an elevation of 4,000 to 6,000 feet. It grows also in Burmah and Assam and furnishes a textile fibre of great value which has attracted attention in Britain, and it is anticipated that fibres from this class of plants will eventually occupy a position second only in importance to those of cotton and flax. The fibre of the Rhea canAmi turned to account for the manufacture of a variety of fabrics of a very valuable and useful description, and its extended cultivation in India is worthy of every attention and encouragement. Some bales of Rhea fibre, lately put up for sale, realised at the rate of 80 £ per ton.

The great desideratum is an efficient machine for the separation of the fibre from its parent stem. See China Grass. Fibres, Grass cloth, Rheea.

BOEHMERIA GOGLADO, and B. Macrostachya, are common in Gurhwal and near Simla, and probably abound in fibre.—*Royle, p.* 372.

BOEHMERIA PUYA is botanically a different species from the B. nivea, though its fibre is almost identical with that furnished by B. nivea. It flourishes at Darjeeling, Dhera Dhoon and other places in the north of India. Its commercial value is the same as that of Rhea.

BOEHMERIA SALICIFOLIA; *D. Don.*

Urtica salicifolia, *Roxb.*

Siharu. Panjabi.

A plant of the Moluccas and Himalayas, as far as Debra Dhoon, found in Simla and in Gurhwal, and in the Sutlej valley between Rampur and Sungnam at an elevation of 6,000 feet. Used for making ropes. Its berries are edible.—*Royle. Voigt.* 280, *Cleghorn Punjab Report, p.* 68.

BOEHMERIA UTILIS.

Bon Rhea.
Bun „
Wild „
Jungle Rhea.
Leepeah of Nepal.

Grows in Nepaul, and Assam. Its fibre is well adapted for rope making, canvas, and lines; a five inch rope broke with nine tons —*Royle.*

BOERHAAVIA DIANDRIA.

Its edible part.

Gadhapurna...... Beng.
Spreading Hogweed. Eng.
S'madika......... ...Sans.
Mukărătte kire ....Tam.
Attika mamidi..... Tel.
Tikri ki bhaji .....Duk.

Its root.

Tikri ki-jar......... Duk.
Smadika...... ......Sans.
Mukaruttay ver....Tam.
Attica mammedi veyru..... ... .Tel.

Horsfield says that in Java the *Boerhaavia diandria* is deemed emetic. The Native practitioners reckon the root amongst laxative medicines and prescribe it in powder. The small round leaves which grow at the joints of the stalks of the plant, are eaten by the Natives. It appears to be the Taludama of the Hort. Mal.—*Ain's. Mat. Med. p.* 90; *O'Sh. p.* 512.

BOENPHAL, Hind. Fungus, *Sp.*?

BOERHAAVIA DIFFUSA Syn. of Boerhaavia diandria.

BOERHAAVIA ERECTA. *Linn.*

Boerhaavia procumbens.—*Rox. W. Icon.*

Shwet purna ... ...Beng.
Gadapurna............ „
Spreading Hogweed...... ....Eng.
Tikri ....Hind.
Gadapurna...... ...Hind.
Tamirama...... Maleal.
Mukaratay kiray...Tam.
Ataka mamidi... ...Tel.
Adavi mamena ...... „

BOERHAAVIA PROCUMBENS.

Mookoorootay-keeray, Tam.

A procumbent weed, with small red flowers, used by the natives with other leaves as greens. See Vegetables of Southern India.

BOERHAAVIA STILLATA.—*Roxb. W. Ic.*

Gujju Kanne Komali Tel.	Kame Komali Madinika... .. ..Tel.

BOERHAAVIA TUBEROSA.

Sindika and Punarnava... .. ..Sans	Attica mamidi veruTel.
Mukaratty ver........Tel	Tikri ke jar... ...Duk.

Root said to be emetic, is deemed laxative, and given by the natives in powder, a tea spoonful twice daily.

BO-GAHA, Singh. Ficus religiosa.

BOGHAZ, the term for the narrow and shallow channels through the sand-banks that stretch across the mouth of the Nile, preventing passage of ships of burden.—*Robinson's Travels in Palestine and Syria, Vol. I, p.* 11.

BOGLE, George, in 1774, was deputed to Tibet by Warren Hastings as Ambassador.

BOGNIO or BOUNIGO, the name in Japan for the "Governor."—*Hodgson, Nagasaki, p.* 6.

BOGOO, Tel. also Bugu, Tel. Charcoal.

BOG RANDIA? (Qu. Bag or Bagh Randia) Randia uliginosa.

BOGSHA. A tribe occupying the low Terai adjoining Rohilcund.

BOGUE FORTS were captured on the 25th February 1841.

BOGUMVANLU. Tel. From sanscrit Bhogam, Common women. See Basava, Murli, Jogi

BOHIRA, Hind. also BEORA. Hind Bignonia undulata.

BOHNI, Hind. with shopkeepers and hucksters the first money received of the day, it is the Handsel of the British.—*Elliot.*

BOHI. Of this people, there are 2,494 in the Oomraoti district: they are perhaps the Bhooi.

BOHOL, see Negros or Buglas Islands.

BOHRA, money lenders in the N. W. Provinces: many have become mahomedan converts. The word is said to be derived from "Beohar" trade. Sir J. Malcolm also says that the name "Borah," is unknown to the original country of the mahomedans of this race and is derived from the hindu word Behoorah, signifying "traffic." It is seemingly of this class that Sir J. Malcolm speaks when he says that besides the mahomedan Borah there is a tribe of brahmins from Nath Devara in Mewar, who have likewise this appellation.—*Elliot. Malcolm's Central India, Vol. II, p.* 111.

BOHRA, a religious sect found in the Rajpoot states, who represent themselves to be the descendants of the followers of the Sheikh ul Jabl, or the celebrated old man of the mountain. They acknowledge an Archamandrite or religious chief: they principally follow mercantile pursuits. The mahomedan shopkeepers on all the western side of India and as far east as Secunderabad and Bellary are Bohra and they are also settled in many parts of Central India and in the North Western Provinces. They are fair, somewhat taller than the average Englishman, and acute, enterprising men. Wilson says that these appear to have originated in Guzerat, where they became converts to mahomedanism but they seem to have come from Sindh They are a very important mercantile race. Sir John Malcolm says there are many of them in the larger cities of Central India engaged in every species of commerce as wholesale merchants of the first class, as well as pedlars; and sometimes both characters are to be found in the same person. The Borah who came from the sea-coast of Guzerat into Central India, have imported the improvements of European settlements, even in the construction of their houses and furniture: they are the chief medium through which the trade in European articles is carried on; and in every town in which they settle, they form a distinct colony. The good understanding in which they live with each other strengthens their association: and though they have at times suffered from the violence of power, few of the industrious classes have escaped so well, during the worst of times, as the Bohras. They are united under the spiritual rule of their elected mullah, or priests, to whose orders, in conformity with the ancient precepts of the remarkable sect of mahomedans to which they belong, they render implicit obedience. They are of the tribe of Hassannee, once so dreaded in Egypt and Persia for the acts of murder and desperation which they perpetrated in blind obedience to the mandate of their spiritual lord, so famous in the crusade history under the name of The Old Man of the Mountain.

At Oojein, in Sir J. Malcolm's time, twelve hundred families lived in four mahal or wards connected with each other, but separated by strong gates from the other parts of the city. No one except a Borah could enter their precincts without leave. The chief Mullah, who resides at Oojein, is appointed by the high priest of this class at Surat: his authority extends over all his sect. His orders go to regulate their most minute actions; and he promulgates annually a table of rules for their guidance. He promised Sir John Malcolm a census of the Borah in his diocese or charge, whom he estimated, at nearly ten thousand families or about forty-five thousand souls. They seem to abstain wholly from political intrigue they are liberal-minded and open-handed, and, as good citizens, far excel the mahomedans either of Arab or Persian descent.—*Malcolm's Central India, Vol. p.* 112.

BOI, TEL., also pronounced Bhui on the Madras side of the peninsula, a palanquin bearer, employed, also, as a house servant, supposed to be the original of the serving "Boy" of Europeans in Madras.

BOIDU, TEL. According to Wilson a man of the cowherd or shepherd caste.

BOIS, FRENCH. Wood, hence, Eagle or Aloes wood.

Bois D'aigle, FR. Aquilaria agallocha.—*Roxb.*

Bois de Bresil, FR. Brazil wood.

Bois de Campeche, FR. Logwood.

Bois de Colophane, FR. Colophonia: Canarium commune.

Bois de Fer, FR. Iron wood.

Bois de Quassie, FR. Quassia.

Bois de Reglisse, Fr, Liquorice root.

Bois du Rose, FR. Rose wood.

Bois Immortel, FR. Cacao.

Bois Jaune de Bresil, Fr. Fustic.

BOJ, HIND. Acorus calamus, also Typha angustifolia.

BOJA, TEL. Inga xylocarpa.—*D'C.*

BOJAH, HIND. Eleusine coracana. Perhaps the boza, beer, made from this grain.

BOJAJA, JAV. Crocodile.

BOJIDAN. The root of a small plant brought from Delhi to Ajmere; esteemed as heating, and used to strengthen, and as an aphrodisiac; one seer costs two Rupees.—*Gen. Med. Top. p.* 130.

BOKA, HIND. A basket, pail or leather bag, for throwing water to a higher level. It is the source of the English word bucket.—*Ell.*

BOKADA, TEL. Clerodendron viscosum. —*Vent.*

BOKAT, HIND. Asphodelus fistulosus.

BOKHARA. An isolated kingdom in Turkestan, of small extent, surrounded by a desert. It lies between the parallels of 37° and 43' N. and L. 60° and 68° E. It is an open champaigne country of unequal fertility, and intersected by the Oxus on the southern border. Its rivers are the Amu or Oxus, Sir or Jaxartes, the Kohik or Zar-afshan and the river of Kurshi and Balkh. It is ruled over by an Amir, whose sway may be comprised between the 37° and 43° north lat. and between the 60° and 68° of east long. or a space of 172,800 geographical square miles, out of which only 5,000 or 6,000 miles are occupied by inhabitants in fixed abodes while nine-tenths of its territory are either utterly unfit for occupation, or at least untenanted. A considerable portion of the khanat consists of a clayey, saline soil, and sandy steppes, with a visible slope to the south-west, while it is barricaded to the north-east by huge ranges of mountains. The aborigines are the Tajik, whose origin and time of immigration to Bokhara are unknown; previous to the conclusion of the first century of the hijira, the followers of Mahomed penetrated into their peaceful abodes, and forced them at the point of the sword to embrace the new creed. At that period, Bokhara was governed by the race of the Samanides. In the tenth century, the weak rule of these princes was totally overthrown by the Uzbeks, whose power was not of long duration; for, in the twelfth century the Khanat of Bokhara was deluged by the overwhelming flood of the Moghul hordes of Chinghiz-khan and the Uzbeks were expelled by the Moghuls into the desert to the west of the Sir-i-Dariya. Bokhara has often changed its rulers and modified its inhabitants. At each successive influx, new tribes were added to the bulk of the population. This intermixture was more particularly felt whenever the Uzbeks re-entered the Khanat. Of the Tajik aboriginal inhabitants there is but a remnant left, which forms the chief population of the city of Bokhara; in other towns there are none, or very few indeed. Owing to their peaceful disposition, not to use the word cowardliness, they abstain from taking any part in warlike achievements. The most salient traits of their character are avarice, falsehood, and faithlessness. They are usually tall; have a white skin with black eyes and hair. Although in their dress they strictly adhere to the rules of the Kuran, there is still much greater affectation than is observable among the Uzbek. Their politeness in conversation often becomes disgusting, especially if they require the assistance of the person to whom they address their words. The number of the Arabs is somewhat greater than that of the Tajiks. They are chiefly dispersed over the northern parts of the Khanat, having their head quarters in the vicinity of Vardanzi and Samarkand. They have not relinquished the habits of their ancestors, and continue to lead a wandering life, with this difference, that the severity of the climate has induced them to exchange their tents for the *kibitki*. Such only as are compelled, by the nature of their occupation, live in fixed habitations. Their features betray their origin; their large eyes are black as well as their hair; and their skin, which is very susceptible of the effects of the sun's rays, often becomes nearly black from exposure. They speak Arabic amongst themselves. The Uzbek are undoubtedly the preponderating race in Bokhara, not so much from their number, as by the ties which bind them together. They are divided into stems and sections, like the Kirghiz, and have their elders, or beys, who enjoy a certain consideration among them : the Uzbek branches with some of their subdivisions, are enumerated as follow in the work called "Nassed Mameti Uzbekia."

1. Manghit.
a. Juk-Maughit.
b. Ak-Manghit.
c. Kara-Manghit.
2. Ming.
3. Yuz.
4. Kirk.
5. Ung.
6. Ungachit.
7. Jilair.
8. Sarai.
9. Kungrad.
I.—Kanjagali.
a. Urus.
b. Kara-kursak.
c. Chullik.
d. Kuyan.
e. Kuldauli.
f. Miltek.
g. Kurtughi.
h. Gale.
i. Tup-kara.
j. Kara.
k. Kara-bura.
l. Nogai.
m. Bilkelik.
n. Dustnik.
II.—Oinli.
a. Ax-tana.
b. Kara.
c. Churan.
d. Turkmen.
e. Kuuk.
f. Bishbala.
g. Kara-kalpak.
h. Kachai.
i. Haj-becha.
III.—Kushtamgali.
a. Kul-abi.
b. Barmak.
c. Kujahur.
d. Kul.
e. Chuburgan
f. Karakalpak-kushtamgali.
g. Saferbiz.
h. Dilberi.
i. Chachakli.
IV.—Yaktamgali.
a. Tartugu.
b. Aga-maili.
c. Ishikali.
d. Kizin-zili.
e. Uyugli.
f. Bukajli.
g. Kaigali.
V.—Kir.
a. Juzili.
b. Kusauli.
c. Tirs.
d. Balikli.
e. Kuba.
10. Yelchin.
11. Arghun.
12. Naiman.
13. Kipchak.
14. Chichak.
15. Aurat.
16. Kalmak.
17. Kar-tu.
18. Burlak.
19. Buslak.
20. Samarchin.
21. Katagan.
22. Kalechi.
23. Kunegaz.
24. Butrek.
25. Uzoi.
26. Kabat.
27. Khitai.
28. Kangli.
29. Uz.
30. Chuplochi.
31. Chupchi.
32. Utarchi.
33. Upulechi.
34. Julun.
35. Jid.
36. Juyut.
37. Chil-Juyut
38. Bui-Maut.
39. Ui-Maut.
40. Aralat.
41. Kireit.
42. Ungut.
43. Kangit.
44. Khaleuat.
45. Masad.
46. Murkut.
47. Berkun.
48. Kuralas.
49. Uglan.
50. Kari.
51. Arab.
52. Ulechi.
53. Julegan.
54. Kishlik.
55. Ghedoi.
56. Turkmen.
57. Durmen.
58. Tabin.
59. Tama.
60. Rindan.
61. Mumin.
62. Uishun.
63. Beroi.
64. Hafiz.
65. Kirghiz.
66. Uiruchi.
67. Juiret.
68. Buzachi.
69. Sihtiyan.
70. Betash.
71. Yagrini.
72. Shuldur.
73. Tumai.
74. Tleu.
75. Kir-dar.
76. Kirkin.
77.
78. Uglan.
79. Gurlet.
80. Iglan.
81. Chilkes.
82. Uigur.
83. Aghir.
84. Yabu.
85. Narghil.
86. Yuzak.
87. Kahet.
88. Nachar.
89. Kujalik.
90 Buzan.
91. Shirin.
92. Bakhrin.
93. Tume.
94. Nikuz.
95. Mugul.
96. Kayaan.
97. Tatar.

Of these tribes twenty-eight are in the Khanat of Bokhara, viz:—

1. The Manghit, who encamp at different places, partly in the neighbourhood of Karshi, and partly near Bokhara itself. Many of them, especially the elder branches, have established themselves in both those towns.

2. The Khitay, who encamp between Bokhara and Kermine.

3. The Naimen, dwelling near Ziyan-ed-din, to the chief of which place, in litigious cases they apply in the first instance.

4. The Kipchak, wandering between Katta-Kurghan and Samarkand.

5. The Sarai, who encamp close to the road leading from Samarkand to Karshi.

6. The Kungrad, part of which tribe is settled in Karshi, whilst another part encamps between that city and the mountains of Shehr-i-Sebz.

7. The Turkmen, who encamp on the Amu-Dariya, while others dwell in villages on the banks of the same river.

8. The Arabet who encamp between Karshi and Bokhara.

9. The Buzachi, are found near Buzachi, on the road from Karshi to Bokhara.

10. The Durmen, who lead a settled life in Khijduane and its environs.

11. The Yabu, who partly lead a settled life in the southern portion of the Tamen of Bokhara, or partly a wandering, together with the tribes of Khitay Naimen, in Miyan-kale.

12. The Jid, and 13, the Juyut, which in part lead a settled life on the banks of the Amu-Dariya, and in part a wandering, or with the Turkmens.

14. The Byatash, who all lead a settled life in the Tumen of Bokhara.

15. The Byagrin, who encamp in Miyan-kale, mixed with other tribes.

16. Kir.
17. Ung.
18. Ungachit.
19. Kalmak.
20. Kataghan.
21. Galiachi.
22. Uzoi.
23. Chiljuyut.
24. Kireit.
25. Gurlyat.
26. Yuikhun.
27. Uighur.
28. Tatar.

The Chagatai, are disseminated among other tribes.

2. The Aimak, leading a sedentary life at Bokhara.

3. The Karlik, who live in like manner at Karsh.

4. The Kauchin, who encamp in the neighbourhood of Karshi. And lastly,

5. The Kureme, in the Khanat are not enumerated in the table of that race and it is probable, that these form sub-divisions of one of the sections of the abovementioned Uzbek stems.

The oldest branch of the Uzbeks in Bokhara is that of *Manghit*, and it is out of one of its branches—called *Tuk*, that the reigning dynasty proceeds. In their exterior, the Uzbek remind us strongly of the Moghul race, except that they have larger eyes, and are somewhat handsomer; they are generally middle-sized men; the colour of their beards varies between a shade of red and dark auburn, whilst few are found with black hair. Their dress is very plain, consisting chiefly of *khalatu*, or flowing dresses of *aledja.* According to their mode of living, the Uzbeks may be classed under three heads: 1, sedentary Uzbek; 2, such as are engaged in agriculture, although continuing to lead a camp life; and, 3, such as are essentially nomadic. The wandering Uzbek live like the Kirghiz in *kibitki*, Plural of *Kibitka*, which are, however, rather lower. The external felt is usually of a black, or dark grey colour, but the interior is more tastefully ornamented than the tents of the latter, for the Uzbeks hang small carpets of home manufacture, along the sides, and though the work be coarse, and the colours generally of a sombre hue, dark red or brick colour in particular, their presence sets off the tent to advantage, and gives it an appearance of cleanliness. Their meals are very monotonous, the staple article being constantly mutton. *Kumis* (fermented mares' milk) is only drunk by those who keep large herds of horses; in Mian-kale, for instance, the absence of such herds in the greater part of the Uzbek encampments was a matter of no small surprise. Their chief occupation consists in breeding flocks. Children all but naked are seen driving the sheep round the aul, while the chief sits listlessly in his kibitka, leaving all the household affairs to the care and management of the women, who do not differ in dress from the Kirghiz women. In the interior of the aul half naked children may be seen romping about and fighting with dogs.

Bokhara has a considerable number of Persians especially Persian captives, who are brought thither in small parties. The greater majority, however, of this people were transplanted from Merv, in the reign of Amir Seyid, when that city fell under his sway. With a view of weakening it, and thereby ensure his own safety, he ordered 40,000 families to be transported from Merv to the neighbourhood of Samarkand. It is from them the Persians of Bokhara chiefly descend.

The Persian population are easily distinguished by the regularity of their features, and their bushy black hair. They profess outwardly the Sunni faith, though in their hearts they remain Shiah, cordially hating, therefore, the Bokharians. The Jughi, Mezeng, and Liuli, are classed among mussulmans in Bokhara, but they seem to be similar to gypsies, their women go unveiled, and the men are careless in their religious duties. Numbers of them are established at Bokhara, and other towns, as medical men and telling fortunes and horse-dealings. Such as lead a wandering life, encamp in tents of a coarse cotton stuff called "bez." They have permission to halt near all the lakes and rivers of the Khanat, whenever those places are not previously occupied by Uzbeks; in consequence of which a great number of them are dispersed along the banks of the Zar-Afshan, near Samarkand, while others encamp in the neighbourhood of Karakul. Bokhara and Samarkand are the centres of mahomedan theology. There are no mahomedans so strict as the inhabitants of Bokhara, but it is the most shameless sink of iniquity in the East. Its houses are built of mud and wood. The rooms have no furniture and glass for windows is unknown, oiled paper being used in lieu. Broad cloth is little used, only cotton cloths, *alaja*, and stiff loose silken garments. Womens' clothes are of a dark colour often blue and fit tightly, with a horse hair veil. They have a monastery at Bokhara, dedicated to the famous dervesh Mulana Jalal-ud-din, who, centuries ago went from Bokhara to Iconium.

BOKHARA TOWN is in L. 39° 27' N. L. 80° 19' E. It is surrounded by desert, but is watered by the little river Wafkan, which flows between forests of fruit trees and gardens. It has eleven gates, and a circumference of fifteen English miles; three hundred and sixty mosques, twenty-two caravansaries, many baths and bazaars; and the old place called Ark, built by Arslan Khan one thousand years ago, and has about one hundred splendid colleges. The houses have neither roofs nor windows. The population amounts to one hundred and eighty thousand, composed of Tajik, Nogay, Affghan, Mervee, Usbeck, and ten thousand Jews, who are dyers and silk traders, and must wear a small cap, and girdle around their waist, to be distinguished from the mahomedans. There are several thousand slaves. There are about three hundred merchants from Sind and many dervishes. Whole streets contain nothing but shops and magazines for merchants from all the parts of Turkistan, Cashgar, Hindustan, and Russia. There are, all around, numbers of country houses, with gardens.

Bokhara was visited in the early part of the 19th Century, by Sir Alexander Burnes, Dr. Joseph Wolff and Colonel Stoddart and Captain Conolly the two last fell victims to the fanaticism of the people. It was taken by Russia in 1868. Bokhara and Turkistan send out raw silk of various kinds, called "chilla jaidar," "vardanzwi," "lab-i-abi," "churkhi," from Khokan; Balkh, Kunduz, Akcha, Shibarghan, &c, Bokhara gold coins, "budki" and "tila"—*Wolff's Bokhara, Vol. II. p. 3 to 4. Baron Clement de Bode Bokhara. Vigne, Personal Narrative; General Edward Ferrier's Journey; Max Muller; Mr. Powell's Hand-book.* See Jews. Kalmuck. Kara-kul. Kazzak. Khalif. Khiva, Khanat. Khulm, Kitabi. Tajik. Tartar.

BOKHARA CLOVER, Melilotus, a genus of plants of the Nat. Order. Fabaceæ, several species of which native and foreign grow in India, M. arvensis, Italica, leucanthus, officinalis, parviflora and sulcata. M. arborea, is the Bokhara clover and affords two or three cuttings in a season; most of them are grown as clover.

BOKHARA LITTLE, a name of Chinese Tartary or Eastern Toorkistan.

BOKHARI, Muslim, Abu Daud, Tirmidzi, Nasar, Ibn Maja or Ibn Khozeima are the six great collectors of the traditions of Mahomed.

BOKHARIAN HAKIM. See Gia i-Khatai.

BOKHDI. The third settlement of the journeying Arians was in Bokhdi. It (iv. v. 7,) is stated, that the *fourth* best land was the fortunate Bokhdi, with the lofty banner: here Ahriman created buzzing insects and poisonous plants. Bokhdi is certainly Bactria though Burnouf had doubts about it, the land of the Bactrians. The "tall plumes" indicate the imperial banner (mentioned also by Firdousi,) and refer, consequently, to the time when Bactria was the seat of empire. Up to this time nothing is said by the Aryans about Media, though she conquered Babylon in B. C. 2234. See Arians.

BOKHEE OR UTIMOOKTA, Duk. Hiptage madablota.

BOKKENA, Tel. Zapania nodiflora, *Lam.* —Lippia nod. *Rich.—Rheede*, x. 47.

BOKKADI, Tel. Ehretia, sp.

BOKKUDU. Tel. Hydrocotyle Asiatica, *R.* ii. 88,—*Rheede*, x. 46.

BOKLA, Hind. Antennaria contorta.

BOK-MAI-ZA, Burm. Kydia calycina.

BOKUR, Mar. Cordia Rothii.

BOL, Hind. also Bola, also Beola, Balsamodendron myrrha; Nees ab Esen. also myrrh; its gum resin.

BOLA, Beng. Paritium tiliaceum.—*St. Hil.* Hibiscus tiliaceus.

BOLAN PASS, on the borders of Saharawan, leads from the Dasht-i-be-dow-lutto-Dadur, and is the great route of communication between the Western Affghan provinces and the countries opening on the Indus. It is a continuous succession of ravines and gorges. The air in the lower part of the pass is in summer oppressively hot and unhealthy. It extends from 29° 30'; 67° 40'; to lat. 29° 52', long. 67° 4'=55 m.; is ½ m. wide at entrance. The entrance is 800 ft.; Ab-i goom, 2,540; crest, 5793 ft. Average ascent, 90 ft. per mile.

The Bolan with the Mulloh pass, far to the south, are the only level routes intersecting the great chain of mountains, defining, on the east, the low countries of Kach Gandava and the valley of the Indus; while westward, it supports the elevated regions of Kalat and Saharawan. There are many other passes over the chain, but all of them from the east have a steep and difficult ascent, and conduct to the brink of the plateau, or table-lands. Such are the passes of Takari and Naghow, between the Bolan and Mulloh routes, and there are others to the north of the Bolan. This pass is no less important, as occurring in the direct line of communication between Sind and the neighbouring countries with Kandahar and Khorasan. It also constitutes, in this direction, the boundary between the Sard Seir and garm Seir, or the cold and hot countries. The natives here affirm, that all below the pass is Hind, and that all above it is Khorasan. This distinction is in great measure warranted, not only because the pass separates very different races from each other, speaking various dialects, but that it marks the line of a complete change of climate, and natural productions.—*Masson's Journeys, Vol I. p.* 338. See Kabul; Kandahar; Kelat.

BOLAN RIVER is about 70 miles long in the Sir-i-Bolan Pass, lat 29° 51', lon. 67° 8' is 4,494 ft. above the sea. It is remarkably sinuous, but runs generally south-easterly; from a junction with the Nari River. It is liable to inundation; and as its bed, in some parts, occupies the whole breadth of the ravine, travellers are frequently overtaken by the torrent. Falls 3,751 ft. in 54 m. from source to Dadur.

BOLBOPHYLLUM. A genus of plants belonging to the Natural Order Orchiaceæ of which several species B. auricomum, Careyanum, flexuosum, fuscesceuss Jenkensonii, serpens, and sunipia, occur in Nepal, the Khassya Hills, Burmah and Tenasserim. Dr. Mason says perhaps the most highly valued of the orchid order among the Burmese and Karens, is the sweet scented bolbophyllum, which Karen youths wear in the lobes of the ear, and maidens in their hair. It abounds in almost every part of the jungles, throwing down delicate straw-coloured racemes over the rough grey bark of old lager strœmia trees emblems of childhood in the arms of age.—*Mason.*

BOLBOPHYLLUM CAREYANUM, a common orchid in the vicinity of Maulmain, easily recognized by a long leaf at the apex of a false bulb, and by its small purplish flower. —*Mason.*

BOLE ARMENIAN.

Hajr-Armeni... ...	...Ar.	Tannam Poo........	Jav.
Tin-armenie?...... ...	„	Harmzi... ...	...Panjab.
Berlin Red	Eng.	Harmuchi..........	„
English „	„	Gurukatta	...Sans.
Bole de armenie	Fr.	Sime kavikallu ...	Tam.
Ghil-armenie,	Hind Pers.	Sima kavi rai,......	Tel.
Gheru mitti........	„		

An earthy mineral of a fine red colour, one of the hydrous silicates of alumina. It occurs in masses in various parts of India. That found in the island of Lemnos is called Lemnian earth, Armenian Bole is much used as a tooth powder; is in use in India, amongst native practitioners, as an astringent, and as a pigment is used by the Javanese when they wish to become thin, largely employed by fraudulent dealers to colour articles of food, &c. to adulterate Anchovy Paste, Potted Shrimps, Potted Herrings, Yarmouth bloaters, Ham, Westphalian Ham; Potted beef, Hamburgh Beef, Tomato sauce, Essence of Lobsters, and Essence of Shrimps. It is employed in Native painting and gilding. In many countries, Bengal and South America especially, this and other unctuous earths are eaten freely by pregnant women to allay the craving for food so common in that state. In times of scarcity it has been used by both sexes as a mechanical substitute for proper food. It consists of alumina, silica, magnesia, and oxide of iron. It is brought from the Persian Gulf, but it also occurs of fine quality in the Rajmahl hills, where it is termed *Geru mittee* also from Mysore, Bellary and other localities. Reduced to very fine powder it is used as an absorbent application sprinkled over ulcers or other raw surfaces —*O'Shaughnessy, page* 693.

BOLEOPHTHALMUS BODDÆRTII. The leaping fish, of the seas of the E. Archipelago. These salamandrine looking creatures are scarcely distinguishable from the mud on which they lie, but make a series of leaps on being alarmed. They are 3 or 4 in. long, wedge-shaped, with flat pointed tails, head and prominent eyes. They are called, by sailors, jumping Johnnies. They leap by means of their ventral fins.—*Collingwood.*

BOLE DE ARMENIE, Fr. Bole Armenian.

BOLETUS DESTRUCTOR the fungus known as dry rot. B. igniarius, dried and sliced is the amadou or German tinder.—*Eng. Cyc.* See Fungi.

BOLINTRABOLUM, Tel. Myrrh.

BOL KA GOND, and Bija bol, are names given in Ajmere to a dark reddish yellow opaque gum resin like myrrh (appears to be true myrrh) imported via Bombay. The natives there believe that by eating it or even rubbing it in the teeth, they will become loose and fall out: it is considered a warm medicine, is given to children in enlarged abdomen, mixed with musabbur (aloes) as a deobstruent, and is also used in making native ink: one seer costs eleven annas.—*Gen. Med. Top. p.* 129.

BOLKOOKREE, Beng. Adolia castinacarpa.

BOLO CHAPTIS, (Buch.) Corvinus bola. (McClell.) A species of Indian whiting that furnishes isinglass and which Mr. O'Riley sent up to Calcutta from Amherst. Dr. M'Clelland wrote that "it belongs to the genus corvinus, closely allied to *C. niger*, but of monstrous dimensions compared with the European species." This is the fish, the jawbone of which is described as "Boalee.—*Mason.*

BOLLONG. See Karang Bollong.

BOLONG WATU TUMPANG. See Karang Bollang.

BOLOR MOUNTAINS,—the mountains of Balti extend for 300 miles, from the sources of the Gilgit and Yasan rivers, in 73° to the 77° E. L., the source of the Nubra river. Bolor produces much gold. The higher mountain range abounds in rock-crystal, which is consequently called the Bilor-stone or Rock crystal. See Badakshan; Himalaya; India; Kara-koram Mountains; Tibet.

BOLSARI-KA PHUL, Duk. Flower of Mimusops elengi.

BOLUNGEE and BANSO, Tel. ? Uria? Two bamboos of Ganjam and Gumsur, extreme height 25 feet, circumference ⅙ foot. They are not common.—*Captain Macdonald.*

BOL SIAH, Pers. Aloes; Aloe litoralis. *Kœnig.*

BOLWAN, amongst the Mahrattas, the ceremony of conducting a bride to her husband's house: also dismissal of the bridegroom's friends and attendants. Also, the ceremony of propitiating the Bhuta or spirits of deceased who have entered a village, inducing them to leave the village and conducting them across the borders with music and a procession.—*Wilson.*

BOMBACEÆ. A group of plants, of which several genera, the Adansonia, or baobab, the Bombax, Cullenia; Durio and Eriodendron grow in India. Bombax pentandrum, B. heterophyllum and Cochlospermum gossypium, all have a soft down, attached to the seeds, which is collected for stuffing pillows. At the Madras Exhibition of 1857, a very powerful bast was exhibited by Mr. Jaffrey, from the Eriodendron anfractuosum. Some authors regard this group as a section of the Sterculiaceæ.

BOMBARECK. A rock which British sailors so call. It is the *Koh-i-mubarak* also Ras mubarak, the fortunate or auspicious mountain or head land of the Arabs.

BOMBAX, *Species.* That-Pan, Burm. A tree of Moulmein. Wood not known.—*Cal. Cat. Ex.* 1862.

BOMBAX, *Species.*

Burrul Mara,	Can.	Kanta Saeer.	Mahr.

A tree in Canara and Sunda, most common below, grows to a great size. Hollowed for canoes: planks sought after for light boxes.—*Dr. Gibson.*

BOMBAX CEIBA.—*Linn.* A tree of Jamaica introduced into India: in South America and the West Indies, is used for canoes. It is common at Canton, and the fleshy petals of the flowers are sometimes prepared as food. It is said to be a large tree, of the Burmese in India

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vels in South
. Riddell, Wil-
. 284.

LABARICUM, *D C.*; *W.*

ombax heptaphyllum.—*Cav.*
Salmalia Malabarica, *Schott. & Endl.*
Gossampinus rubra, *Ham.*

Rakto-simal. BENG.	Mulu-elavu, MALEAL.
Rakto-shimal. „	Simbal. PERS.
Rakta-shimlu. „	Simal. SANS.
La-i. BURM.	Kattu imbal. SINGH.
Lepan. „	Mal-ailas marum. TAM.
Red Cotton Tree. ENG.	Mull elava marum. „
Rakta-simal. HIND.	Pula mula elavu. „
Simal. „	Buruga manu. TEL.
Sair. MAHR.	Mula-buraka manu. „
Sairi. „	Buro. URIA
Kanta Sair. „	Its gum, Moochie Ras.
Mul-elavu. MALEAL.	Its root, safed Moosli.

This large and stately tree grows in most parts of Southern India; it reaches a great size in the Bombay Presidency, where, both on the coast and inland, it is one of the most common trees, and there the planks are extensively used in making the light packing boxes used in the export of bulky goods from Bombay and other places; also for fishermen's floats when the Adansonia is not at hand. The Red Cotton tree is common throughout Southern India, is abundant in the plains of British Burmah, where its light and loose grained wood is used for coffins. A cubic foot weighs lbs. 28. When the trees grow large, the stem spreads out towards the base, at intervals, into buttress like projections. In spring, huge Magnolia shaped scarlet blosoms cover the trees, and in some places the young flower buds are cooked and eaten. The cotton is used for stuffing cushions and pillows. In a full grown tree on good soil the average length of the trunk to the first branch is 60 feet, and average girth measured at 6 feet from the ground is 15 feet. It yields the *Moochee-ras* resin, and its roots constitute the *Safed Moosli* of the bazaars, which, powdered, forms a thick mucilage with cold water, and anwsers admirably as a nutritious demulcent for convalescent persons.—*Drs. Wight, Brandis, Gibson, O'Shaughnessy. Capt. Beddome.*

BOMBAY, a town on a series of islands on the western side of the peninsula of India, in Lat. 18° 53′ 5″ N. Long. 72° 49′ East. It is the capital of the Bombay presidency, and in 1864 contained a population, in the island, of 816,562 in the following propotions :

Hindoos ...	491,540	Lingaet ...	1,596
Brahmin ...	30,604	Buddhist or Jain	8,021
Bhatia ...	21,771	Non Arians ...	32,434
Mahomedan	145,880	Jew	2,872
Negro-African	2,074	Parsee	49,201
European ...	8,415	Chinese	358
Indo European	1,891		
Native Christian	19,908	Total...	8,16,562

In the spacious harbour formed by the islands of Caranja, Colaba, Bombay, Salsette, and the continent, several smaller rocky islands are scattered, bearing different names. Of these are Bombay, Elephanta, and a little island close to the latter that the British call Butcher Island. Its hindu name is Depa-devi, or the Island of the gods, or holy Island : it is low, less than a mile, from Elephanta, in the direction of Salsette. Bombay harbour is very capacious, being from N. to S. 12 or 14 miles, with a general width of from 4 to 6 miles, its shores are irregularly indented by bays and inlets. Bombay island lies north of Old Woman Island to which it is joined. Bombay Island is about 8 miles long from N. to S. and about 3 miles broad. The flag-staff on the S. E. bastion of the fort, is in Lat. 18° 55′ 48″ N. and Long. 72° 57′ 40″ E. Bombay is commonly called an island, but it is built on a cluster of islands which are connected by causeways with one another and with the main land, and form a peninsula running north and south, and terminating in a narrow point of land at the extremity of Colaba. The Bombay Group, indeed consists of fifteen or twenty islands in all ; the island of Bassein, about thirty miles to the northward of that which gives the cluster its name ; Dravee ; and Versova, just off the shore of Salsette ; Salsette, by much the largest of them all ; Trombay, conspicuous for the mountain called Neat's Tongue, which attains the altitude of 1,000 feet ; Bombay itself, united on the northward to Trombay and Salsette, as these are united to each other by bridges and embankments, and, to the southward, Old Woman's Island ; Colaba ; and Henery and Kenery ; with little rocks, and islets of lesser note and name. Bombay island formed part of the dower given in 1662 to Charles II. of England with his queen, and Charles in 1661, sent, James Ley, Earl of Marlborough, a most experienced sailor with a strong fleet, to receive it from the Portuguese.—(*Tennants' Hindustan, Vol.* 1, *page* 91.)

The island has an area of 18·62 square miles and the land population are 42,104 to the square mile. With the exception of Malabar and Worlee Hills on the western, and Chinch-poogly hills on the Eastern, shore, the land in Bombay is very flat, and a very large area is still below the level of the sea at high water and is annually flooded during the rainy season. The sea breeze is felt through the island ; the harbour extends along the eastern face and is a very fine one, and it is along this face of the island that are the most densely crowded parts. Owing to the value of land in that quarter, much new land has been recovered from the sea by the Elphinstone land Company. The island of Bombay is composed of five or six bands of trap rock, chiefly greenstone and amygdaloid, separated by beds that have the appearance of being of sedimentary origin, though there is no actual proof of the fact. The Bhattya, the Parsee, the Mahomedan from Sindh and Persia and Arabia, and Europeans are all largely engaged in commerce, but some of the richest of the hindu merchants reside at Jeypore in Rajputanah, at Indore, in Malwa and at Hyderabad in the Dekhan. The chief articles of commerce are cottons, opium, cereals.—*Carter. Clarke. Ann. Ind. Ad.*

BOMBAY PRESIDENCY. India, South of the Vindhya range and of the Nerbudda, is termed the Peninsula, by the British, but the hindoos and mahomedans call it the Dekhan or South. At its broadest part, in the twenty-second degree of north latitude, it is twelve hundred miles across, but it tapers away towards the south and in latitude 7° 40′ north ends in the Promontory of Cape Comorin, the Indian Ocean washing its western and the Bay of Bengal its eastern shores. A range of mountains runs along each side of this Peninsula, parallel with the coast, leaving between them and the sea in their whole length from north to south, a belt of low level land from twenty to fifty miles in breadth. These two mountain ranges are termed the Eastern Ghauts, and the Syhadri mountains or Western Ghauts, and have an average elevation of 1,200 to 3,000 feet respectively, but solitary moun tains and spurs from the western range attai an elevation of 6,000 and 8,000 feet abov the level of sea. The Western Ghauts, on th side next the sea, are scarped and at place sink precipitously 2,000 feet to the level bel below. The Eastern Ghauts do not fall s abruptly, but both ranges are covered wi thick impenetrable forests through which a fe passes lead from the coast into the interior o the country which is upraised by the mountains into table lands from 1,200 to 3,000 feet above the sea, the general declivity of the land being from west to east. This portion of India is divided into the two presidencies of Bombay and Madras, their armies being distributed over the whole of the Dekhan, and branching out into some of the adjoining or recently conquered provinces : thus, the Bombay Presidency has its troops in Guzerat, Cutch and Sind on the north-west of the Peninsula, and the Madras troops hold British Burmah, Penang, Malacca, Singapore, Hong-Kong and sometimes Aden. The Bombay Presidency, with Sindh and Aden, and including Bombay island, may be reckoned to have 23 districts, with an area of 140,827¼ square miles and a population of 13,533,912. The population, however, varies greatly. In the Ahmednuggur Collectorate, there are 111 to the square mile, but in the Thur and Parkur district only nine. The territories occupied by the army of the Bombay Presidency, like other parts of India, are separated by its mountains, and deserts into natural divisions. The province in the delta along the line of the Indus forms one military command, that of Sind and Beloochistan ; the province of Guzerat, Cutch, and along the Runn of Cutch by the Thur desert are held by the northern division of the army, and the remainder of the presidency on the table land in the provinces of Aurungabad and Beejapore, is arranged into two portions termed the Poona and the Southern districts, the latter with its head quarters at Belgaum ; but to each of these two divisions there is likewise allotted the command of the immediately adjoining portions of the level-land in the Concan. The Belgaum Division of the army, in the province of Bejapore, is from 2,500 to 3,000 feet above the sea, level but has had soldiers on the sea shore, at Kolapoor, Sawuntwarie, Malwan, Vingorla and Rutnagherry. The Poona Division is similar to that of Belgaum in the distribution of its force ; of the soldiers in the command nearly the whole of them are in the province of Aurungabad from 1,700 to 2,300 feet above the level of the sea. In the table lands, about the ghauts, the climate is dry and the rains and temperature moderate, the range of the thermometer being from 55° to 92° and the troops, European and Native, in the Poona Division particularly, enjoy comparatively good health. The principal stations for the European troops of the Bombay Presidency have latterly been Bombay, Belgaum, Poona, Ahmednuggur, and Deesa. Kurachee in Sind having more lately been also added. The barracks in Bombay are only a few feet above the level of the sea ; the annual fall of rain averages seventy inches. The mean temperature is from 76° to 88°, and the rock is basalt and greenstone. The low land in the Concan and Guzerat is traversed by many rivers and smaller streams running to the sea, and is indented by numerous creeks and channels of the ocean. The cold weather is clear and bracing, but the hot season of April and May is succeeded by the deluging rains of the south-west monsoon, when 150 inches fall from June to September and render much of the already humid lands impassable swamps; the atmosphere is then very damp, and the sensation experienced is similar to that in Calcutta at the same period of the year. The northern division of the Bombay army, with its head quarters at Ahmedabad, holds Guzerat and Cutch and stretches its posts around the Runn or salt marsh, and over the Thur desert, north of the Runn, as far as latitude 24° north. The low land of Guzerat resembles that of the Concan, Canara, the Carnatic and Orissa, but the interior of that province is mountainous. The Runn of Cutch during the monsoon is a shallow brackish lake from four to sixty miles broad, but it dries up during the hot season and is then covered with grass. The climate of the outposts is arid and in the hot season stimulates to irritability. The thermometer rises to 100° in the shade. The other part of Cutch is an irregularly hilly tract completely isolated by the Runn and the sea. On the southern coast the country is a dead flat covered with rich soil, but the northern part has three distinct ranges of hills running from east to west. The central of these ranges consists of sandstone, beds of coal, limestone, and slate clay; the hills north of it consist of marine remains, and those on the south and all the face of the country near them, are covered with volcanic matter. Cutch is 165 miles long and from 15 to 52 miles broad and, not including Runn, has an area of 6,100 square miles. The river Indus, rising in Thibet at an elevation of 18,000 feet above the sea, about latitude 31° 20' and longitude 81° 15', at the north of the Kailas Mountain, which is estimated to have a height of 23,000 feet, runs in a westerly course on the north east of Cashmere and after receiving the Cabool river close above Attock, in latitude 34° north, it turns to the south and finally issues from the mountains below Karabagh in 32° 57' of north latitude; and, further south, a little below Mittenkote in 28° 55' of north latitude, when four hundred and seventy miles from the sea, it receives by the Punjnud river the whole of the waters of the Punjab. The country through which the Indus passes in the remainder of its course, from the confluence of that river to the ocean, receives the name of Sind, which has been attached to Bombay since 1838 and has had a force varying from 10,000 to 20,000 strong distributed through it, the principal stations being Kurrachee, Shikarpore, Hydrabad and Sukkur: When nearly 100 miles from the ocean, about six miles below Tatta. the Indus begins to throw off branches and in Latitude 23° north it disembogues into the ocean by eleven mouths and presents a sea face of 125 miles in extent. The Delta of the Indus is a rich soil overgrown with tamarisk bushes. The country on the west bank of the river is diversified by mountain and plain, but on the east bank there is a sandy desert, with a few bushes and sandy hillocks, that ultimately joins the desert tract of Rajpootanah. It receives the rains of the S. W. monsoon and, in this season, the Indus overflows its banks and inundates the adjacent low country. As it subsides in October, it leaves a quantity of slimy matter to which much of the unhealthiness of the country has been attributed; it may, as probably, however, be owing to the great vicissitudes experienced in this climate for the heat in the hot season is intense rising to 160° in the open air, the rains are abundant and the cold of winter is keen and biting, the thermometer sinking to 46°. The valley of the Indus in the middle of its course is composed of sandstone rocks. A great part of the Dekhan of the Bombay presidency consists of trap rocks but to the south, at Belgaum, shales and statified rocks occur. An earthquake occurred at Bombay on the 8th December 1857. Mount Aboo is subject to frequent shocks of earthquakes.

The Arabian promontory of Aden, is attached to the Bombay Presidency. Since it was purchased from the Arabs it has always had a considerable force cantoned near the crater of an extinct volcano at the base of a hill 1,800 feet high. It is merely a small volcanic promontory jutting out into the sea, and connected with the Arabian peninsula by a narrow neck of land, across which a low wall has been drawn from shore to shore of the two bays which nearly surround the promontory, the neck of land being only a mile in breadth. The climate is very hot; very little rain falls and hitherto both for Europeans and Natives it has been unhealthy. The force usually consists of 800 European and an equal number of Native soldiers, and the inhabitants and followers amount to 20,000.

There are several feudatory chiefs and princes at Guzerat, in Cutch, Kolapore, and a larger number of feudatories of lesser rank in the Southern Mahratta Country.

BOMBAY DUCK, Eng

Bummalo of Bengal.	Bombay Duck of India.
Bamiah of Bombay.	Saurus nehereus B. Ham.

The upper part of its head, back and sides light grey or dust-coloured, hemi-transparent like gelatine, with minute star-like black and brownish dots; anterior part of abdomen pale silvery bluish; rest whitish; cheeks and opercles pale silvery bluish, dotted like the body; fins transparent, coloured like the body but more closely dotted, so as to appear pale blackish. Inhabits Sea of Malayan Peninsula and Islands, Chusan, Woosung, Canton, Madura, Java, Sumatra, Tenasserim, Mouths of the Ganges, Vizagapatam, Bay of Bengal, Bombay, Malabar. Total length: 11 inch. The fish is of most voracious habits, gorging itself with its own species and other fishes of nearly its own size, and Crustacea (shrimps). It is frequently taken with the stomach and the jaws expanded with prey. is very short-lived, and the whole body becomes at certain seasons brilliantly phosphorescent. In the Straits of Malacca it is at all times very numerous, although less so than it is at the Sandheads or in the mouths of the Ganges. Although very rich, it is a great delicacy immediately after it is taken. Salted and dried it is also highly valued, and in this state it occurs in commerce under the denomination of "*Bombay Ducks*," and "*Bummaloh*' in Bengal, large quantities of which are annually exported from Bombay and the Malabar coast to all parts of India.

BOMBAY BLACKWOOD. Dalbergia sissoo.

BOMBAY BOXES are principally ladies' work-boxes. The outside is of ivory, of elegant workmanship and curiously inlaid; the internal part of sandal wood. See Bombay or Mooltan Work.

BOMBAY MARINE, afterwards designated the Bombay Navy and later the Indian Navy. Its proportions and equipment were second to none afloat in Eastern waters, their services mostly lay in the Red Sea, and Persian Gulf.—*Thurlow*. See Indian Navy.

BOMBAY, OR MOOLTAN, WORK. The inlaid work of ivory, white and dyed, of ebony or other coloured woods, for which Bombay has long been famous, is said to have been introduced from the Punjaub, and is still familiarly known as Mooltan work. It consists chiefly of paper-cutters, workboxes, writing-desks, and similar articles. The effect of a large mass of it is very poor—the pattern is too fine for being distinguishable, and it fills the eye with a general greyish tint: in articles which do not present more than a foot or two of surface, it is very pleasing. The ground of the inlaid pattern is generally scented cedar or sandalwood, the joinery exhibited in which is very indifferent. The inlaying material is prepared as follows: the wood or ivory is cut into slips of a lozenge or triangular section as may be required—by a long thin-bladed, fine-toothed saw. The tin is drawn through betwixt a pair of grooved rollers like those used for laminating or extending iron—they work together by teeth at the extremity ‹ one or two draws through extends the metal into the length desired. The wires and splints are nearly all either lozenge-shaped or triangular, the triangles being equilateral, the lozenges composed of two equilateral triangles. A pattern being fixed on, the splints are built up into pieces, about eighteen inches long, and from a quarter to two inches in thickness, firmly glued together. In the case of borders, or continuous pieces of work, the rods are glued together betwixt pieces of ivory, or wood and ivory, alternately, so as to form straight lines on each side of the pattern. When about to be used they are sawn across, the thickness of a sixpence, and arranged in a box divided into compartments, something like a printer's case. They are then picked up in succession, and applied with glue to the box or other article to be inlaid. The following is a list of the prices of some of the most common articles to be met with in the bazar:—

	Rs. Rs.		Rs. Rs.
Work Boxes...	8 to 80	Paper Cutters.	1 to 3
Writing Desks.	15 to 60	Baskets, open.	12 to 15
Portfolios ...	10 to 20	Table Trays...	10 to 15
Watch Stands.	8 to 10	Pin Cushions.	3 to 4
Do. Cases...	4 to 6	Ink Stands ...	10 to 15
Envelope Cases.	15 to 25	Jewel Boxes, of Sandal Wood.	20 to 50
Baskets... ...	6 to 25	Paper Stands, of Sandal Wood.	5 to 10
Cheroot Cases.	3 to 4		
Card Cases ...	2 to 5		
Paper Weights.	3 to 4		

BOMBAY BLACKWOOD or Rosewood Furniture. In the Bombay Furniture manufacture, blackwood is the material almost always employed—it is brought from Cochin and other places lower down on the Malabar Coast. It sells for about the same price as Teak—it is a brittle, open-grained wood not at all a favorite with English cabinet-makers, and the highest prices ever realised for it in the state of log were, we believe, about £10 per ton. The pattern meant to be carved is first carefully drawn on paper—then on the wood. The tools used are the native adze, chisel, and drill—the centre-bit and other tools of English pattern, from which so much assistance might be obtained, are never resorted to. The general design of the various pieces of furniture is mostly excellent, the patterns elegant and tasteful: the finish for the most part is poor,—the joinery always execrable. Concealed joints never seem to be thought of—pins which might be kept out of view are made as conspicuous as possible, and great clumsy screw nails, which might without trouble be hid, are fully exposed to view. Every house of the Europeans in Bombay is furnished with it; and considerable quantities of blackwood furniture are sent to England annually by residents in Bombay for their own after use, or as presents to friends: it is packed up without being jointed or polished, and is put together by English workmen, who think, we believe, but lightly of its merits. The principal furniture dealers in Bombay in 1850, were Parsees: he workmen they employ are mostly from Guzerat. There were then six principal furniture shops in Bombay. They keep from five to ten workmen each, and probably turn out Rs. 25,000 to Rs. 30,000 worth of furniture amongst them annually. The following are the prices of the principal articles manufactured :—

	Rs.		Rs.
Round Table, 3 to 8 feet broad ...	30 to 80	Each, Low Chairs	25 to 50
Pair of Round Tea-poys, 2 feet broad.	16 to 25	,, Drawing Room Chairs with damask cushions	5 to 10
Pair of Card Tables	50 to 60	,, Dressing Tables	8 to 75
,, Flower Stands	50 to 100	,, Side Boards ...	35 to 70
,, Pier Tables...	100 to 150	,, Screens... ...	20 to 75
,, Sofa Tables...	60 to 90	,, Wardrobes ..	45 to 75
,, Conversation Sofas...	100 to 150	,, Clothes, Presses	25 to 40
,, Sofa Couches	140 to 200	,, Bedsteads .	50 to 20
,, Bed Room Couches.. ...	40 to 60	,, Writing Tables,	50 to 100
,, Music Book Cases ...	80 to 140	,, Chiffoniers, ..	60 to 80
,, ,, Stands	30 to 50	,, Chests of Drawers	25 to 50
Each, Easy Chairs	10 to 50	,, Dining Table in pieces	40 to 50

BOMBAZINE. A fabric of worsted and silk, the warp being of silk and the weft or shoot of worsted.—*Tom.*

BOMBOLOES. See Camphor.

BOMBYCES, a tribe of Lepidopterous Insects, which, in their metamorphosis, construct a covering or case generally called a cocoon. Each tribe of the Bombyces produces a cocoon of a peculiar form. They are said to spin or weave their cocoon. In their scientific classification, the Bombyces are arranged into eight stirpes or types, according to the forms of their larvæ, and those known to occur in India, have been classed into 105 genera and 272 species. The most important of these, in a social point of view, are the silk producing moths, belonging to the genera bombyx; cricula; salassa; antheræa, actias, saturnia and attacus.

1. *Bombyx mori,*—LINN., the common, domestic, or chinese silk worm moth, the Sericaria mori of Blanchard and the "pat" of Bengal, is a native of China, but has been domesticated there and in Siam, India, Persia, France and Italy. The usual tradition in China is that this was discovered B. C. 2640, in the reign of the emperor Hwang-Te, by his queen. The culture now flourishes principally about Nankin in latitude 32° N. but in India, into which it was early introduced, none of the silk filatures extend beyond 26° N. They have been found in a wild state in Kent in England, on shrubs, but the mulberry tree leaves are its favourite food.

2. *Bombyx religiosa,* HELFER, Deo-mooga HIND, Joree HIND, is found in Assam and Cachar, but is supposed by Mr. Moore to be identical with B. Huttoni. This feeds on the Ficus Indica, and Ficus religiosa. Its cocoon shows the finest filament, has very much lustre, is exceedingly smooth to the touch and yields a silk, if not superior, yet certainly equal to that of B. mori. It has not been domesticated.

3. *Bombyx Huttoni,* WESTWOOD, is found in the Himalaya, about Mussoorie, where it occurs abundantly from the Doon up to at least 7,000 feet. It feeds on the leaves of the wild mulberry and breeds twice a year. It has not been domesticated, but feeds on the trees. It spins its cocoon, on the leaf, which is enclosed, the silk is very fine and of a very pale yellow tint. It is found in the Western Himalaya, in great profusion, at elevations of 3,000 to 8,000 feet, above the sea level. It occurs in the height of the rainy season, when the hills are enveloped in dense mists. Its eggs are deposited on the trees, and subjected to the influence of the frosts and snows of those mountain winters. It is supposed by Major Hutton, that it would suit the climate of Britain. A special committee of the Agri Horticultural Society of India, declared that silk of the very best description can be obtained from its cocoons by careful reeling. The silk is fine and tough, though perhaps somewhat less soft and silky to the touch than that of the Chinese worm, and was valued by the Delhi Shawl merchants at 25*s.* the pound. At Simla, nine species of Bombyx, Saturnia and Actias occur, nearly the whole of which might be turned to account in producing silk.— (*Major Hutton in No.* 8. *of Universal Review.*)

4. *Bombyx Horsfieldi,* MOORE, is found in Java.

5. *Bombyx sub-notata,* WALKER, is found in Singapore.

6. *Bombyx lugubris,* DRURY, found in Madras.

Bombyx Yama mai, the oak silk worm, a native of Japan, has been naturalised in England. In Japan it is the most precious for the produce, and is a monopoly of the Royal family. The cocoons are of a beautiful yellowish green colour. The silk is as fine, thin and light brown as that of the mulberry worm.

Bombyx Pernyi, a native of the north of China. It produces the gridelin cocoon and silk.

Bombyx mylitta, of India, produces a large cocoon. It feeds on the leaves of the Rhamnus ujuba, and furnishes a dark colored, or grey silk, coarse but durable, inferior to that of the B. Yama mai.

7. *Cricula trifenestratra,* HELFER, has been arranged under the genera saturnia, euphranor, antheræa, and phalæna. It occurs in N.E. and S. India, in Silhet, Assam, Burmah and Java; and feeds on the Protium Javanum, Canarium commune, Mangifera Indica, and Anacardium occidentale. Its cocoon is constructed like net work, through which the enclosed chrysalis is visible. It is of a beautiful yellow colour, and of a rich silky lustre.

8. *Salassa lola,* WESTWOOD, formerly in the genera saturnia and antheræa, occurs in Silhet.

9. *Antheræa paphia,* LINN.

Tesser............	RUMPH.	Koli-surrah...... ...	MAHR.
Tusseh......	HIND.	Munga......	MICHI.
Bughi... ...	BIRBHOOM,	Kontkuri Muga....	ASSAM,

This has been classed in the genera Phalæna, Saturnia, Bombyx and Attacus. It is known to occur in Ceylon S. India, N. W. and N. E. India, Bengal, Bahar, Assam, Sylhet and Java. It feeds on the Shorea robusta, Zizyphus jujuba, Terminalia alata, T. catappa, T. glabra, Bombax heptaphyllum, Tectona grandis, or teak, and the mulberry or Morus indica. The insect has not been domesticated, but is watched on the trees and, in parts of India, is found in such abundance that the people from time immemorial have been supplied with a very durable, coarse, dark colored silk, which is woven into the well known tasseh silk cloth. In the Bhagulpore district the cocoons are collected in cart loads and are much used, cut into thongs, as ligatures for binding the matchlock barrel to the stock. In the rainy season the perfect insect appears from the cocoon in about twenty days. But Tasseh moths are hatched twice in the year, in May and August. The caterpillar first draws a few leaves together, as if to screen itself from observation and then spins a strong cord, composed of many threads till about the thickness of a crow quill, at the end of which it weaves the cocoon. For the first 36 hours, the cocoon is so transparent that the larva can be seen working within: but it soon acquires consistence and is then rendered quite opaque by being covered with a glutinous substance. The moth generally deposits its eggs within a few yards of the cocoon. These the villagers collect and keep in their houses for about ten days until the young caterpillars come forth, when they are placed on the Asan trees in the jungles and in 8 or 10 days more they prepare for change to the chrysalis state. The owners tend them carefully to protect them from the birds by day, and from bats at night; and practise many superstitious ceremonies to aid them in their care.

10. *Antheræa Pernyi*, GUERIN. Syn. A. mylitta; Saturnia Pernyi; is a native of China.

11. *Antheræa Frithii*; MOORE, found at Darjelingnt.

12. *Antheræa Roylii*, MOORE, found at Darjeling.

13. *Antheræa Java*, CRAMER, Syn. Bombyx Java, found in Java.

14. *Antheræa Perottetti*, GUERIN, Syn. Bombyx Perottetti, found at Pondicherry.

15. *Antheræa, Simla*, WESTWOOD, occurs at Simla and Darjeling. Its expanse of wings is nearly six inches.

16. *Antheræa Helferi*, MOORE, neighbourhood of Darjeling.

17. *Antheræa Assama*, HELFER, Syn. Saturnia, Westwood, the Mooga or Moonga of the Assamese, is found in Ceylon, Assam and Silhet. It can be reared in houses but thrives best when fed on trees: and its favourite trees are the Addakoory tree, Champa (Michelia) Soom, Kontoolva, digluttee, and souhalloo, Tetranthera diglottica and macrophylla, and the pattee-shoonda or Laurus obtusifolia. There are generally five broods of Moonga worms in the year.

18. *Antheræa larissa* WESTWOOD, Syn. Saturnia, a beautiful species, found in Java.

19. *Antheræa* —— ? sp. This is a native of Mantchouria, in a climate as rigorous as that of Britain. It feeds on a species of the oak. Its silk is strong, with little lustre and resembles strong yellow linen. It has been introduced into France.

20. Genus *Loepa katinka*, WESTWOOD, Syn. Saturnia: Antheræa; a native of Assam, Silhet, Tibet and Java.

21. Genus *Actias selene*, Syn. Tropæa, Plectropteron, Phalæna; a native of India, at Missouri and Darjeeling from 5,000 to 7,000 feet. It feeds on the Coriaria nepalensis, or Munsuri *Hind*, the walnut, Andromeda ovalifolia and Carpinus. The eggs are laid for a few days after the visit of the male, they hatch in about 18 days, and the larva begins to form its cocoon when about 7 weeks old.

22. *Actias mænas*, DOUBLEDAY. Syn. Tropæa, a native of Silhet.

23. *Actias sinensis*. WALKER, Syn. Tropæa, a native of N. China.

24. Genus *Saturnia pyretorum*, BOISDUVAL, a native of China.

25. *Saturnia Grotei*, MOORE, a native of Darjeeling.

26. *Genus Attacus* atlas, LINN. *Syn.* Phalena, Bombyx, Saturnia.

This is the largest of all known lepidopterous insects. It is found in Ceylon, all over India, Burmah, China, and Java, and the Tusseh silk of the Chinese is said to be obtained from its cocoon.

27. *Attacus Edwardsi*, WHITE, a native of Darjeling, of an intensely dark colour.

28. *Attacus Cynthia*, DRURY, Syn. Phalæna, Bombyx, Samia, Saturnia.

This is the eri, eria, or arandi silk worm of Bengal and Assam, which occurs also in N. E. India, Tibet, China and Java. A. Cynthia feeds on the foliage of the Ricinus communis, the castor oil plant, hence its name the Arndi. It spins remarkably soft threads.

29. *Attacus ricini*, BOISDUVAL, Syn. Saturnia and Phalæna. This is found in Assam, Ceylon, and is the arindi or castor oil silk worm of Bengal, so called because it feeds solely on the common castor oil plant with which also, they are fed, when domesticated. This is reared over a great part of India, but particularly at Dinajpur and Raujpur. The cocoons are remarkably soft and white, but the filament is very delicate, the silk cannot be wound off, and it is therefore spun like cotton. The yarn, thus manufactured, is woven into a

coarse kind of white cloth, of a seemingly loose texture, but of incredible durability, a person rarely can wear out a garment made of it, in his life time.

30. *Attacus Guerini*, MOORE, is smaller than A. Cynthia and A. ricini. It is found in Bengal. —*Dr. T. Horsfield and Mr. F. Moore's Catalogue of the Lepidopterous Insects, in the Museum at the East India House, London* 1858-9. *Mr. Frederick Moore's Synopsis of the known Asiatic-species of Silk producing Moths. Proceedings of the Zoological Society of London, June 28th*, 1859. See *Lepidoptera.*

BOMBYX. A genus of insects of the family Bombycidæ and order Lepidoptera. The Bombyces are usually styled Silk moths. The valuable product of the silk moth is the cocoon and races have been produced differing much in their cocoons, but hardly at all, in their adult states. Several distinct species exist in China and India some of which can be crossed with the ordinary moth, Bombyx mori. This is believed to have been domesticated in China B. C. 2700. It was brought to Constantinople in the sixth century, whence it was carried into Italy and in 1494 to France, and has, since, been transported to many countries where food and selection have produced many varieties. It is only in some districts of each country that eggs come to perfection. Captain Hutton is of opinion that at least six species have been domesticated. Bombyx Mori is a very important silk worm. B. Mylitta lives on the leaves of Rhamnus jujuba and yields a dark coloured coarse but durable silk, B. Cynthia feeds on the castor oil plant and spins very soft threads. Eastward of the City of Canton on a range of hills called Lofau shan, there are butterflies of large size and night moths of immense size and brilliant coloring, which are captured for transmission to the Chinese court and for sale. One of these, the Bombyx atlas, measures about nine inches across, the ground colour is a rich and varied orange brown, and in the centre of each wing there is a triangular transparent spot, resembling a piece of mica.—*William's Middle Kingdom, page* 273. *Darwin.*

BOMKAR, MAR ? a class of weavers in Kandesh.

BOMLEMARA, CAN. ? Dr. Gibson describes this tree as occuring below and near the ghats only in Canara and Sunda. Its wood is very serviceable for planks, and seems to be so used.—*Dr. Gibson.*

BOMMA JEMUDU, TEL. Euphorbia antiquorum *L.*—*R.* ii. 468.

BOMMA KACHCHIKA, TEL. Costus speciosus, *Sm.*—*R.* i. 58.

BOMMA MEDI, TEL. Ficus oppositifolia. —R.

BOMMA PAPATA, TEL. Stylocoryne Webera, A. *Rich.*

BOMMA SARI, TEL. Polycarpæa corymbosa, *Lam.*—*W. and A.*

BOMMIDAPU CHETTU, Indigofera glandulosa,—*Willd.*

BOMNI AMLI, DUK. Adansonia digidata.

BOMULD, DAN. Cotton.

BOMULL, SW. Cotton.

BO-MUSA OR BOO MOUSEH, an uninhabited island, in lat. 25° 54′ N. long. 55° 8′ E. on the north side of the Persian Gulf.—*Horsburgh.*

BOMPOKA, one of the Nicobar Islands.

BOMRAZ, a polygar chief N. W. of Madras mentioned in the history of the peninsula, of the eighteenth century.

BOM-ZU OR BUNZU, called also Bondu, a tribe of the Rakhoing, who dwell north of the Koladyn river. They have, on their north, the Lungkta, Kungye or Kuki in the highlands of Tipperah. The Bomzu and the Kuki seem to belong to the Burman race.

BON. A religion in Eastern Thibet.

BONANG. A musical instrument of Java.

BONAI. A tributary state S. E. of Colehan.

BONAYA. A genus of plants. of the order Scrophulariaceæ, several species of which occur in the south and East of Asia.—*Voigt.*

BONCA OPPOSITIFOLIA, MEISNER. Mayan, BURM.

BONDARA. MAR. ALSO NANNA. MAR. Lagerstrœmia reginæ. Benteak.

BONDODORA RIVER, rises in the Tableland of Orissa, Lat. 19° 39' Lon. 83° 27.' S., debouches into the Bay of Bengal. Length, 130 miles.

BONDUC NUT. ENG.

Kutculega	HIND.	Kalichi kai	TAM.

The Oil.

Calichi kai yennai, TAM.

The seeds of Guilandina bonducella, irregularly round, grey ; the almond is white, very hard and intensely bitter ; gets a blood red colour from nitric acid.

The oil is mentioned by Ainslie, as being considered useful in convulsions and palsy. The seeds themselves are believed to possess tonic virtues and are used solely as a medicine,—*Med. Top. Ajmir. Ainslie.* See Cæsalpinia bonducella ; Guilandina bonducella.

BONE BAYAGA, BURM. Excœcaria agallocha.

BONEN SIMA, or ARZO-BISHO ISLANDS. Several groups in the Archipelago, extending from L. 27° 44¼′ N. to 26° 30′ N. and to the most northerly of which has been given the name of Parry Group.—*Horsb.*

BONES.

Haddi,	Guz. Hind.	Asthi	Sans.
Tulang	Malay.	Yellumbúgall	Tam.
Istakhan,	Pers.	Yemukálu	Tel.

The bones of cattle and other animals are extensively used in the arts, in forming handles for knives, walking sticks, inlaying small boxes, lanterns, paper knives, buttons, and many small articles of dress, are made in China from horn and bones. Subjected to destructive distillation, in large retorts, amongst the other products which pass over is a peculiar oil, which is collected and afterwards employed to feed lamps burning in small close chambers, the sides of which thus become covered with Lamp Black. The mass remaining in the retorts is called ivory black, bone black, and animal charcoal. This substance has a remarkable attraction for organic colouring matter, and is largely used for removing the colouring matter from syrup, in the refining of sugar, and in the purification of many other organic liquors. By exposing ivory black to an open fire, the carbon is driven off, and the bones are nearly blanched. These are reduced to powder, which is used for making the cupels of the assayer, also as a polishing powder for plate and other articles, and also by the manufacturers of phosphorus for making lucifer matches.—*Morrison, page* 197. *Toml.*

BONGA, Hind. Aconitum heterophyllum.

BONGAS JAMPACA. Malay. Michelia champacá.

BONGKO. Jav. Hernandia sonora.

BONG LONG THA, Burm. A timber tree of Amherst, Tavoy, and the Mergui Archipelago, of maximum girth 3 cubits, maximum length 22 feet, and said to be abundant. Found all over the provinces, has not been easily obtained in Moulmein. When seasoned, floats in water. It is a durable yet light wood with a very straight grain; used for every purpose by the Burmese, and much recommended for helves.—*Captain Dance.*

BONGS. Tagala and Bisaya. Areca catechu.

BONGU VEDURU. Tel. Bambusa arundinacea, *Willd.—R.* ii. 191; *Bongu* means "hollow.".

BONGZU. See Bomzu.

BONI, an island in the Gillolo passage, with a harbour on its east side in Lat. 0° 1½' S.; Long 131° 3' E—*Horsburgh.*

BONIA. Tel. Mullet Fish.

BONI GULF, a gulf in Celebes. See Celebes.—*Horsburgh.*

BONIN, Hindi of Kashmir, Platanus orientalis, the Oriental plane. See Buna.

BONIN ISLANDS, to the east and S. E. of the Japan chain, explored by Captain Beechey in 1827.—*Horsburgh.*

BONIN SIMA or ARZOBISHO ISLANDS, consist of several groups, extending from lat. 27° 44½' to 26° 30' N. and to the most northerly of which is given the name of Parry group.—*Horsburgh.*

BONITO, the Scomber pelamys, *Linn.*, one of the mackerel tribe. It inhabits the southern seas, and is often caught by hook and line. Its flesh resembles raw beef and when cooked is not inviting.—*Bennett, p.* 22.

BON KI JAR, Hind. Root of Caryota urens.

BONNET IPOMÆA. Eng. Ipomæa pileata.

BONNET-MACAQUE, Macacus sinicus. See Simiadæ.

BONO KONIAREE, Tel.? Uria? A tree of Ganjam extreme height 50 feet. Circumference 3 feet. Height from ground to the intersection of the first branch, 10 feet. Used for planks, boxes, and walking sticks. It is scarce.—*Captain Macdonald.*

BON SONE, Burm.? A tree of Moulmein. Wood used for house building purposes.—*Cal. Cat. Ex.* 1861.

BON RHEEA. See Bœhmeria; China Grass; Rheea.

BON SURAT, the commercial name given to the fibres of the Urtica crenulata, Orchor Putta, which see.—*Royle, page* 366.

BONTA. Tel. Mullet Fish.

BONTA ARITI CHETTU, Tel. Musa paradisiaca, *L.*

BONTA CHEMUDU, Tel. Euphorbia antiquorum *L.* and Bonta chemmadu palu. Tel. Milky juice of Euphorbium.

BONTA VEMPALI. Tel. Tephrosia purpurea, *Pers.— W. & A.* 663.

BONTIA GERMINANS, Linn. Syn, of Avicennia tomentosa.—*Linn. Roxb.*

BONZE, a corruption of the Japanese, *busso*, a pious man. The name of bonze was given by the Portuguese to the priests of Japan, and has since been applied to the priests of China, Cochin-China, and the neighbouring countries. In China, the bonze are the priests of Fuh, or sect of Fuh, and they are distinguished from the laity by their dress. In Japan they are gentlemen of families.

BOOAH. A river near Balgoozer in Monghyr.

BOOA-ANGOOR. Malay. Vitis vinifera: Grapes.

BOO ALLI. An island in lat. 27° 17½' N. long. 49° 41' E on the west side of the Persian Gulf.—*Horsburgh.*

BOOA LONTAR, Mal. Borassus flabelliformis.

BOOA-MINYAK, Mal. Olives.

BOO-AMBILLA-GASS, Singh. Antidesma paniculata.—*Roxb.*

BOOA NANKA, Malay. The fruit of Artocarpus integrifolia.—*Linn.*

BOOA-PALA, Malay. Myristica moschata.

BOOAROOCUM, Sumatran. Carissa spinarum.

BOODAMA PUNDOO, Tel. Bryonia.

BOODDA-KANKA-RAKOO, Tel. Cardiospermum halicacabum.

BOOCHO, in long. 75° 3' E. and lat. 30° 11' N.

BOODHA, Sans. The sages of this name. See Buddha.

BOODDHA-SATWA, Sans. From Boodhi, the understanding, and satwa, the quality leading to truth.

BOODH-ASHTAMI, Sans. From Boodha, Mercury, and ashtami the eighth lunar day.

BOODHA, also BURHA, Hind. Old, hence the names of many towns, rivers, &c., as Bud'ha Gya, Bud'ha Ganga.

BOODIDA, Tel. Ashes.

BOODTHEE KEERAY, Tam. Rivea fragrans.

BOOGTI. A Beluch tribe, subjects of the khan of Kelat. The Boogti do not now give the British any cause of offence. Some of them are serving in the Punjab cavalry and many are in the Sindh service. They are subjects of the khan of Kelat. The Boogti and Murri, occupy the mountain district which extends eastward to the South of Sind and Kutchee. See Bugti; Kelat, p. 487. Khyber, p. 516.

BOOI CHAMPA, Beng. Kaempferia rotunda.

BOOIN AONLAH, Duk. Phyllanthus niruri.

BOOKET QUAILY. A hill on Sumatra. See Rigas Islands.

BOOKS, Eng.

Kūtūb	Ar.	Kitab	Pers.
Boger	Dan.	Ksiaski	Pol.
Bocken	Dut.	Ksiegi	„
Book	Eng.	Livros	Port.
Livres	Fr.	Knigi	Rus.
Bucher	Ger.	Pustakam	Sans.
Chopdi	Guz.	Libros	Sp.
Kitaben	Hind.	Bocker	Sw.
Libri	It. Lat.	Pusthakam, the Plur.	
Poti	Mahr.	is Pustakangal.	Tam.
Tulisâb; Katál.	Malay.	Pusthakalu	Tel.

A general term applied to blank, printed, lithographed, or manuscript books.

The ordinary material of which books are now made, is paper, manufactured from various vegetable substances. But, the people of the south of India still use, largely, the prepared leaf of the palmyra palm-tree, on which they write with an iron style. Also, a thick paper board, blackened, is largely used by many as a book on which they write with a soapstone pencil. It answers to the horn book of Europe. To the man who has no knowledge of any books except such as are in use now-a-days, the idea of *eating* one must seem, even as a metaphor, very fantastic. It occurs in John's description of the apocalyptic vision, Rev. x. 10, where he says, "And I took the little book out of the angel's hand and ate it up. Of course, this intended to describe symbolically the careful perusal and inward digestion of what the book contained; but the symbol must seem unhappy to one who thinks a little book must mean a duodecimo or pocket edition. When he is told, however, that the papyrus which in ancient times was used for writing upon was also used by the common people as an article of diet, the Apostles' symbol becomes, at once, natural and appropriate. In like manner, when he learns from Egyptian history that the lotus, or water-lily of the Nile, was much prized as an article of food, we see the sense of the passage in the Canticles (ii. 16.) "My love feedeth among the lilies." And those who have seen that beautiful and majestic flower, the scarlet *Martagon* lily, (which is the one referred to in the New Testament,) will feel the full force of Christ's remark, that "even Solomon in all his glory was not arrayed like one of these."

BOOK ATTENE, Anglo. Singh. Alsastonia scholaris. R. Br.—*Don.*

BOOK THA, Burm. A tree of Amherst, Tavoy and Mergui, of maximum girth 1½ to 2 cubits, and maximum length 11 feet. Scarce but found on the sea coast from Amherst to Mergui. When seasoned it floats in water. It is used by the Burmese for helves, but rots quickly, and therefore is not recommended.—*Captain Dance.*

BOOLOO, Sing. Myrobalan.

BOOLANDUH, in 75° 38' E. and L. 29° 56' N.

BOOLUN, Hind. Gold thread used in making gold lace and brocades.

BOOM, (1 Vol.), a Thibetan work in 12 volumes containing tracts of the Eloopka Section; 11 Volumes were sent to the India Museum.

BOOM, Singhpo. A river.

BOOMI KOOMARA. Trichosanthes cordata.

BOOMI TYLUM, Tel. Naphtha; Petroleum.

BOOMWOL, also Katoen, Dut. Cotton.

BOON, Hind. Unground coffee; the Coffee berry.

BOON, Reed or Shove, the wood-like part of the flax plant. It is surrounded by the tough fibres called bast or harl and covered by cuticle, all cemented together by gummy and azotized compounds.—*Royle, p.* 199, 315.

BOONDALA? An agricultural race in the Maiker district.

BOONDEE, a town in Lat 75°. 40' E. and Long. 25° 26' N.

BOONDEE, the ruling family of Boondee belong according to Aitcheson to the Hara tribe of rajpoots. They have been elsewhere noticed as Chouhone or Pramara rajputs. The first rajah with whom the British Government had any intercourse was Omeda, who gave most efficient assistance to Colonel Monson's army in its retreat before Holkar: he died, in 1804, after a rule of upwards of fifty years, and was succeeded by his infant son, Bishen Sing. During the Mahratta supremacy this state suffered much at the hands of Sindia and Holkar, who virtually assumed the management of the revenues. The territory of Boondee was so situated as to be of great importance during the war in 1817 in cutting off the flight of the Pindaiee. Maha Rao Bishen Sing early accepted the British alliance, and a treaty was concluded with him on 10th February 1818. By this, the tribute paid to Holkar and the lands in Boondee held by Holkar were relinquished to the rajah, who engaged to pay to the British Government the share of tribute he had hitherto paid to Sindia. In its earlier fortunes, this little state became so connected with the imperial court of Delhi that, like Jeipoor, the princes adopted several of court customs. The Purthan, or premier, was entitled *Dewan* and *Moosahib*; and he had the entire management of the territory and finances The *Foujdar* or *Killedar* is the governor of the castle, the *Maire de Palais*, who, at Boondi, is never a rajpoot, but some *Dhabhae* or foster-brother, identified with the family, who likewise heads the feudal quotas or the mercenaries, and has lands assigned for their support. The *Buckshee* controls generally all accounts; the *Rassala* those of the household expenditure. Boondee has a beautiful palace.—*Tod's Rajasthan, Vol. II. p.* 504. *Treaties, Engagements and Sunnuds, Vol. IV. p.* 63.

BOONDOO MALLI, Tel. Jasminum sambac.—*Ait.*

BOONEE. A muslin made at Dacca. See Cotton Manufactures.

BOONERE OR BUNOOR. Beyond the Judoon country on the North West, is Booneer or Bunoor. It is a rugged country, extending from the lower range of the Hindoo Coosh downwards to hills which command the Chumla valley and the central plain of Eusufzye. On its Western Frontier, again, lies the Swat territory. The Boonere people are strong; they could muster a force of some thousands; they appear to be on good terms with their neighbours, the Swatee. In 1849 they aided some British subjects, at Loondkhor in Eusufzye, who refused to pay revenue; but they have generally abstained from molesting British subjects, and the British had no concern with them. Near them are the Swat, Raneezye and Lower Osmankheyl tribes, the two latter being subordinate to the former.

BOORA, Boori, Boorha, Budda, Hind., old.

BOORA-BOLONG, a river near Huldee pudda in Balasore.

BOORAGA, Tel., the name of the gum and wood obtained from Bombax malabaricum. It is a pure gum. See Salmalia malabarica.

BOORAUMPOOR in Long. 73° 40' E. and Lat. 23° 0' N.

BOORASOO, a pass to Changsoo from Kunawur.

BOOR-COLE. Grows, in India, to great perfection; the leaves are curled. The tops should be cut off when two feet high; the sprouts are the only part fit for use.

BOOREE, Beng. Symplocos spicata.

BOOREE. The pollen of the plant called Typha elephantina (*putera*), a native of Sinde: it is inflammable like that of Lycopodium, and used as a substitute for it in Europe. It is collected in Sinde.—*Royle, p.* 35.

BOOREE BARAK, a river in Lalla Bazar, in Silhet.

BOOREE DEWAH and RANDAREE, three nuddies near Chickulwar, and Malligaum.

BOOREE KOSSEE, a river in Purneah.

BOOR-GANDUK or LAL BUCKIAH, a river near Shekur gunj.

BOOROOD, a race in Berar. There are 955 of this people in the Oomraoti district.

BOORHAMPORE.

BOORIGOPAN, Beng. Dipteracanthus dejectus.

BOORJ, Ar. Hind. Pers., a Bastion, a Fort, Boorooj, the plural, is applied to the signs of the Zodiac, in order, as Masudi says, to mark the position of the stars with reference to these fixed objects. The word burj is widely diffused In Gothic Bairgan, and Saxon, Beorgan to fortify; Celtic Brig; this however is doubtful, as Brig frequently seems to apply to towns near bridges. Thracian Bria, a city (Strabo, VII.) German Bürg, a city; and English Borough, Burgh, and Bury so frequently the affix of the name of the towns. All places in Britain that in the old time had the name of Bourroughs, were places one way or other fenced or fortified. ("Restitution of decayed Intelligence," Ch. VII.) The Greek Purg-os is evidently the same word, signifying a Tower and hence applied also to a Dice Box—Mitteret in pyrgum talos. (Hor: Sat: II., 7, 17.) It enters commonly into the name of fortified towns. One in Mysia; (Anabasis VII. 8, 8.) In Thrace; (Herod: VII. 112.)—*Elliot Supplemental Glossary.*

BOOROOCH GAHA. Sing. Swietenia chloroxylon.

BOOROOGA WOOD. Anglo-Tel. Bombax malabaricum.

BOOROONDI. Sans. Celosia albida.

BOORUNK KALA—Ocymum basilicum; Sweet Basil.

BOORYA. Pers. Mats.

BOOSI. Tel. Vitex arborea.

BOO-SO-PAW. Burm. The cork tree is indigenous in the lower provinces of Burmah, and it is believed, in the upper also. Unlike the proper cork, the bark is thin and worthless. The wood itself is soft, tough, and fine and makes a good cork. It seems to be the Bignonia suberosa.—*Malcolm, Vol. I. p.* 191.

BOOT, Beng. Cicer arietinum.

BOOTA, Guz. Hind. Maize, the head of the Zea mays, which is grown at the commencement of the rains and sown in garden beds or in the fields; the ground should be well manured before the seed is sown, it requires little care; the heads are either boiled or roasted before being eaten.

BOOTALLA-POTAKA, also Amshunaty-divain-diva. Sans. Senna.

BOOTALLI MARAM. Tam. Givotia Rottleriformis.

BOOTAN, an independent Kingdom on the N. E frontier of British India. According to Atkinson, the temporal supremacy in Bootan is vested in an officer called the Deb Rajah, and the spiritual supremacy in another officer called the Dharm Rajah. The first intercourse of the British government with Bootan commenced with the expedition sent in 1772 for the relief of the rajah of Cooch Behar. The Booteah being driven out of Cooch Behar, and pursued into the hills, threw themselves on the protection of Thibet. The Teshoo, or Tesoo Lama, then regent of Thibet, and guardian of the grand Lama of Lassa, addressed the Government of India on their behalf. The application was favourably received, and a treaty of peace was concluded on 25th April 1774. From that year, with the exception of two unsuccessful commercial missions in 1774 and 1783, there was little intercourse with Bootan, until the British occupation of Assam, which connected the British and Bootan frontiers. From that time, there had been a continued series of aggressions by the Booteah on British territory, followed by reprisals on the part of the British government, and the occupation of the Dooars or passes which lie at the foot of the Booteah hills. Between the Teesta, which forms the eastern boundary of Sikkim and the Monas, there are eleven Dooar, some bordering on British territory and some on the state of Cooch Behar. Their names are,—

Dalimkote,
Zamerkote,
Cheemurchee,
Lukhee,
Buxa,
Bulka,
Bara,
Gooma,
Reepoo,
Cheerungoor Sidlee,
Bagh or Bijnee.

Little is known regarding the first six of these. They are governed by Soubahs appointed by the sunnud of the Deb Rajah. Bijnee and Sidlee are governed by Rajahs, who pay tribute to Bootan, and the Bijnee Rajah holds two Pergunnahs in British territory for which he pays revenue to Government.

On the northern frontier of Kamroop there are five Dooar, and on the north of Durrung two. Their names are,—

Ghurkolah.
Baksha or Banska.
Chappagooree.
Chapakhamar.
Bijnee,
Booree Gooma,
Kulling.

Under the Assam government, the Kamroop Dooar had entirely fallen under the Bootan authorities, and the Bootan supremacy continued after the acquisition of Assam by the British Government. But the Durrung Dooar were held alternately four months by the British Government, and eight months by the Booteahs each year. In 1841, in consequence of aggressions, the whole of these Dooars were annexed to British territories, and Rs. 10,000 a year paid as compensation to the Chiefs of Kamroop and similarly with the Booteahs of Durrung Towang Rs. 5,000 a year paid for the Koreapara dooar. To the east of the Towang country are the independent clans of the Rooprye and Shirgaiah Booteahs, whose custom it was to enter the Char Dooar and Now Dooar, which have been held by the British government since the occupation of Assam and to levy black mail. But the black mail was eventually commuted to an annual payment of money. The Rooprye and Shirgaiah Booteahs receive under agreement Rs. 2,526-7 a year. Similar payments are made to the Thebengiah Booteahs, but they do not appear to have subscribed any engagement.

Further to the east are the wild tribes of Aka, with whom similar agreements have been made. The Duffla, Meri and Bor Abor also receive money payments in lieu of black mail, but no engagements appear to have been taken from them.—*Aitchison's Treaties, Vol. I, p.* 142-3.

BOOTAN KOOSHUM. Sans. Anisomeles malabarica.

BOO-TA-YAT, Burm. Ægiceras fragrans. —*Kon.*

BOOTIA, the people of Bootan. See Bootan; India.

BOOTIRSACHA. Malay, Glass beads.

BOOT KHANA, Pers. Lit-idol-house, by some supposed to be the origin of the English word Pagoda.

BOOT-KULAY, Beng. Cicer arietinum.

BOOTUNTI, a name given to the Tartars by the people of Lower Kunawar. They also call the Tartars Zhad, also Bhotiah, and their country is called Bhot and Bootunt. These

Tartars differ greatly in appearance from the people of Lower Kunawer. See Kunawer.

BO-PHALLI, HIND., species of Corchorus, viz. C. olitorius, C. depressus, C. acutangula, and other species.

BOPP; F., A sanscrit scholar who, since 1816, has been printing works on Sanscrit Grammar and Comparative Philology.

BOPPAYI, TEL. Carica papaya. L.

BOR, HIND. Ficus indica.

BORA. See Inscriptions, p. 391.

BORA, HIND. A rice sack.

BORA, HIND. Dolichos catjan.

BOR-ABOR. A race dwelling on the north of the Abor, occupying the mountains on the north of the Brahmaputra River in Lat. 28° N. and Long. 95° E. to the West of the Dihong river. The British government make money payments to the Bor Abor, Dophla, Meri and Aka to abstain from levying black mail in Assam.—*Aitcheson.* See Abor, India, p. 317-338.

BORACHA. PORT. Caoutchouc. ENG.

BORA-CHUNG, or "ground-fish" of Bhootan. Inhabits the jheels and slow running streams near the hills, but lives principally in the banks, into which they penetrate from one to five or six feet and are found generally two in each chamber, coiled concentrically like snakes. The entrance to these retreats leading from the river into the bank is generally a few inches below the surface, so that the fish can return to the water at pleasure. The mode of catching them is by introducing the hand into these holes. It is not believed that they bore their own burrows, but that they take possession of those made by land-crabs. Dr. Campbell says they are not more capable than other fish of moving on dry ground. The bora-chung would appear to be an Ophiocephalus, probably the O. barka described by Buchanan, as inhabiting holes in the banks of rivers tributary to the Ganges.—*Tennent's Sketches of Nat. Hist. of Ceylon*, p. 367-8.

BORACHA. PORT. Cáoutchouc.

BORAEE.—Borago officinalis.

BORAEE, a river near Rhylee in Dumoh.

BORAGE, COUNTRY. ENG. Syn. of Coleus amboinicus, *Lour.*

BORAGINACEÆ. See Ehretiaceæ, Echium grandiflorum, Cordia, Nonea, Conoglossum.

BORAGO OFFICINALIS, *Linn*, a plant of Europe, grown in India as a pot herb; the young shoots and leaves as salad requires treatment similar to Angelica, it is suitable for the flower garden.

BORAGO INDICA. See Ch'hota Kulpa.

BORAGO ZEYLANICA.

Balatti Kulpa	BENG.	Valaiti kulpa	HIND.
Ceylon Borage	ENG.		

Is cultivated in some gardens at Ajmere as a flower.—*Genl. Med. Top. p.* 180.

BORA, See Bhora.

BORAS. DUT. Borax.

BORASSUS. The Tenasserim Provinces yield an indigenous palm, which the natives call the wild palmyra. It has the fruit of the palmyra, but the leaf differs from it sufficiently to constitute it another species.—Wood not known.—*Dr. Mason's Tenasserim.*

BORASSUS DICHOTOMUS, a name given to the B. flabelli formis, when it splits into a double crown.

BORASSUS FLABELLIFORMIS, *Linn; Rheede; Roxb.*

Lontarus domestica, *Rumph.*

The tree is named,

Dom	AR.	Am-Pana	MALEAL.
Tafi	„	Carim	„
Tal-gach'h	BENG.	Tala	SANS.
Palmyra Tree	ENG.	Tal	SINGH.
Brab Tree	„	Panam maram	TAM.
Tar ka jhar	HIND.	Tatti chettu	TEL.
Rontal	JAV.	Penti-tati chettu	„
Loutar	MALAY.	Karata-lamu	„
Pada	MALEAL.	Potu tadi	„

The wood is called.

Palmyra wood	ENG.	Panam maram kattai.	TAM.
Porcupine wood	„		
Tar-kejhar-ki-lakri	HIND	Tatti chettu karra.	TEL.

The palm wine or toddy is known as

Tari	DUK.	Tuwak	MALAY.
Palmyra Toddy	ENG.	Pannam kallu	TAM.
Nera	MALAY.	Tati kallu	TEL.

The sugar is

Tar-ka-gur	DUK.	Pannam vellum	TAM.
Jaggery of Palmyra Toddy	ENG.	Tati bellam	TEL.

The edible part is called

Geunghul	DUK.	Tala	SANS.
Young Palmyra Plant	ENG	Pannam kelangu	TAM.
		Tati-gadda	TEL.

The fibres of the palmyra leaf are called

Pannam nar	TAM.	Tati nara	TEL.

Its fruit is the

Tar phal	DUK.	Tata	SANS.
Palmyra fruit	ENG.	Pannam pallam	TAM.
Bua Lontar	MALAY.	Tati paudu	TEL.

To Eastern nations, the Palmyra tree is only inferior in usefulness to the date tree and the cocoanut palm. It grows straight to a height of 70 feet with a circumference of 5½ feet at bottom and 2½ at top. A tamil poem, of Ceylon, the Tala Vilásam, enumerates 801 purposes to which the Palmyra may be applied. The trees have to attain a considerable age before they become fit for timber, as their wood becomes harder and blacker by age, and the harder and blacker it is the better. The wood, near the circumference of old trees, is very hard, black, heavy, and durable. A cubic foot weighs 65 lbs. and it is calculated to last 80 years. In some parts of the Ceylon and Madras coasts, this tree is very abundant, especially in sandy tracts near the sea, though it is to be seen in most parts of India, and occasionally so far north as 30°. It is used chiefly for rafters, joists and reepers. When of good age, the timber is very valuable for this purpose, the trunk is split into 4 for rafters, into 8 for reepers; these are dressed with an adze. Those of the Jaffna Palmyras are famous, and were, in former times, largely exported. From the structure of the wood it splits easily in the direction of its length, yet supports a greater cross strain than any other wood. Old black Palmyra wood, was, next to the Casuarina, the strongest wood that Dr. Wight tried, one specimen bore upwards of 700 lbs., and five of them gave an average of 648 lbs., though he found some very bad. Mr. Rohde also remarks that it is the strongest wood he tried, retaining for a length of time the position it assumed when loaded, without increase of deflexion: iron nails soon rust in this wood. He procured it of excellent quality in the Circars. The thickness of rafters when trimmed up rarely exceeds two inches four feet from the ground and one inch at twenty or twenty-four feet from it. The fruit and the fusiform roots of the young trees are used as an article of food by the poorer classes. Very neat baskets of Palmyra leaf are made in Tinnevelly. Some clean but brittle fibres were exhibited at the Madras Exhibition of 1855, by the Tinnevelly, Madura and Travancore local committees; and well twisted rope accompanied most of the samples, but the material was said to be stiff, brittle, and liable to rot when wet. This substance did not appear to have undergone any preparation, and it contained so much woody fibre that it is questionable whether it would ever be suited for manufacturing purposes. Its chief uses are for securing thatch, tying bamboos, and in building native huts. The dried leaves of this plant are used for writing upon with an iron style, also in thatching, making fans, and light baskets for irrigation. Next to *Caryota urens*, it is the largest palm on the coast of the Peninsula and it seems to thrive equally well in all soils and situations. The seeds when young are eaten by the natives, being jelly-like and palatable. The leaves are universally used for writing upon, with an iron style. They are also employed for thatching houses, for making small baskets, mats, &c., and some are also formed into large fans, called vissaries in Tamul. The fibres of the petioles of the leaves (*Palmyra nar*) are employed on the Madras side for making twine and small rope. They are about two feet in length are strong and used for wood. The large carpenter beetle "Xylocopa" delights in boring this hard wood, though the *Cumboo* is still more attractive to it. Small canoes are formed of this tree, two of which lashed to a couple of spars form the usual mode of crossing lakes and rivers in the Circars—the root forms the head of the canoe, the smaller end is either elevated out of water by the form, or some six inches of the pith is left at that end. As this decays, a lump of clay supplies its place. Formerly sea-going vessels were planked with this wood, but the iron fastenings were soon destroyed. Boats planked with it were, till lately, common on the Godavery, being built probably where sawyers are not procurable. The peculiar structure of the wood of the palms deserves attention, it appears formed of a series of hard stiff longitudinal fibres not interlaced or twisted but crossed at considerable intervals at various angles by similar fibres which proceed from the soft heart of the tree, to the outer part, probably to the leaf stem—a radial section of palmyra rafter shows this, the interstices are filled up with pith, the proportion of which increases with the distance from the outer part. The wood is used in England for veneers and inlaying. It is exported in large quantities from Ceylon, where it is used for rafters, pillars, and posts of native houses. In the sandy parts of Jaffna in Ceylon, a hollow palmyra is inserted to form a well. The dark outside wood of very old trees, is used to some extent in Europe for umbrella handles, walking canes, paper rulers, fancy boxes, wafer stamps and other articles The timber of the female tree is the hardest and best, and that of the male tree is never used, unless the tree be very old. It is too heavy to make ships of. At certain seasons of the year, thousands are employed in felling and dressing it. Each tree has from twenty-five to forty fresh green leaves upon it at a time, of which the natives cut off twelve or fifteen annually to be employed as thatch, fences, manure, mats, and mat baskets, bags, irrigation baskets, winnows, hats. caps, fans, umbrellas, &c; books and olay, tatakoo or puttay, for writing on. In the Bombay side it is common only on the Northern Konkan where it is in some parts so abundant, that it might be termed a forest. It is a rare tree in the southern jungles of the Bombay Presidency. The wood, when protected from moisture, is very durable, and may be used with advantage for terraces, &c. when the upper covering is complete. It is also used for canoes. Its leaves, prepared, furnish the leaf ("Ola" Tamil) on which the Tamuls write. Its palm wine is largely used, or converted into arrack or sugar. Its fruit, of the size of an ostrich egg, grows in clusters. But the trees from which the toddy or Palm wine are drawn, cannot bear fruit. When the spathes of the fruit bearing trees appear, the toddy drawer climbing to the top of the tree, binds the spathes tightly with things to prevent their further expansion and thoroughly bruises the embryo flowers within to facilitate this exit of the juice. For several succeeding mornings, this operation of crushing is repeated, and each day a thin slice is taken off the end of the racemes to faclitate the exit of the sap and prevent it bursting the spathe. About the morning of the eighth day, the sap begins to exude, when the toddy drawer again trims this truncated spathe and inserts its extremity into an earthen pot to collect the juice. These vessels are emptied morning and evening and the palmyra will continue for four or five months to pour forth its sap at the rate of three or four quarts a day but once in every three years, the operations is omitted and the fruit is permitted to form, without which the natives assert that the tree would pine and die. The tree, during the first part of the season, yields a pretty large quantity of toddy or palm wine. This is either drank fresh drawn from the tree, or boiled down into a coarse kind of syrup called jaggery, or it is fermented for distillation. The date tree, in S. India, also furnishes toddy, and the amount of daily drunkenness exceeds all that is ever witnessed in Europe. A farina, called "Ila-Pananki jangu mavu," is obtained from the root by treating it the same as in manufacturing manioc. It is very nourishing. The germinating seeds (Ponatoo, *Singh,*) are boiled and eaten in Ceylon as a vegetable.—*Seeman, Simmonds. Drs. Wight, Cleghorn, Gibson, Mr. Rohde. Hartwig, p.* 139, *quoting Sir J. E. Tennent, Vol. II. p.* 523. See Fruits ; Palmyra ; Porcupine wood.

BORAX, ENG. GER. LAT. PORT.

Buruq...........	..AR.	Sohaga..............	...HIND.
Tunkar.................	,,	Pijer........	...JAV. MALAY.
Kuddia-khar.	BENG. GUZ.	Sodæ biboras.........	LAT.
Boras....................	DUT.	Patteri	MALAY.
Bi-borate of soda...	ENG.	Chaularaya..	NEP.
Tincal....................	,,	Tunkar........	PERS.
Borate·al calinule de		Tunkana......	SANS.
soude......	Fr.	Lansipuscara... ...	SINGH.
Borate de soude	,,	Vengaram.............	TAM.
Borax Saures........	GER.	Velligaram............	TEL.
Tunkun-khar.... ...	GUZ.	Tsale......	TIB.

The greater part of the borax met with in commerce, as crude borax or tincal, was formerly obtained from lakes in Thibet, the waters of which yield a yellowish white mass, containing from 30 to 50 per cent. of real borax. That was refined chiefly at Venice and Amsterdam. Recently, a lake with waters similarly impregnated has been discovered in California. But, for a long time past, the borax of commerce has been obtained by treating with carbonate of Sodium, the boric acid obtained from the volcanic district of Tuscany, where jets of vapour, issue from the ground. The natural borax of South Eastern Asia is obtained in large quantities in the valley of Puga, in Ladakh, from Lake Jigatzi in Thibet, 20 miles in circumference, also in the course of the Sanpu river and from the Chaba Lake beyond the Kylas Hills. Its other localities are said to be Persia, China and South America. It is collected on the borders of the Tibetan lakes as the water dries up, then smeared with fat to prevent loss by evaporation, and transported across the Himalaya on the backs of sheep and goats, then refined at Umritsur and Lahore by washing with lime water It is employed by the natives of India as a tonic for loss of appetite ; also as a deobstruent and diuretic in ascites : and also to promote labour. It is used in the arts to clean metals before soldering, to form a glaze on earthenware, and in the preparation of varnishes. It is employed as a chemical flux and in experiments with the blowpipe. It is in composition a biborate of soda. Borax is imported into Bombay from Calcutta and is brought to the Bengal bazaars from Thibet, via Assam ; in India it is employed, in the moist way, as a solvent for gum lac. It is much used by the Tamool goldsmith, tinkers (Cannar, Tam.) and tinmen (Tagara-velecarer, Tam.), to facilitate the fusion of their metals. With it and lime juice, the Vaishnava hindoos prepare their red Tiroochoornum, with which they mark their foreheads perpendicularly. Borax is readily purified by simple solution and crystallization. Borax is sometimes adulterated with alum and common salt ; but ammonia gives a white precipitate (alumina), if the former, and nitrate of silver, a white precipitate, if the latter, be present. Price of raw borax, 4*d.* per lb. ; of refined borax, 6*d.* per lb.—*Beng. Phar. p.* 364. *Ains Mat. Med. p.* 144, *Cal. Cat. Ex.* 1862.

BORE OR TIDAL WAVE. ENG.

The dee lon	BURM.	Bana..........	MALAY.
Eagre.....	CHIN.		

The bore in India, those of the Bay of Fundy, and the Amazon are the most celebrated, but they occur in Southern Asia on several rivers, in the Gulf of Cambay, the Ganges, the Irawaddy, the Sitang and on some China rivers. The bore is a tremulous tidal-wave, which, at stated periods, comes rolling in from the sea, threatening to overwhelm and ingulf every thing that moves on the beach.

In the Hooghly, this is called Bora or Bore. In China, it is known as Eagre ; in the mouth of the united Tigris and Euphrates, it is called Bar. In the Dordogne, in France, it is called Mascaret. In the Maranon, it bears the name of the Rollers ; but by the Indians it is called Pororca.

This phenomenon is only common to certain rivers, and though evidently connected with the tides, as it always occurs at the springs, it has not yet been satisfactorily explained. Colonel Emy attributes it to a ground well. Another view describes the great tidal wave as taking its origin in the Southern Ocean, rushing with impetuosity up the Bay of Bengal, breaking in an angry surf all along the Coromandel Coast, and at times cutting off all communication between the shipping and the shore. This wave, when aided by the south-west monsoon and by the full and change of the moon, rushes with great impetuosity up the rivers of the Gangetic Delta, where it is opposed by the freshes that descend from the up-country during the prevalence of the South west monsoon. When the South-west monsoon has set in bringing with it the dangerous tidal bore, this, for three or four days at the full and change of the moon may be seen racing up the Hooghly river at the rate of twenty miles an hour, dashing from side to side of the river according as the bends, or reaches deflect it in its course. Upon the approach of this wave a distant murmur is heard which soon turns into the cry ban! ban! ban! from the mouths of thousands of people, boatmen, sailors, and others who are on the look out for this much dreaded wave. This cry is the signal for all sorts of craft to push out into the centre of the river, the only spot where the wave does not curl over and break. Should any boat or small craft be caught in that portion of the wave that breaks, instant destruction is inevitable. Numerous boats from the up-country provinces are lost every year from the crew being ignorant either of the existence of the bore, or from not knowing the correct position to take up so as to meet it. Ships at anchor in Calcutta though not exposed to the breaking portion of the wave frequently part their cables when struck with the wave. If standing on the shore during the rapid rushing passage of the bore, it is a curious sight to see the lower portion of the river or that nearest to the sea, six or eight feet higher that the upper portion of the river, the tide rising that number of feet in an instant. The height of the bore in the Hoogly varies from five to twelve feet, it is exceedingly dangerous in some parts of the river, but more moderate in others; it never breaks on both sides of the river at the same time. Deep water engulfs its force, but shallow water, or a sand bank, brings out all its power and fury." Dr. Hooker mentions, that at the mouth of the Megna river, "the great object in the navigation is to keep afloat and to make progress towards the top of the tide and during its flood, and to ground during the ebb in creeks where the bore (tidal wave) is not violent; for where the channels are broad and open, the height and force of this wave rolls the largest coasting craft over and swamps them." The bore, in 1782, flowed as far as Nuddea in the Hoogly but at the present day it falls short of that place by many miles, not ascending much beyond Sooksagor. It reaches Dacca on the Buree Gunga and Castee on the Horinghatta branch. Amongst the calamities that have overtaken the Soonderbuns we must not omit to mention the great inundations caused by cyclones or hurricanes. About 1584, the tract lying between the Horinghatta and the Ganges, known as the Backergunge or Burrisal District, was swept by an inundation, succeeded immediately afterwards by an incursion of Portuguese and Mugh pirates. In June 1822 this same tract was again inundated, 10,000 inhabitants perishing and many houses and property destroyed. In A. D. 1737 happened the great Calcutta storm. In 1736 A. D. the river Megna rose six feet above its usual level at Lukhipoor. In A. D. 1833 Saugor Island was submerged 10 feet; the whole of the population, between 3,000 and 4,000 souls, together with some of the European superintendents perished; at Kedgeree a building, 18 feet high was completely submerged. The "Duke of York," East Indiaman was thrown high and dry in the rice fields near Fultah in the Hoogly and in 1848 A. D. the Island of Sundeep was submerged.—*(Calcutta Review.)*

The bore in the Irawady river is often severe, but in the Sitang river its fury is great and occasions much loss of life. It is 7 feet, but Burmans name 30 feet as the height to which it occasionally rises and this may perhaps be the case in the bends of the river, where the rush has attained its full speed, before being reflected to the next bend. Even in the Hoogly near the bend at Chandpal ghat, the pointed curling wave may be seen several feet high. The "*Bore*" of the Tsien-tang river, is famous in Chinese history. According to a Chinese proverb, it is one of the three wonders of the world, the other two being the demons at Tang-chan and the thunder at Lung-chan. As in other countries, it appears generally on the 2nd or 3rd day after the full or change of the moon or at what are called spring tides, and particularly in spring and autumn, about the time the sun is crossing the line. Should it so happen that strong easterly gales blow at these times the Eagre rolls along in all its grandeur and carries everything before it. Dr. Macgowan, gave an account of it at Hang-chow-foo. Mr. Fortune from a terrace in front of the Tri-wave temple saw, on a sudden, all traffic in the thronged mart suspended; porters cleared the front street of every description of merchandise; boatmen ceased lading and unlading their vessels and put out into the middle of the stream, so that a few minutes sufficed to give a deserted appearance to the busiest part of one of the busiest cities in Asia: the centre of the river teemed with craft from small boats to large barges, including the gay flower-boats, loud shouting from the fleet announced the appearance of the flood which seemed like a glistening white cable stretched athwart the river at its mouth as far down as the eye could reach. Its noise, compared by Chinese poets to that of thunder, speedily drowned that of the boatmen, and as it advanced at the rate of 25 miles an hour it assumed the appearance of an alabaster wall or rather of a cataract four or five miles across, and about thirty feet high, moving bodily onward. Soon it reached the advanced guard of the immense assemblage of vessels awaiting its approach, all intently occupied in keeping their prows towards the wave which threatened to submerge everything afloat: but their boats all vaulted, as it were, to the summit with perfect safety and, when the Eagre had passed about half-way among the craft, on one side they were quietly reposing on the surface of the unruffled stream, while those on the nether portion were pitching and heaving in tumultuous confusion on the flood, others were scaling with the agility of salmon the formidable cascade. This grand and exciting scene was but of a moments duration; The wave passed up the river in an instant, but from this point with gradually diminishing force, size and velocity, until it ceased to be perceptible, which Chinese accounts represent to be eighty miles distant from the city. A slight flood continued after the passage of the wave, but it soon began to ebb. The Chinese say that the rise and fall of the tide is sometimes forty feet at Hang chow. The maximum rise and fall at spring tides is probably at the mouth of the river, or upper part of the bay, where the Eagre is hardly discoverable. In the Bay of Fundy, where the tides rush in with amazing velocity, there is at one place a rise of seventy feet, but there the magnificent phenomenon in question does not appear to be known at all. It is not, therefore, where tides attain their greatest rapidity, or maximum rise and fall, that the wave is met with, but where a river and its estuary both present a peculiar configuration.—*Fortune A. Res. among the Chi. p.* 317. *Calcutta Review.*

BOREÆ. See Capreæ.

BORECOLE. Brassica oleracea, *var.* Scotch Kale. The winter greens of England and Scotland.

BOREE. Several towns of this name; one in L. 66° 40′ E. and L. 32° 21′ N., others in L, 72°. 53′ E. and L. 20°. 6′ N. in L. 74° 50′ E. and L. 21°. 32′ N, in L. 78° 59′ E. and L. 20° 48′ N. in L. 78° 35′ E. and L. 19° 55′ N. in L. 79° 30 E. and L. 24° 20′ N. and in L. 80° 8′ E. and L. 19° 38′ N. The word means old.

BOREGAUM, towns in L. 76°. 29′ E. and L. 21°. 38′ N. in L. 76° 43′ E. and L. 19° 20′ N. L 78° 18′ E. and L. 20° 44′ N. in L. 79° 32′ E. and L. 21° 10′ N. in L. 74° 13′ E. and L. 17° 36 N., L. 75° 53′ E. and L, 18° 25′ N.

BURENDA PASS or Bruang pass, in the Himalaya, in L. 31° 22′ N. and L. 78° 6′ E. in Gărhwăl-Kanáwar, leads from the Pábar river to the Báspa valley. The top of the pass is 15,296 f. according to Herb. and Hodgs. but 15,095 ft. according to Gerrard.

The source of the Pábar is 12,914 ft. Herb. and Hodgs. but 13,839 ft. Ger. It leads from the Baspa valley to the upper part of the Pabar or Tons river. *Thomson's Travels in Western Himalaya and Tibet, page* 75. *Schlagentweit.*

BORER, Eng. A name given to the larva of Coleopterous beetles, which injure coffee trees. There are two, the white and red borer and the chief of these is the Xylotrechus quadripes of Chevrolat. The large and rapid introduction of coffee growing into Ceylon and India has shown that the plant is liable to be attacked by many enemies and ignorance of that has been the cause of much loss. Coffee trees in Coorg have also been injured by the rot, a disease resulting from improper pruning. The rot attacks and decays the centre of the stem. In Coorg, when the tree is attacked by the borer the leaves become yellow and droop. The insects are generally about the diameter of a small quill, are always confined to the wood and never enter the bark until the larva has done its work, passed through the pupa stage and is about to escape in the form of a beetle. The eggs are deposited by the females near the root of the tree and the pupa borers tunnel up the heart of the plant.—*Dr. Bidie on Coffee planting.* See Bug.

BORGITE, a class of the Mameluk, of Circassian origin.

BORGONG, a river near the Cossya hills.

BORI, Mal. Croton seed.

BORI. A sweatmeat of Dera Ghazi Khan, a curious substance in yellow lumps, consisting of the pollen of the dib grass (*Typha elephantina*) and of T. augustifolia collected and kneaded together, perhaps with the aid of a little treacle or sugar.

BOR JUREE, a river near Jyrong, a Garrow village.

BORNA COTI, in hinduism, an imaginary city, supposed to lie under the equator at 90° from Lanca.

BOR NEIGURA, Bor Sorri and Hoorhoori, rivers near Mopea in Cherra punjee.

BORNELLA DIGITATA. *Adams.* A nudibranch or marine slug, which occurs in the tropical seas in the south of Asia at Aden and in the Straits of Sunda, and on the Madras coast. It has brilliant colours, with vermilion streaks and is delicately marbled and has waving elegant tufts. It swims by a lateral movement of the body.—*Dr. Cuthbert Collingwood, M. A., M. B., Rambles of a Naturalist, London,* 1868.

BORNEO, is the principal island of the Sunda group. It is divided by the equator into two unequal and extended parts, of which the southern is the larger. It is the greatest island on the globe after new Holland. If we comprise the numerous archipelagoes by which the great land is environed, this group may be said to occupy more than eleven degrees of longitude and about ten of latitude. The geographical position of the principal island is between 7°. N. L. and 4° 20' S. L., and between 106° 40' and 116° 45 E. Lon. Its length from north to south will be about 300 leagues, and its breadth varying from 250 to 150 leagues. Its superficies has been calculated by Mr. Melvill de Carnbee and published in Le Moniteur des Indes and it gives Borneo a surface of 12,741 square leagues or 6,992 myriametres; which makes it 2,589 myriametres greater than Sumatra, and 5,723 myriametres greater than Java.

Old documents make known to us that the Portuguese, Lorenzo de Gomez, was the first of the European navigators who approached the northern part of this island; he arrived in 1518 in the ship St. Sebastien on his route to China. We presume that he gave to the country the name of Brune, but he says that the natives term it Brannai or Brauni. The travellers who have recently penetrated into different parts of the interior, the Dutch Major, Muller, Colonel Henrici, the members of our scientific commission, Diard, S. Muller and Korthals, as well as the Rajah Brooke, assure us that the Dayaks, who form the aboriginal population of Borneo, do not use, and cannot even have any idea of a specific name appropriated to the whole extent of a country of which the sea board is even most often unknown to the savage and wandering tribes who are separated by great distances from each other, and who are dispersed in hordes of small numbers over the vast extent of one of the largest islands in the world. These different tribes are designated amongst themselves by the names which they give to the rivers on the borders of which they have established their abode; it is thus that all the Dayaks of the great river Dusen (the Banger of our maps) call themselves Orang Duson (men of Duson) and those of the river Sampit, Orang Sampit; the manuscript memoirs of Major Muller and of Colonel de Henrici make mention of a great number of tribes designated by the names of rivers which have their mouths on the western coast; in the north of Borneo, Mr. Brooke makes mention of Dayak tribes under the names of Sarebu, Sakarran, Lundu, Sibnuw, &c. established on the rivers which bear those names.—(*Journ. of the Indian Archipelago, No.* VI, *June* 1848, *page* 365.)

The interior is still, however, almost unknown. The existence of lofty ranges of mountains in the centre is undoubted; and in the north-west, as far as the country was penetrated by Mr. Spencer St. John, in 1858, the whole was found to be mountainous, each range becoming more lofty as he approached the interior, but presenting one uniform aspect of jungle covering hill and valley. From the summit of the great mountain Kina Balu, in the north-east of Borneo, 13,000 feet high, and when looking towards the interior in a southerly direction, Mr. St. John obtained a distant view of a mountain peak which he supposes to be very considerably higher than the one on which he stood, and to be situated very nearly in the centre of the island. The land on all sides gradually slopes towards the coast. Borneo may be said to bear the same relation to Eastern India that the continent of America has borne to Europe, being a region in which tribes inhabiting the remoter East have occasionally found a refuge from religious persecution and from the pressure of a superabundant population. Brazen images, ruins of temples, and other remains of hindoo civilization, are still to be seen on the southern coast. The shores are inhabited by nations totally unconnected with each other. The west is occupied by Malays and Chinese, the north-west by the half-caste descendants of the mahomedans of Western India, the north by the Cochin-Chinese, the north-east by the Sulu, and the east and south coasts by the Bugis tribes of Celebes. There are besides numerous tribes who live in prahus among the islands near the coast. The Dutch claims a territory exceeding 200,000 square miles; but all beyond a mere fringe of the coast was, until the recent exploration of a portion of the interior, absolutely unknown.

Its inhabitants are generally recognized as Malay and Kyan, and the Millanowe Dyak. The Malay are settlers from Sumatra, Java and Malacca along the coast of Borneo: the Dyak are a prior race and are divided into land and sea Dyak, the latter being richer and more powerful, those of the interior being broken up into innumerable clans, some of them being tributary to the Sultan of Brunai, some of them under the Dutch in the south and west of the island and some under the Sarawak Government. The Millanowe are on the north east of the Sarawak territory. They are of a fair complexion and are occupied with agriculture, trade and peaceful pursuits. The Kyan are a powerful tribe of about 100,000 souls, and occupy the country from the south of the kingdom of Brunai right away into the interior, they strongly resemble the Dyak.

The Dyak are generally well made, with a muscular well knit frame and are rather under than over the middle height. Their features are regular. Their colour is a deep brown, occasionally varying to a lighter shade. The Dyak dwell in very long houses occasionally large enough to contain a community. That portion of their creed which obtained the greatest influence over their mode of life, arose from a supposition which they entertain that the owner of every human head which they can procure will serve them in the next world. The system of human sacrifice was, upon this account, carried to so great an extent, that it totally surpasses that which was practised by the Batta of Sumatra, or, it is believed, by any people yet known. A man cannot marry until he has procured a human head, and he who is in possession of several may be distinguished by his proud and lofty bearing: for the greater number of heads which a man has obtained, the greater will be his rank in the next world. The chiefs sometimes make excursions of considerable duration for the sole purpose of acquiring heads, in order that they may be assured of having a numerous body of attendants in the next world. If they are at peace with their neighbours, they proceed in their canoes to the more distant parts of the country to which the numerous ramifications of the rivers afford them easy access. Upon their arrival near a village, if the party be small, they take up their position in the bushes close to some pathway, and attack a passer by unawares. If the party be large they are bolder in their operations, and an attempt will perhaps be made to surprise a whole village. For this purpose they will remain concealed in the jungle on the banks of the river during the day, and at night will surround the village so completely as to prevent the escape of the intended victims; and an hour or two before daybreak, when the inhabitants are supposed to sleep the soundest, the attack will be commenced by setting fire to the houses, and their victims are destroyed as they endeavour to escape. Apparently the practice is only general among those tribes inhabiting the banks of the large rivers, on which distant voyages can be made with facility, the Dyak race in the northern parts of the island being content with an occasional human sacrifice on the death of a chief. They had a craving for skulls; the sacrifice of a cock is sacred as with the Karen and Chinese and they believe that the Divine Being eats the spirit or essence of the offerings made to him. They have a tradition about a deluge, from which the Chinese, Malay, and Dyak escaped. The minor spirits, called "Antu" are largely worshipped. The name for the Almighty Good Spirit is Yaoah or Jowah, almost the same as the Hebrew form of Jehovah, He is also called Toppa and in his worship, women are the celebrants.

Head hunting is now scarcely heard of: they are brave, hospitable, simple, and truthful, loyal, grateful and are willing to receive instruction. Chastity before marriage is not insisted on and they marry when grown up. The men wear a narrow loin cloth passed between the thighs. The women have a still narrower stripe of cloth allowed to fall from the hips half way down the thighs and affords little concealment. The clans have different languages and they have no written character.

A writer in the Journal of the Archipelago, describes a race called Idaan occupying the northern part of Borneo, who suspended human skulls in their houses. St. John, in his Indian Archipelago, says that the dominant Malay and the colonists of China are an active and industrious but turbulent and intractable part of the population (*Reveu de deux Mondes*, II.) The Dyak, who in their physical and social characteristics resemble the Tarajah of Celebes (*Pritchard*, *Researches into the Physical History of Mankind*), the people in the interior of Sumatra, and the Arafura tribes of Papua, may be regarded as the aborigines of the Archipelago. But, though the name may be applied to all the wild tribes of the island, it is not so used by themselves. There are other natives in distinct localities with characteristics of their own. The Dusun, or the villagers of the north, an agricultural people, the Murut in the inland parts of Brune, the Kadians of the same country, an industrious peaceful nation, valuable for those qualities; and the Kayan, more numerous, more powerful, and more warlike than any other in Borneo. They are an inland race inhabiting a district extending from about sixty miles up the interior from Tanjong Barram to within a similar distance on the eastern shore. Fierce, reckless of life and hot-blooded in their nature, they are nevertheless represented to be hospitable, kind and faithful to their word, and honest in their dealings. Next to them are the Millanowe southward and westward, living on rivers near the sea—an industrious intelligent people, who occasionally take heads, but have not the ferocity of the Kayan. The Tatar, Balanian, and Kanowit have dialects of their own, and are wild and savage in their manners.

Another writer says that there are eleven tribes located between the Malay of the coast, and the Káyán, namely the Kanawit, Bakatan, Lugat, Tan-yong, Tatau, Balinian, Punan, Sakapan, Kajaman, Bintulu and Tilian the majority of whom are tributary to the Káyán. The six first mentioned are all more or less tatooed, both male and female, and certainly have all sprung from the one called Kanawit, who, in habits, closely assimilate to the Dyak of all Saribus whose neighbours they are. The tribes Punan, Sakapan and Kajaman are the chief collectors of camphor and bird's nests. The trees which are abundant, and produce excellent timber, amount to upwards of sixty species, many of the other kinds not useful as timber trees, are, or might be valuable for making charcoal, pot-ash, pearlash, &c. Several kinds of oaks are found in the forests, but being of quick growth and soft wood, their timber is not esteemed.—(*Low's Sarawak, p.* 59 *to* 61.) Ebony is abundant in many parts of the island, particularly on the west coast, but it is said to be inferior to that from the Mauritius, although it has been found a very profitable export to China. In the neighbourhood of the Lundu river, in the Sarawak territory, are large forests of it.

At the mouths of most of the rivers on the east coast of Borneo, and also on the north and north east coasts, are found the Orang Baju, a kind of sea gipsies. They dwell in boats of eight or ten tons burthen, which are covered, when in harbour, with a roof of matting. Each boat contains about fifteen inhabitants, men, women, and children, who employ themselves chiefly in catching and curing fish and trepang, and in making salt from sea-weed. The latter they dispose of to the Dyaks. The women are equally skilful with the men, both in fishing and in the management of the boats. During the south-east monsoon, when the weather is fine in the southern parts of the island, they cruize about Passir and Pulo Laut; but when the monsoon changes, and the weather becomes tempestuous, they sail on the northern parts of the island, which at this season are distinguished for their freedom from storms or other annoyances.

The interior of the island is occupied by tribes of the brown race, whose warlike habits, and skill in the use of missiles, will account for the disappearance of a less civilized race from the southern and western parts of the island. The island of Borneo bears the same relation to Eastern India, that the continent of America bears to Europe, being a country in which the various tribes inhabiting the further east may find a refuge from religious persecution, or escape the disadvantages of over-population in the mother-country. Thus we find the coasts of the island to be inhabited by several nations, totally unconnected with each other, governed by their own laws, and adopting their own peculiar manners and customs. The west coast is occupied by Malays and Chinese, the north-west coast by the half-caste descendants of the Moors of Western India; the north part by the Cochin Chinese; the north-east coast by the Sulu; and the east and south coasts by the Bugis tribes of Celebes. In addition to these, there are no fewer than three distinct tribes, living in prahus, and wandering about the shores of the island: the Lanun from Magindano; and the Orang Baju and Orang-Tidong, source unknown. Except on a few spots on the north-west coast, where the Dyaks are to be met with near the sea, the prior tribes have all retired into the interior. The Dyak, who are the Orang-Benua, or aboriginal inhabitants of Borneo, constitute by far the most interesting portion of its population. They are scattered in small tribes over the face of the island, those inhabiting the banks of the large rivers being generally under the dominion of one more powerful than the rest; but the tribes which reside in the depths of the forests, where the communication between them is more difficult, are generally perfectly distinct from each other, and these people would scarcely know that other human beings existed beside themselves, were not individuals of their little communities sometimes cut off by the roving warriors of a distant, and more powerful tribe. The various tribes are said to differ considerably from each other, but Mr. Earl saw individuals belonging to several distinct tribes, who, with the exception of a difference of dialect, might be recognized as the same people, those who lived entirely on the water being much darker than the rest. It is said by the Dyak themselves, that some parts of the interior are inhabited by a woolly haired people; but as they also assert that men with tails like monkeys, and living in trees, are also discoverable, the accuracy of their accounts may be doubted. He met with no Dyak who had seen either, but as a woolly-haired people is to be found scattered over the interior of the Malay Peninsula, their existence in Borneo seems by no means improbable. The Dyak are of the middle size, and, with the exception of those who are continually cramped up in their little canoes, are invariably straight-limbed, and well formed. Their limbs are well rounded, and they appear to be muscular, but where physical strength is to be exerted in carrying a burthen, they are far inferior to the more spare bodied Chinese settlers. Their feet are short and broad, and their toes turn a little inwards, so that in walking they do not require a very wide path. The native paths are found very inconvenient by a European traveller. The paths used by the Dyaks and Chinese being generally worn down several inches below the surface of the soil, and, as they are very little wider than the foot, pedestrain exercise proves both painful and fatiguing.. The Chinese guides told him that he should soon become accustomed to these by-ways, from which he judged that the settlers had adopted the native mode of walking with one foot before the other, since their arrival in the country. Their foreheads are broad and flat, and their eyes, which are placed further apart than those of Europeans, appear longer than they really are, from an indolent habit of keeping the eye half closed. The outer corners are generally higher up the forehead than those nearer to the nose, so that were a straight line drawn perpendicularly down the face, the eyes would be found to diverge a little from right angles with it. Their cheek-bones are prominent, but their faces are generally plump, and their features altogether bear a greater resemblance to those of the Cochin Chinese than of any other of the demi-civilized nations in Eastern India. The Laos tribes inhabiting the inland parts of Cochin China and Cambodia are undoubtedly the same race as the Dyak, speaking a dialect of the same language; and, as the Cochin Chinese are probably descendants of these people, civilized by communication with the Chinese, the resemblance may be easily accounted for. The Cochin Chinese, however, are physically superior to the Dyak, the natural results of a different mode of life. The hair is strait and black, and is kept cut rather short by both sexes, but if permitted, would grow to great length. Some of the Dyak women who are married to Chinese adopt the fashion of wearing tails. He never saw a nearer approach to a beard among the men, than a few straggling hairs scattered over the chin and the upper lip. The Dyak countenance is highly prepossessing, more than that of any people he had yet encountered. The countenances of the Dyak women, if not exactly beautiful, are generally extremely interesting, which is, perhaps in a great measure owing to the soft expression given by their long eyelashes, and by their habit of keeping the eyes half closed. In form they are unexceptionable, and the Dyak wife of a Chinese, whom he met with at Sinkawan, was, in point of personal attractions, superior to any eastern beauty who had yet come under his observation, with the single exception of one of the same race, from the north-west coast of Celebes. This one he met with at Sourabaya soon after her arrival from Celebes, she was, for a native, extremely fair, and her portrait would not have disgraced the "Book of Beauty." In complexion, the Dyak are much fairer than the Malay from whom they also differ greatly in disposition and general appearance, although not so much as to lead to the conclusion that they could not have sprung from the same source, giving rather the idea that the cause of the dissimilarity has proceeded from the long disconnection of the Malay from the original stock, in addition to their admixture and intercourse with foreign nations. The Dyak are a much superior people to the Malay, although the latter affect to consider them as beings little removed from the orang-outan. The most numerous of the aboriginal tribes are found congregated in villages on the banks of the rivers and the large inland lakes; but they also possess several towns of considerable size. The capital of the most powerful tribe on the west coast is Sigao, a town about forty days journey up the Pontiana river, which has a population of several thousands. The Dyak inhabit thatched bamboo houses, erected upon piles, those belonging to each family or petty tribe being joined together by means of a stage or verandah running along the front. Many of the small villages are defended by stockades, and the ladders by which they ascend into their dwellings are always pulled up when they retire to rest at night. Under these dwellings the pigs are kept; for, although some of the tribes in the vicinity of the Malay have adopted the mahomedan religion, they are not sufficiently rigid in their observance of its tenets to abstain from the use of pork. The Dyak cultivate rice in large quantities, as it forms their principal vegetable food, their animal sustenance being pork, fish and the flesh of deer and other animals which are procured by the chase. Some of the tribes possess bows and arrows, but the sumpit or blow pipe, a wooden tube about five feet long, through which small bamboo arrows are shot with great precision, is in more general use. The arrows are steeped in the most subtle poison, which destroys birds and smaller animals, when struck with them, almost instantaneously, a slight wound from an arrow on which the poison is strong, being said to occasion inevitable death, even to man. The effects of weapons of this description are always exaggerated by those who use them; the poison therefore, is not, in all probability, so destructive to the human species as it is represented; and although the Dyaks assert that no antidote is known, yet the preparation of the poison being similar to that practised by the aboriginal inhabitants of Celebes, for which a remedy has been discovered, the people of Borneo are probably acquainted with it. They show no hesitation in eating animals which have been killed by their arrows, taking the precaution, however, of removing the flesh immediately adjacent to the wounded part. The poison, which is called ippo throughout the island, consists of the juice of a tree, and its mode of preparation appears to be perfectly similar to that practised in Java, and other islands where it is employed.

Borneo, as a mineral country, is perhaps the richest in the East ; producing gold, coal, antimony, and iron, while caoutchouc and gutta percha, are amongst its vegetable products.

The coal and iron fields of the Balawi or Rajang are more extensive than any yet discovered on the island. From the river Baram, coal is traced to the upper parts of the Bintulu, and thence southward to the Rajang river, on the left bank of which, at Tujol Nang, there is a seam exposed upwards of thirteen feet in thickness. At different other parts of the river and also in several of its branches, coal is found in abundance. From Tujol Nang the strike of the coal is southward across Dragon's plain. It is again found in the river Lang-Tha (a distance from the former place of about fifty miles) where it is extensively exposed on the surface, and has been in a state of ignition for several years. Iron ore of a quality yielding from sixty to eighty per cent. of iron abounds in the Baluwi or Rajang district, from about forty miles from the coast to the source of the river, or over a district comprising nearly one-half of the extreme breadth of the island. The iron manufactured from the ore of the above district is much preferred to that of Europe by the Malays and other natives of Borneo as being superior, doubtless owing to the charcoal being the melting material used, as in Sweden.

The varieties of animal life are great, some species of Actinia, of enormous size occur in the China seas, and on the coast of Borneo and fish live within them. Of 29 species of birds in Borneo and 21 in Sumatra, 20 are common to both islands. Of 29 in Borneo and 27 in Java, 20 are common to both islands. Of 21 of Sumatra and 27 of Java, 11 are common to both islands.

The Malay of Borneo, firmly believe in ghosts. If a man die or be killed, they are afraid to pass the place.—*Wallace* I, 161. *Journal of the Indian Archipelago, No.* 2, *February* 1849, *p.* 141. *Vol.* III. *John's Indian Archipelago, Vol.* II. *p* 265. *Quarterly Review, No.* 222, *p.* 497. *Marryat's Indian Archipelago, p.* 10. *Earl's Indian Archipelago, p.* 270. See Tawee Tawee islands, India ; Katiow ; Jintawan ; Orang Laut ; Malay ; Mindoro ; Legetan Islands ; Soloo Archipelago ; Kyan ; New Guinea; Ladrone Islands; Lawang ; Marco Polo.

BORNEO CAMPHOR, See Miniak Kruing Camphor ; Kruing.

BORO-BODOR. A great buddhist temple in Java, with figures similar to those in the buddhist temple at Gyah.

BORODHA, URIA. Bauhinia variegata.—*Linn.*

BORO-JUAN, BENG. Ptychotus ajwan.—*D. C.*

BORO-KOLEE, TEL. URIA. This tree, supposed to be a species of Zizyphus, has an extreme height of 30 feet, circumference 3 feet, height from ground to the intersection of the first branch 8 feet. Planks, doors, boxes, matchlock stocks, and palanquins are made of its wood. The leaves pounded and mixed with turmeric are supposed to be efficacious in curing rheumatism. The seeds are also used medicinally in diseases of infants. The tree yields a lac. The large trees are scarce but young trees very common.—*Captain Macdonald.*

BORRERA ASHNEII.—*Royle.*

Chulchilhera. HIND.

A lichen of the Himalaya : with ammonia it gives a reddish brown colouring matter, and is used accordingly as a dye stuff. Dr. J. D. Hooker found only this Borrera, on the Donkia pass of the Himalaya, at an elevation of 22,000 feet ; it migrates over the lofty slopes and ridges, blown about by the violent winds.—*Royle ; Hook. Him. Bot. O'Shaughnessy, page* 672. *Z. in Indian Field.*

BORRO. See Bodo.

BORSTELS, DUT. Bristles.

BORSTEN, GER. Bristles.

BORT SAUCHER, RUS. Biscuits.

BORYSTENES. See Kherson.

BOS. A genus of Bovine animals, the Bovinæ, of which also are the musk ox, the Bisontines or bisons, the Taurines or Oxen, and Bubalines or buffaloes. These inhabit cold, temperate and hot climates, the Taurines of tropical countries, however, obtain a cooler atmosphere on the mountains, though the humped cattle seem proper to the hottest regions of the old world : The Bisontines subdivide into the bisons proper and the yak.

The Indian Gour, *Bos gaurus*, the Gyal of Orissa, Indian sportsmen persist in calling a bison.

All Bisontines have cylindrical horns, very slight naked muzzle, long, shaggy hair, especially on the head, chin, and fore-quarters and the tail is short, the Bisontines subdivide into bisons proper and the Yak.

The Caucasian bison (B. Caucasicus) is still found on mount Caucasus from the river Kuban to the sources of the Pish. The traveller Bell mentions a kind of bison, under the term Urus or Uhr-ox, in the country of the Tzulimm Tartars, and the Yak seems to occur there both wild and tame.

The Yak, *Bos poephagus* or *B. grunniens*, or *Poephagus grunniens*, in form, approaches the Taurines. There is less inequality of the fore and hind quarters, still 14 pairs of ribs, long hair on the fore-quarters, and pendant from the flanks, but the most striking feature is the Choury tail, the horns are longer than in the modern typical Bisons, and their tips curve considerably backwards —instead of the rigid semicircular flexure in, at least, the bulls of the Bisons proper. All appear to have the same grunting voice. The general aspect of the Yak, it may be added, is distinctly *Bisontine*, and it carries its head low, like the rest of the sub-group. The Yak is indigenous to High Tibet, and especially to Eastern Tibet, where they are still tolerably numerous in the wild state. It is extensively domesticated, and is the ordinary tame cattle of that elevated portion of the globe. The wild animal is known as the *Dong* or *Ban Chour*.

The Banting, or Sumatran ox, the Bos banting, *Raffles*; B. leucoprymnus, *Quoy* and *Gaimard*, B. Sondaicus, *Muller*, is a native of the Malay peninsula, Martaban, Java, Borneo and Bali but is not in Sumatra, Celebes, or any of the Philippine Islands.

Another wild Ox, called Saladang by the Malay, seems to occur along with it.

The Buffalo, Bos bubalus, of *Brisson*, is found wild, and the tame one is all over S. E. Asia, and is distinguished by its large flat horns some curved and some long (spirocerus and macrocerus.) Its ribs are large, flat and white. It is the buffalo, buffle and Büffel of the English French and Germans, and B. Arna, *(Hodgson)* is one variety and the Manilla buffalo is another. It is the Bhains, Mhains, HIND. of India, Karbo, Malay. The domesticated buffalo is largely used for burthen and draft.

The Gayal or Bos frontalis, *Lambert*.

Bos Gayeus, *Colebrooke*.

Gobay goru	BENG.	Shial	KOCH-HI.
Gavai	HIND.	J'hong-nua	ARRAKAN.
Gayal	„	Nunec	BURM,
Gau-jangli	PERS.	Gau-vera	SINGH,
Methana	KOCH-HI.		

It is found wild in the forest from Silhet to Arracan, and is also domesticated and breeds with the common cattle. It is nearly of the size and shape of the English bull, has short horns, a short tail, a large dew lap, no mane or hump.

The Gour or Gaur, *Bos gaurus*.

Bos gour.—*Trail.* | Bos aculeatus, *Cuvier*.

Occurs in the mountainous parts of India, it has limbs more like a deer. Indian sportsmen call it the bison.

The Zebu or Bos Indicus of Linnœus, is the B. domesticus, B. Indicus, B. Zebu, and B. Taurus Zebu of authors and has many English synonyms, but that of Brahminy Bull is the most usual. They occur domesticated throughout India, all Southern Asia and the Archipelago, and are largely used for draught.

Naturalists have generally made two divisions of cattle, the humped kinds of tropical countries, the Zebu or Bos Indicus of India, and the common unhumped cattle, the Bos Taurus. As with dogs and pigs, the domestic cattle are certainly from more than one stock. Humped cattle were domesticated in Egypt as early as the 12th dynasty, that is B. C. 2100, and they have greater osteological differences from common cattle than the fossil species of Europe B. primigeneus, longifrons and frontosus, have from each other, and their habits also differ. The Zebu of India seldom seeks the shade and never goes to stand knee deep in the water like the cattle of Europe. They run wild in parts of Oudh and Rohilcund and can maintain themselves in a region infested by tigers. They have given rise to many races. The European breeds of humpless cattle are extremely numerous perhaps fifty in number. The genus Bos readily yields to domestication. The three fossil-species are the parents of those of Europe, and the B. Indicus, the Yak, the Gayal, the Arni and the Bubalus have all been domesticated.—*Darwin Eng. Cyc.* See Bibos ; Bovidæ ; Bubalus ; Gavæus ; Mammalia ; Poephagus.

BOSCA TRINERVA, *Roxb.*, a large tree of the Circar mountains : the wood is not known, nor if it be used in the arts.—*Rohde MS. S.*

BOSCAWEN, a British admiral who, in 1749, sailed for India with a great armament. On his arrival at Fort St. David, he took command of all the land and sea forces, and marched against Pondicherry, to which he laid siege on 23rd June 1748, but raised the siege in November. In 1749 he took part in the war against Tanjore. In August he received Madras from the French, and in October returned to England.

BOSTAN AFROZ, HIND., Celosia cristata.

BOSWELLIA. A genus of plants, of which the B. glabra and B. serrata, syn. of B. thurifera occur in India, they yield a fragrant gum resin called Luban, *Arab*, also Kundur *Arab*, supposed to be the Λιβανος of Theophrastus, and the Thurea virgo of the Romans. It seems to be the olibanum and identical with the frankincense that was used by the ancients in their religious ceremonies. Dr. Carter described, and figured the frankincense tree of Arabia, and Captains Cruttenden, Vaughan and Kempthorne have noted the presence of frankincense trees in the Somali country. Dr. Birdwood described three of these trees with figures, and is of opinion that the Frankincense, or Olibanum of commerce, is obtained from the Somali country, and from Hadramaut in Arabia, being partly re-exported from India to Europe. He described five plants under this genus, and named the three new ones—Boswellia Carterii (Mohr Madow of the Somali); Boswellia Bhau Dajiana (Mohr Add of the Somali), and Boswellia Frereana (Yegar of the Somali.)

The frankincense of India is the produce of a species of Boswellia. Olibanum is yielded by Boswellia serrata or B. thurifera. B. glabra yields a resin, also used as incense and as pitch, and resins analogous to olibanum are obtained from species of Croton, Bailleria, Amyris, Icica, and Lœtia, of America.

BOSWELLIA GLABRA.—*Roxb.*

Its gum resin.

Salaee	HIND.	Moraeda	TAM.
Koonthareekum	MAL.	Googola	TEL.
Koondricum	TAM.	Googoolapoo chettoo	TEL.

A small tree; leaves pinnate, deciduous: flowers terminal, small, white with a red nectary, anthers yellow; yields the gum salai, a resin, which is used as incense and for pitch in some parts of India. It is a native of the mountainous districts of Coromandel. This tree is very rare to the west of the Jumna. It yields the odoriferous gum resin called "gúgal."—*Powell, Hand-book. Econ. Prod. Punjab. Roxb. Rohde MS. S.* See Olibanum.

BOSWELLIA SERRATA.—*Stach.*

B. thurifera Coleb.—*Roxb. II.* 283.

Salai	BENG.	Luban	BENG.

This tree grows in the Coromandel mountains, in the south Concan, in the jungles above Rajoor, in the hill of Shendoor in Belgaum. It produces the gum resin olibanum, (Koondurroo, Hind.) which is chiefly used as a grateful incense, but given internally is stimulant, astringent and diaphoretic, *Voigt*—148. *Roxb. II*, 383.

BOSWELLIA THURIFERA.—*Roxb.*

Boswellia serrata.—*Stach.*

Kundur; Zuchir	AR. GUZ.	Ganda Bareza	HIND.
Bistuj	„	Kundur	PERS.
Luban	BENG.	Kundurya	SANS.
Salai ?	„	Lubanya	SYRIAC.
Luban.	DUK. HIND. PERS.	Parangi Sambrani	TAM.
Awul kandur	HIND.	Kunduru	TEL.
Dup-salai	HIND.		

A tall tree with pinnate leaves, which yields the olibanum, it grows on the hills of the Deccan; in the Koncan jungles, above Rajoor, in the hill of Shendoor, in the Belgaum collectorate, in Bundlekund, it is a native of the mountainous tracts of Central India, and very common in the Shahabad country. Dr. Hooker remarks of this plant, that, in ascending from Belcuppee in Behar to the height of 1,360 feet, he came upon a small forest of the Indian Olibanum *Boswellia thurifera*, conspicuous from its pale bark and spreading curved branches, leafy at their tips; its general appearance being a good deal like that of the mountain ash. The gum, celebrated throughout the East, was flowing abundantly from the trunk, very fragrant and transparent. The *Salai* or *Salar* tree, *Boswellia thurifera*, remarks Dr. Irvine, is plentiful in the Ajmeer hills: the gunda birosa is prepared from the gum resin of this tree, and is similar in appearance and qualities to Venice turpentine. It is brought from Mewar, Haraotee and the Shekhawattee hills: and is considered stimulating: an oil is distilled from it, said to cure gonorrhœa. It is used also in ointments: much used in painting and by the lakheri, one maund costing twelve rupees from the Shahabad country, Dr. O'Shaughnessy obtained fine specimens of the resinous products there called *sale gond or sale lassa.* At Chandalgur it is termed *gunda biroza*, and in the dry state *sukha biroza.* Dr. Hamilton, however, thought the English olibanum to be the produce of an Amyris, partly because he could not find that the "sale" resin was used as incense by the hindoos. The tree, also, grows at Chota Nagpore where its wood is soft and white. The B. glabra and B. thurifera both furnish the male frankincense of Dioscorides. The resin olibanum occurs in reddish or pale yellow tears, oval, oblong, and obtuse, sometimes, in dense, opaque brittle masses. The gunda barosa of the bazars is soft, ductile, opaque, greenish and white. The odour is balsamic and resinous, especially while the resin is burning; the flavour balsamic, and rather bitter. The powder, is citron yellow. It is frequently adulterated by dammer, sandarach, and other cheaper resins; when chewed the hard variety softens, and dissolves partially in the saliva, which it renders white and emulsive.—*O'Shaughnessy, Hooker Him. Jour. p.* 29. *Med. Top. of Ajmeer. Cal. Cat. Ex.* 1862. *Mr. Rohde, MS. S.* See Gums and Resins.

BOT, also written Bhot, the race occupying Tibet, Bhutan, Ladakh and Balti. Their language is the oldest of the Turanian formations. See Bhot.

BOTA KADIMI; also, Botta kadapa chettu, TEL. Nauclea parvifolia, *R.* I. 513; the Telugu is from the resemblance of the capsule to the stamp used for impressing the *bottu* or sectarial marks of the *Madhwa-charya* bramins.

BOTANY. There has not been any branch of Natural Science, in its relation to India and the East, so devotedly followed out as Botany. Whether we regard the personal labour undertaken or the vast sums expended by its cultivators, or the important advantages which Eastern countries have derived from them, their names ought ever to be kept in remembrance. During the past three hundred years, amongst others, are Governor Henry van Rheede, George Everhard Rumphius, Leonard Plukenet, John Gerard Koenig, Dr. John, Klein, Rottler, Sonnerat, Thunberg, the elder John Burmann and the younger Nicholas Laur, Burmann, Hermann. Father Loureiro; Dr. William Jack, Drs. Jones, Fleming, Hunter, Anderson, Berry, Heyne, Buchanan Hamilton, Russell, Noton, Shuter, Govan, Finlayson, Dr. William Roxburgh, Dr. Wallich, Dr. John Forbes Royle, Blume, Horsfield, Moon, Voigt, Jacquemont, Graham, Mr. Bentham, Dr. William Griffiths, Dr. Wight, Dr. J. D. Hooker, Dr. Thomas Thomson, Dr. J. D. Stewart, Dr. Hugh Cleghorn and Major Beddome, all of whose names are familiar to the scientific world of Europe and notices of them will be found in this work, under their respective headings.

Agricultural Societies and their gardens have been formed at Calcutta, Saharunpore, Dapoolie in Bombay, Madras, Bangalore, and Ootacamund, whose specially adopted province it is to attend to the introduction of new plants into India and to the useful application of the natural products of the country. Dr. Royle, writing many years ago on the practical benefits of the Calcutta Botanic garden, mentions amongst them, the diffusion of the teak, mahogany, logwood, and casuarina, though the teak is of slow growth, requiring from sixty to eighty years to attain the proper size and maturity for ship-building.

Among the plants which appeared to him worthy of introduction from America into India, the different kinds of Ipecacuanha as Cephælia Ipecacuanha affording the best, and Psychotria emetica and P. herbacea, Richardsonia brasiliensis, rosea, and scabra, which give inferior kinds; Sarsaparilla, Jalap, Quassia, Guaiacum, Cusparia, Cascarilla, Copaifera, yielding Balsam of Copaiba; Balsams of Tolu and Peru Trees; Polygala senega, Krameria triandra; Coutarea speciosa, a substitute for Peruvian Bark, and Baccharis genistelloides is another; Dipterix odorata yielding the Tonquin Bean; Brazil Wood, Cæsalpinia braziliensis; Rosewood, Jacaranda ovalifolia; Hevea guianensis yielding caoutchouc, as well as the Lobelia yielding the same substance; Schinus molle; Gum elemi tree; Bertholletia excelsa, or Brazil nut tree, as all worthy of introduction as well as others—as the Cabbage Palm; Araucaria imbricata; Orchideæ, among them the Vanilla; Passion Flowers and Fuchsias, as ornamental plants; Ilex Paraguensis, affording the Mate Tea, might also be introduced, and from the East of Africa the Calumba plant and Telfairia volubilis. Many of the Cruciferæ are cultivated as oil seeds; it is worthy of experiment whether those cultivated in Europe for the same purpose, as Brassica napus and campestris, are more productive than the Indian species. Black and white mustard might, without doubt, be successfully cultivated, if introduced. Vines of a superior kind would be a great acquisition in northern India. The Carob tree is particularly desirable. The Olive, there is great probability, would succeed, as also the Cork-tree, with the Ilex, Kermes, Dyer's and Barbary oaks. The Laurel and Sweet Bay, Manna, Ash, Pistachio, Mastich, and Venice Turpentine-trees; the species of Cistus yielding ladanum; Styrax officinalis yielding Storax; the species of Astragalus affording tragacanth. Sumach, Savine, Scammony, and Colocynth, might all be grown, as well as some of the drugs of colder climates, as Foxglove, Belladonna, Hemlock, and many others. With these also some African plants,, as Zizyphus lotus; Dragon's Blood Tree; Acacia vera, nilotica and Seyal; and from Persia, Gum Ammoniac and galbanum with a myrrh from Arabia.

The total estimated number of Indian species likely to be included in Hooker and Thomson's Flora Indica are 12,000 to 15,000. The climate of India is generally tropical, and even on mountains of 4,000 to 5,000 feet, the vegetation is temperate. The perennially humid forests are uniformly characterized by the prevalence of ferns and at elevations below 5,000 to 7,000 feet, by the immense number of epiphytal Orchidaceæ, Orontiaceæ and Scitamineæ. They contain a far greater amount of species than the deer forest of N. India, and are further characterized by Zingiberaceæ, Xyrideæ, palms, Pandaneæ, Dracæna, Piper, Chloranthus, Artocarpeæ and Fici; the Urticaceæ, Araliaceæ, Apocyneæ, shrubby Rubiaceæ, Aurantiaceæ, Garciniaceæ, Anonaceæ, Nutmegs and Dipterocarpeæ.

In the Himalaya, the truly temperate vegetation supersedes the subtropical above 4,000 to 6,000 feet, an elevation at which there generally is an annual fall of snow.

Several species of Australian genera, Myrtaceæ, the Leptospermum, Bæckia and Metrosideros, are found in the Malay peninsula. The Malayan Archipelago type forms the bulk of the flora of all the perennially humid regions of India, the Khassya mountains, the upper Assam valley, the forests of the base of the Himalaya from the Brahmaputra to Nepal, the Malabar Coast, Ceylon, and the whole of the Malayan peninsula, many of the plants being identical with Javanese mountain species. Gualtheria nummularia ranges from the N. W Himalaya to Java, and the more conspicuous of the trees common to Java and India are the Sedgwickia cerasifolia, *Griff*, which is undoubtedly the Liquidamber altingia, *Blume*, Marlea extending from China to Kashmir. The curious Cardiopteris lobata of Java, is also a native of Assam, and several oaks and chesnuts, Antidesmæ, a willow, and Myrica, are common to Khassya and Java.

The Chinese type is abundant in the temperate regions of the Himalaya, extending westward to Garhwal and Kumaon, but is most fully developed in Sihkim, Bhotan and the Khassia, and, as examples, are species of Aucuba, Helwingia, Stachyurus, Enkianthus, Abelia, Skimmia, Bucklandia, Adamia, Benthamia, and Corylopsis, all of them genera that have been regarded almost exclusively Japanese and Chinese; also Microptelea parviflora, Hammamelis Chinensis, Nymphæa pygmæa, Vaccinium bracteatum, Quercus serrata, Illicium, Thea, Magnolia, the Schizandreæ, Lardizabaleæ, Camellia, Deutzia, Hydrangia, Viburnum, Corneæ; Houttuynia, Bowringia, Wikstræmia, Daphneæ, Henslovia, Scepa, Antidesma, Benthamia, Goughia: Euryale ferox which is wild in the Gangetic delta, and is found as far westward as Kashmir, is abundant in China, and Nepenthes phyllamphora, a native of the Khassya mountains, is also found at Macao and eastward to the Louisiade Archipelago.

European plants abound in India: 222 British plants extend into India and a multitude of mountain plants and many of the most conspicuous ones of Europe range from the coasts of the Levant and the Black sea to the Himalaya, as Corylus colurna, Quercus ilex, Ulmus campestris, Celtis Australis C. Orientalis. Few European species, comparatively extend into Nepal and still fewer occur in Sikkim.

Egypt, Southern Arabia, the warmer parts of Persia, Beluchistan, Sind and the Punjab, have a remarkable similarity of climate. Many north African or Arabian forms extend throughout all the drier parts of India, others are restricted to northern and western India, and though tropical Asia and Africa are separated by a vast expanse of ocean, there is a great similarity in the families of the trees and shrubs and an affinity can be traced between the mountain vegetation of western tropical Africa and that of the peninsular chain.—*Royle on the productive resources of India. Wight's Prodromus Floræ Indicæ. Hooker et Thomson's Flora Indica.*

BOTANG, Hind. Dolichos uniflorus; also Juglans regia.

BOTAURUS STELLARIS. 'Common Bittern' of Europe, Asia, all Africa: common in India.

BOTEL TOBAGO XIMA, great and little, extend from lat. 21° 58' N. to long. 121° 36' E. the former 7½, and the latter 3½ miles long.

BOTER. Dut. Butter.

BOTLA BENDA, Tel. Abutilon Indicum, *W. & A.*—Sida Asiatica, *R. iii.* 179.

BOTOENS, Port. Buttons.

BOTONES, Sp. Buttons.

BOT-PA, a race occupying Ladak, or little Tibet. They speak the Tibetan language, and are buddhists, with a hierarchy of monks called Lama. See Bhot. Bot.

BO-TREE, Anglo-Singh. Ficus religiosa, one of these is to be found within the precincts of every buddhist temple in Ceylon, and it is frequently met with in deserted localities, or near the sites of ancient villages; but the occurrence of a solitary Bo tree, with its circular buttress of stonework round the stem, indicates the existence, at some former period, of a buddhist temple in the vicinity. The planting of the Bo tree in Ceylon, a ceremony coeval with, and typical of, the introduction there of buddhism is one of the most striking passages in the Mahawanso; and a tree of unusual dimensions, which occupies the centre of a sacred enclosure at Anarajapoora, is still reverenced as the identical one which the sacred books record to have been planted by Mehindu, 306 years before the Christian era consequently in the year 1900, it will be 2207 years old. So sedulously is it preserved, that the removal of a single twig is prohibited, and even the fallen leaves, as they are scattered by the wind, are collected with reverence as relics of the holy place. On the altars, at the foot of these sacred trees, the Buddhists place offerings of flowers, and perform their accustomed devotions. At Anarajapoora, another account says, it was planted in the 18th year of the reign of king Devenipiatissa or B. C. 288. According to tradition it was beneath a Bo tree that Goama became a Buddha.—*Tennent's. Ceylon. Christianity in Ceylon, p.* 335. *Hardy's Eastern Monachism, p.* 434. See Inscriptions, p. 384.

BOTRYCHIUM VIRGINICUM. This large succulent fern grows plentifully in the Raklang Pass in the Sikkim Himalayas; it is boiled and eaten, both there and in New Zealand. Indeed ferns are more commonly used for food than is generally supposed. In Calcutta, the Hindoos boil the young tops of a Polypodium with their shrimp curries; and both in Sikkim and Nepal the watery tubers of an Aspidium are abundantly eaten. So also the pulp of one tree-fern affords food, but only in times of scarcity, as does that of another species in New Zealand (Cyathea medullaris): the pith of all is composed of a coarse sago, that is to say, of cellular tissue with starch granules.—*Hooker. Him. Jour. p.* 292. See Ferns.

BOTRYTIS BASSIANA. See Dry Rot.

BOTTA. A native of France who along with Mr. Layard made large researches at Nineveh. During the entire period of his excavations, M. Botta sent to Mr. Layard not only his descriptions, but copies of the inscriptions.—*Layard's Nineveh. Vol. I, p.* 13-14.

BOTTEGHE in Syria, their proprietors are generally Greeks with some Italians.—*Skinner's Overland Journey, Vol. I, p.* 23.

BOTTELLAS. Sp. Bottles.

BOTTIGLIE, also FIASCHI. It. Bottles.

BOTTLE GOURD. Eng. Syn. of Lagenaria vulgaris, Ser. Calabash.

BOTTLES. Eng.

Bouteilles	Fr.	Kacha ; buli ; balang ;	Malay.
Bouteillen	Ger.	Bululki	Rus.
Butli	Anglo Guz. Anglo Hind.	Bottellas	Sp.
Bottiglie,	It	Buddigall	Tam.
Fiaschi	It.	Budlu	Tel.

These glass or stone-ware vessels for holding liquids are of various shapes and sizes. A bottle manufactory was once established in the vicinity of Madras, but it has long been discontinued and bottles of every kind are now imported from Europe into India. The leather bottle, "budla," in which the people of India carry ghee and oil, is manufactured in many places by stretching skins over a clay model which is afterwards broken and shaken out.

BOTTONI. It. Buttons.

BOTTU-KURU CHETTU. Tel. Pachcha botuku. Tel. Cordia polygama, R. i. 594.

BOTTU, See Hindoo.

BOUCEROSIA AUCHERI. *Dne.*

Chungi	Hind.	Pawanne	Panj.
Char-ungli	,,	Pauwauke	,,
Panj-angusht	Pers.		

This plant is found in the N. W. Himalaya, Trans-Indus and Salt Range, up to 3,000 feet. Its stems, 4 or 5 inches long resemble the fingers of the hand, are juicy and generally eaten raw, and deemed medicinal.—*Dr. J. L. Stewart.*

BOUCEROSIA EDULIS. *Edge.*

Chung	Panj.	Pippa	Panj.
Pippu	,,		

Stem used as a relish for farinaceous food not uncommon in the arid tract from the Salt Range southward to the boundary of the Punjab and in Sind, Edgeworth.—*Dr. J. L. Stewart, M. D.*

BOUDHA-SARA, Sans. The essence of the Booddha philosophy.

BOUDDHA, See Budd'ha; Sakya muni.

BOUEES. Fr. Buoys.

BOUEIA BURMANNICA, *Meisner.*

Cambessedia, *W. & A.*
Mangifera oppositifolia, *Roxb.*
Manga sylvestris, *Rumph.*

Mariam	Burm.	Mai-een	Burm.

Commonly cultivated by the Burmese. It is a small tree ; drupe the size of a hen's egg.

BOUEIA MACROPHYLLA.

Roomaniya Baitool. Malay.

This inhabits Malacca.

BOUEIA MICROPHYLLA.

Roomaniya Paigo. Malay.

The habit of these two species is different from that of the Burmese one, the leaves more coriaceous, and the secondary veins more distinct. The fruit of both is eaten by the Malays. They have the characteristic acidity, but make excellent pickles. *Cantor.—Ben. As. Soc. Jour.* 1854.

BOUGAINVILLÆA SPECTABILIS.—*Juss.*

Showy Bougainvillæa. Eng.

Has been largely introduced into India.

BOUGHTON, Mr. Gabriel Boughton, Surgeon of the E. I. Company's Ship Hopewell, in 1639 or in 1644 was summoned to the Deccan from Surat to attend on a daughter of Shah Jehan who had been severely burned. He asked, as his reward, liberty for the E. I. Company to trade in Bengal free of duties.—*Broome List of the Bengal Army, London,* 1850.

BOULAC, a suburb of Cairo.

BOULMALA STONE, procured from the hill state of Dhenkanal, in Orissa : is used to make small mortars and the little tripods on which sandalwood is ground by natives.—*Cal. Cat. Ex.* 62.

BOURBON CHAMELEON. Chamæleo nasutus.

BOURBON, also called REUNION and MASCARHENAS, is an island of a round form above 42 miles from N. W. to S. E. A volcano near its S. E. part, is in Lat. 21° 9' S. It is larger than the Mauritius but it is only a great mountain cleft in three places, and clothed with wood, though portions below are cultivated. It was discovered by the Portuguese, who called it Mascarhenas. The French took possession of it in 1675. It was captured 10th July 1810 by the British, but restored at the general peace.—*Horsburgh.*

BOURBON TACAMAHACA. Calophyllum inophyllum.

BOURDONNAIS LA, sailed for India when only 14 years of age. He became the governor of Mauritius and Bourbon in 1734. He returned to France, but in 1746 he revisited India, had an encounter with the British fleet, and on the 10th September, he captured Madras, which capitulated but was ransomed on the 10th October. He returned to France but was captured on his way. He was shortly after released, in consideration of his lenient treatment of Madras, but on arriving in France, he was thrown into the prison of the Bastile where he lingered for three years and then died. Dupleix was jealous of him and caused his imprisonment. He introduced cotton and indigo into the Mauritius.

BOURIAT MONGOL, a nomade people, living in the province of Irkoulsk, to the south of lake Baikal.—*Timkouski, Journey to Peking, Vol. I, p.* 380. See Kirghis.

BOURO ISLAND, one of the Moluccas, Fort Defence, being in Lat. 3° 22¾' S. Long. 127° 4' E. in Lat. 3° 6' S. Long. 125° 57' E. The island is high and has a semi-circular mountain on its N. W. part. The island has two races, the larger number are Malays of the Celebes type, often exactly similar to the Tomore people of East Celebes, who are settled in Batchian, but the other race resemble the Alfura of Ceram. Amongst its birds are the two king fishers Tanysiptera acis and Ceyx cajeli. A beautiful sun bird Nectarinea proserpina, and a black and white flycatcher Monarcha loricata.—*Wall.*—76, 79.

BOUTEILLES. Fr. Bottles.

BOUTA. See Buddha.

BOUTON DOME. See Pulo Bouton.

BOUTON ISLAND on the east side of the Gulf of Boni, is of middling height and hilly.

BOUTONS. Fr. Buttons.

BOUTTEILLEN. Ger. Bottles.

BOVIDÆ, a family of mammals, of the order Ungulata. The Bovidæ embrace the antelopes, goats and cattle, and those occurring in in S. Eastern Asia, may be thus enumerated.

Fam. Bovidæ, Antelopes, goats and cattle.

Sub-fam. Antelopinæ, of 7 genera and 10 species, viz :

7 Genera of Tragilophinæ or Bush Antelopes.

1 Portax :
1 Antelope :
1 Kemas ;
1 Tetraceros :
3 Gazella ;
2 Procapra and
1 Saiga.

Sub-fam. Caprinæ, goats and sheep, viz :

1st. Capricorns or Antelope goats, or Mountain antelopes : which includes three species of the genus.

2nd. True goats with the genera Hemitragus, two species ; Capra, three species, and eight species of Ovis.

Sub-fam. Bovinæ, of which, in India, there are two species of the genus Gavæus, and one species of Bubalus.

The *Bisontines* sub-divide into the Bisons proper, and the Yak. All have cylindrical horns, very slight naked muzzle, (most developed in the European *Zubr*), and are clad with long shaggy hair, especially on the head, chin, and fore-quarters. The tail is short, not reaching below the hocks.

The Caucasian Bison (*B. caucasicus?*) is an animal little known. It is supposed to be distinct from the Lithuanian *Zubr* ; has a black dorsal stripe, which is not seen in the latter, and differently shaped hoofs. There is also a slight difference in the horns. According to Professor Nordman, who was employed in 1836 on a scientific mission in the Caucasus, "this animal, though no longer occurring near the high road from Tamar to Teflis, &c., is not very scarce in the interior of Caucasia. Herds are still found in a few districts by the river Kuban ; and the animal is met with on Mount Caucasus from the Kuban to the sources of the Psih, a distance of about 115 English geographical miles. Near the Kuban it is met with, in swampy places, all the year round. In the country of the Abazechians (Abchasians?) it repairs to the mountains in summer, and is then frequently killed by the Psoeh and other Caucasian tribes. Late in autumn it descends from the mountains to visit the pastures in valleys. It is particularly numerous in the district of Zaadan. Lieut. Lissowski, who studied at Wilna, and possesses a thorough knowledge of the *Zubr* of Lithuania, assured him at Bombari, that the latter animal was *not very different* from that of Caucasia."—(*Vide* Weissemborn, in *Ann. Mag. Nat. Hist., Vol, II, pp.* 254 *and* 291.)

A kind of Bison or *Zubr* (more probably the great *Taurine* 'Urus,' or some animal akin to it,) is mentioned in the *Travels in Tartary* of the old traveller Bell, as existing in his time in the country of the Tzulimm Tartars.—(*Vide Journey from Tomsky to Elimsky, Vol. I., ch. iii., p.* 224.) "On the hills, and in the woods near this place," he "remarks, are many sorts of wild beasts, particularly the Urus, or Uhr-Ox, one of the fiercest animals the world produces. Their force is such, that neither the wolf, bear, nor tiger dare to engage with them. In the same woods is found another species of oxen, called *Bubul* by the Tartars. It is not so large as the Urus ; its body and limbs are very handsome ; it has a high shoulder and flowing tail, with long hair growing from the rump to its extremity, like that of a horse. Those which I saw were tame, and as tractable as other cattle." Here there is a distinct notice of the Yak (both wild and tame) in a part of Asia where it would appear to be now quite unknown! The name *Bubul* applied to it has probably its connexion with *Bubalus*. Remains of extinct bisons have been found in Siberia, and of three or four species in North America, as figured by Cuvier and by Harlan and others; and there is really some difficulty to imagine that our modern European Bison could, under any circumstances, have developed horns, the *bony cores* of which measure 2¼ feet " from base to point upon the outer curve, 17 inches in vertical diameter, [circumference?--surely not bow-string diameter, which gives an amount of curvature quite unintelligible in the particular race or species,] and 4 inches from front to back at their base ;" as in a specimen of *Bison priscus* from Clacton, in Essex, noticed in the *Ann. Mag. Nat. Hist., 2nd series, Vol. XX., p.* 393. The largest horns of the existing Lithuanian *Zubr* do not exceed 18 inches round the outer curvature, and this with their investing corneous sheath! The only known indigenous Bovines of America are its peculiar living bison, the Musk Ox of the Arctic 'Barren grounds,' and the fossil Bisontine species referred to. Of one of the latter Z. possessed drawings of a most peculiar frontlet, with narrow yet Bisontine forehead and thick horn-cores, stated to be from the celebrated deposit of 'Big-bone Lick' in Kentucky, of a dwarf species, which seems to be undescribed to this day.

Z. had not seen the skull of a Yak of pure blood, but suspected that it has not the protrusile tubular orbits of the true Bisons. The general form appears to be a step nearer to the Taurines, and there is no less inequality of the fore and hind-quarters: still 14 pairs of ribs: long hair on the fore-quarters and pendent from the flanks but the most striking peculiarity is the 'chowry' tail.' Z. in Indian Field.

BOVRA KORRO. PERS. Lit. Black-breast: a large desert partridge in northern Persia. Ptereocles exusta.

BOW. Throughout South Eastern Asia, the bow has almost disappeared, the only people using it constantly in war and for the hunt, being the Andamaners—but at the annual "langar" of the nizam of Hyderabad, there are still to be seen a few soldiers in the procession, armed with bows. Recently too in the beginning of 1870, I met a small body of men, seemingly on some predatory excursion, one of whom was armed with the bow and a quiver full of arrows. In April 1863, a few days before I arrived at the Andamans, a British sailor was killed by the arrow of an Andamaner who was captured.

BOWANI, or Kali, the consort or sacta of the hindu god Siva, a terrible goddess, delighting in blood and blood sacrifices. This goddess is supposed to have inspired Sivajee to murder Afzul Khan, the general of the emperor of Delhi. At a conference, Sivaji struck Afzul Khan with a wag-nak and finally dispatched him with the beautiful Genoese blade called Bowani which he always wore. That sword, down to the time of the British supremacy had a little temple for itself, in the palace of Sivaji's descendents, and it was annually worshipped by them and their household, not as a mere act of veneration for their ancestors trusty sword, but because it was the chosen instrument of a great sacrifice and the attendant who watched it used to say that no doubt some of the spirit of Bhawani must still remain in. Many towns and rivers are named after her. See Chamunda, Devi, Kali.

BOWANIGUNGE, two towns one in L. 88° 54′ E. and L. 26° 31′ N., another in L. 89° 32′ E. and L. 26° 31′ N. Bowanghaut, in L. 89° 28′ E and L. 24° 56′ N., Bowanipoor, three towns, one in L. 89° 30′ E. and L. 24° 34′ N., another in Long. 86° 6′ E. and Lat. 20° 15′ N., a third in L. 87° 17′ E. and L. 25° 38′ N., Bowannee, in L. 73° 0′ E. and L. 31° 28′ N.

BOWANY, a river that rises at the eastern foot of the Neilgherry hills and joins the Cauvery river in Coimbatore, at the town of Bowany.

BOWCHEE, in Ahmedabad, a cereal,—not identified: but in Bombay, fruit of Flacourtia sapida.

BOWENPILLAY, a small hamlet 7 miles N. W. of Hyderabad.

BOWNEE GANGA, a river near Samote in Ajmir.

BOWNG JWE. A tribe in Burmah.

BOWRING, Sir John, K. C. B, Governor of Hongkong, but best known as an author by his political and literary writings. He was born at Exeter in 1792, and became, in early life, the political pupil of Jeremy Bentham, maintaining his master's principles for some years in the "Westminister Review," of which he was the editor. He also distinguished himself by an extraordinary knowledge of European Literature, and gave the public a number of pleasant versions of poems, songs and other productions, from the Russian, Servian, Polish, Magyar, Danish, Swedish, Frisian, Dutch, Esthonian, Spanish, Portuguese, and Icelandic. The University of Groningen in Holland, conferred on him the degree of LL.D. He early made the economies and literature of trade and commerce an especial study, and at various times was commercial commissioner from Britain to France, the States of the German custom union, and the

Levant; under Earl Grey's government he was a commissioner for investigating the Public Accounts. In 1849 he was appointed British Consul at Hongkong and superintendent of trade in China and subsequently acted as plenipotentiary in that country. He returned to England in 1853, and in the following year received the honor of Knighthood and the Governorship of Hongkong, which he held with the chief military and naval power. He sat in Parliament from 1835 to 1837, and again from 1841 to 1849. He wrote Bowring's Siam and a work on the Phillippine islands.

BOWRINGIA, a very curious and interesting genus of fern, found at Pomrang in the Khasia Hills, but it is only known to occur elsewhere at Hongkong in China.—*Hooker Him. Jour. Vol. II. page* 313. See Hamamelis Chinensis.

BOWSA, HIND.? A tree of Chota Nagpore. Soft, white timber.—*Cal. Cat. Ex.* 1862.

BOWSTRING HEMP. Fibre of Sanseviera zeylanica.

BOX WOOD.

Palm-hout	DUT.
Buis	FR.
Buchsbaum	GER.
Teashur	HEBREW.
Busso. Bosso. Bussolo	IT.

This is a valuable wood of a yellowish colour, close grained, very hard, and heavy, it cuts better than any other wood, and is susceptible of a very fine polish. This wood was highly valued by the ancients as a material for musical instruments, *buxus*, the name by which it was known, often standing for a "flute;" and, in Britain, it is said by Evelyn to have been "of special use for the turner, engraver, mathematical-instrument maker, comb, and pipe-maker, and that the roots furnished the inlayer and cabinet-maker with pieces rarely undulated, and full of variety. Also of box are made wheels or shivers and pins for blocks and pulleys; pegs for musical instruments: nut crackers, weavers' shuttles, hollar-sticks, bump-sticks, and dressers for the shoe-maker, rulers, rolling-pins, pestles, mall-balls, beetles, tops, chess-men, screws, bobbins for bone-lace, spoons and axle-trees." One species grows in the south of Europe and West of Asia. But a species of Box-wood has been introduced into Britain from the Himalaya; it is the Buxus emarginatus of Dr. Wallich. This is found of considerable size and thickness, and outwardly the wood appears as good and compact as that of the Box-wood in use in Europe. On actual comparison the Himalayan Box-wood is found to be softer than the common kinds, but is like them in other respects, and wood-cuts have been engraved upon it.

The Agricultural and Horticultural Society of India awarded a prize to Captain W. Hay for bringing to notice the box tree of the Nepaul valley, where it is large and more abundant than in other parts of the Himalaya. (*Jour. A. H. Soc., XI.* 413. 1859). Logs are available six feet long and twenty-two inches in girth. It is however found in the valleys of the Sutlej, Parbati, and near Dharmsalla, and in the Salt Range; sometimes attains a girth of 20 inches or more. The Himalayan box appears to be identical with the tree common all over South Europe from Gibraltar to Constantinople, and extending into Persia. It is found chiefly in valleys, at an elevation of from 3 to 6,000 feet. Dr. Stewart met with it from Mount Tira near Jhilam to Wangtu bridge on the Sutlej. It is variable in size, being generally 7 to 8 feet high and the stem only a few inches thick, but attaining sometimes a height of 15 to 17 feet, as at Manikarn in Kulu, and a girth of 22 inches as a maximum. The wood of the smaller trees is often the best for the turner and wood engraver. It is made into little boxes by the villagers for holding ghee, honey, snuff and tinder. It is in demand for plugs for Minie rifle balls, and at the Medical Stores at Sealkote it is turned into pill boxes; it is useful for trenails and wedges. It is carved into neat boxes for holding ghee, snuff, tinder, &c. The wood is liable to split in the hot weather, and should be seasoned, and stored under cover. Thunberg says that *Buxus virens* was not uncommon in Japan, in a wild and cultivated state. Of its fine and close wood, combs were made, which, when lacquered with red varnish, were used by the ladies to stick in their hair by way of ornament. The annual consumption in Great Britain exceeds 2,000 tons, half of which is of foreign growth. The imports in 1847 were 889 tons; in 1848, 1306 tons; and in 1849, 1124 tons. Price £ 4 to £10 per ton. The Karens sometimes furnished Mr Mason with specimens of a wood that can scarcely be distinguished from the box-wood of Europe. He had never seen the tree, but named it a Murraya. Wallich found *Nauclea cordifolia* on the banks of the Irrawaddy, which has "wood coloured like that of the box tree, but much lighter, and at the same time very close grained." It may possibly be the same tree, although the Tenasserim wood is not light; or it may be a Tavoy tree, which he says has "a strong tough wood, in grain like box."—Dr. Hunter highly praises the wood of the Euonymus dichotomus of the Pulney hills.—*Cleghorn. Punjab Report, p.* 105. *Statistics of Commerce, p.* 36. *Thunberg's Travels. Vol. III. pp.* 83, 227. *Dr. Mason. Dr. J. L. Stewart, Powell's Handbook. Dr. Hunter in Newspapers. Faulkner. Royle. Illust. Himal. Bot. p.* 327. *John's Forest trees of Britain No. II, p.* 166. See Buxus.

BOX WOOD. Syn. of wood of Sarcococca trinerva.

pieces, and these are rivetted and cemented to form the bracelets, some of which are elaborately carved, and inlaid with a composition of lac and a red pigment. A pair of bracelets of this description frequently costs as high as 80 Rupees. Of the thick pieces of the shells, beads are made to form the necklaces, which the Bengal sepoys wear.

Some Marwari women and the Binjara women have the entire forearm from the wrist to the elbow covered with heavy massive bracelets and the lower part of the legs equally covered with anklets. The armlets of the Binjara women are deer horn. Amongst the Rajputs, the women adopt a brother by the gift of a bracelet. The intrinsic value of such pledge is never looked to, nor is it requisite it should be costly, though it varies with the means and rank of the donor, and may be of flock silk and spangles, or gold chains and gems. The acceptance of the pledge and its return is by the Katchli, or corset, of simple silk or satin, or gold, brocade and pearls. Colonel Tod was the *Rakhi bund Bhae*, of the three queens of Oodipoor, Boondi, and Kotah, besides Chund-Bae, the maiden sister of the Rana; as well as of many ladies of the chieftains of rank. Though the bracelet may be sent by maidens, it is only on occasions of urgent necessity or danger. The festival of the bracelet (Rakhi) is in spring. The adopted brother may hazard his life in his adopted sister's cause, and yet never receive a mite in reward, for he cannot even see the fair object who, as brother of her adoption, has constituted him her defender.—*Tods' Travels in Rajasthan.* See Phyllactery; Talsam; Tawiz.

BRACHA, in L. 73° 8′ E. and L. 21° 18′ N.

BRACHINIDA. See Coleoptera.

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BRACHYPTERNUS AURANTIUS, *Linn.* The orange coloured wood pecker of Ceylon. B. Ceylonus and B. rubescens also occur there.

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BRAHAM. HIND. Sorghum halepense.

BRAHASPATI. See Vrihaspati.

BRAHASPATINDA. Thursday. See Singhalese.

BRAHEMAN, in L. 67° 44′ E. and L. 30° 6′ N.

BRAHM, OR PARA BRAHM, the Supreme being, is a name that first appears, in hindu religious books, in some of the best upanishads, or appendages to the Vedas, of later date than the first three and introducing a different and superior theology. It seems to have been a first effort towards the recognition of a creator, and hindus of the present day recognise that the Almighty, infinite, the eternal, incomprehensible, self-existent being; he who sees every thing, though never seen; he who is not to be compassed by description, and who is beyond the limits of human conception; he from whom the universal world proceeds; who is the lord of the universe, and whose work is the universe; he who is the light of all lights, whose name is too sacred to be pronounced, and whose power is too infinite to be imagined, is Brahm! the one unknown, true being, the creator, the preserver, and destroyer of the universe, from whom all souls come and to him again return. Under such, and innumerable other definitions, is the Deity acknowledged in the Vedas, or sacred writings of the hindus; but, as has been judiciously observed," while the learned Brahmans thus acknowledge and adore one God, without form or quality, eternal, unchangeable, and occupying all space, they have carefully confined their doctrines to their own schools, and have tacitly assented to, or even taught in public, a religion, in which, in supposed compliance with the infirmities and passions of human nature, the Deity has been brought more to a level with our own prejupieces, and these are rivetted and cemented to form the bracelets, some of which are elaborately carved, and inlaid with a composition of lac and a red pigment. A pair of bracelets of this description frequently costs as high as 80 Rupees. Of the thick pieces of the shells, beads are made to form the necklaces, which the Bengal sepoys wear.

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Certain it is, that the human form in its natural state, or possessing the heads or limbs of various animals; the elements, the planets, rivers, fountains, stones, trees, &c., &c., have been deified, and become objects of religious adoration. The brahmans allege, " that it is easier to impress the minds of the rude and ignorant by intelligible symbols, than by means which are incomprehensible." Acting upon this principle, the supreme and omnipotent God, whom the hindu has been taught to consider as too mighty for him to attempt to approach, or even to name, has been lost sight of in the multiplicity of false deities, whose graven images have been worshipped in his place. To these deities the many splendid temples of the hindus have been erected, while, throughout the whole of India, not one has been devoted to Brahm, whom they designate as the sole divine author of the universe.—*(Coleman on the Mythology of the Hindus, p. 1.)* Strictly speaking, however, the religion of the hindus is a monotheism. They worship God in unity, and express their conceptions of the Divine Being, and his attributes, in the most awful and sublime terms. God thus adored is called Brahm, the One Eternal Mind, the self-existing, incomprehensible Spirit. But the will of God, that the world should exist and continue, is also personified by them, and his creative and preservative powers are made to appear as Brahma and Vishnu, while Siva is the emblem of the destructive energy; not however of absolute annihilation but rather of reproduction in another form. In the hindu religion, therefore, this triad of persons represent the Almighty powers of creation, preservation and destruction. In their metaphysics, Brahma is matter, Vishnu spirit, Siva time; or in natural philosophy, earth, water and fire. These three persons have wives, the executors of the divine will and the energies of their respective lords. And in the unbounded rage amongst hindus for personification, the sun, moon, and all the heavenly host; fire, earth and all natural phenomena, all nature, indeed,—the passions and emotions of human beings, their vices and virtues, are transformed into persons, and act appropriate parts in the turbulent history of man. The preservative and representative powers, being in constant action, are, as have been also their wives and children, fabled to have descended on earth innumerable times in divers places, for the instruction and benefit, including the profitable punishment of mankind. And these endless incarnations have been worked up by the poets with a wonderful fertility of genius and the pomp of language into a variety of sublime descriptions, interspersed with theological and moral texts, that at length they were received as inspired productions and became the hindu standard of truth. Brahma, the creative power, is not specially adored in temples, dedicated exclusively to him. His creative duties over, his portion of the divine activity ceased to operate on the hopes and fears of mankind. In their mythology, however, the hindus narrate fabulous persecutions and warfare which overthrew Brahma, his temples and worship; and the sects of Vaishnava and Saiva, now comprise all the individuals of the races in India, distinguished by the appellation of hindus. A philosophic few excepted, they are worshippers of a superstitious and idolatrous polytheism, and the hindu erects no altars to **Brahm**, the infinite, incomprehensible, self-existing spirit, " which illumines all, delights all, whence all proceed; that by which they live when born; and that to which all must return."—*(Hindu Pantheon, p. 4.)* The Narayana of the present hindus is rather the Spirit of God, moving on the water, and can be regarded but as the spirit of Brahm, (Ins. of Menu, ch. 1, v. 10,) though the two hindu sects claim for their Vishnu and Siva, the title of Narayana, and Brahma himself is sometimes called Narayana. At present, there will not be found two hindu families whose belief is identical, though almost all the educated of the people recognise one God under one name or another. God thus adored is **Brahm**; the One Eternal mind, the self-existing incomprehensible Spirit. From time to time great reformers rise condemning the prevailing hindu idolatry and so anxious are they to know the truth that every new teacher immediately gathers round him a number of disciples. But it is the work of man, without the basis of a revealed religion, and the zeal of the pupils soon calms down: in the meantime the bulk of the hindu people are engaged in spirit worship and hero worship; in the worship of the manes of ancestors; in the worship of men and animals; of the inanimate objects of nature and of natural phenomena, of forms of men and women and of shapeless blocks of stone and wood; some forms of hindu belief, are systems of rationalism, others are systems of philosophy, and others are physiological doctrines, with emblems to illustrate views entertained as to cosmogony and production which take the place of religion.—*Taylor; Moor; Coleman; Wilson.* See Upanishad.

BRAHMA, a word of doubtful origin, supposed by some to be from the Sanskrit "vrih" to increase. The word Brahma occurs in a hymn of the Rig-Veda, as a name of Sudra, and, according to Dr. Haug this word originally meant the strewing of the sacrificial grass on the spot appointed for the immolation.

Though the root of the word is supposed to be Brih or Vrih, signifying to increase one of the earliest meanings of the word "brahma," as used in the Veda, was "food" also riches. In the Rig-Veda, a more frequent meaning is sacrificial food. But, in the same work, the word Brahma is repeatedly used to express the song of the Soma singers, a magic spell; and is applied to ceremonies having a song of praise as their characteristic. In the language of the Zendavesta 'baresman,' an absolutely identical word, is found, which the Parsees interpret to mean a bundle of twigs, tied together with grass used in the Fire-worship like the bundle of Kusa grass used by the brahmans in the Soma sacrifices. In both worships the bundle is a symbol of 'growing increase' or 'prosperity,' and the name of the symbol was transferred to the texts, hymns, sacrifices and ceremonies used in the rites. "As sacrifice among the Vedic Indians was the chief means of obtaining all earthly and spiritual blessings, but was useless without the *brahma*, *i. e.* success, the latter was at last regarded as the original causes of all being."

BRAHMA, the son or creature of Brahma, with Siva and Vishnu, Brahma forms the Triad of hindu deities. According to the Reverend William Taylor, the name designates the creative power of deity operating on Maya matter. In two respects Brahma corresponds with the first man of the Jewish cosmogony. His colour is tawney or ruddy, the colour of earth, and in so far agreeing with the name of Adam; and Brahma as Swayambhuva, a son of the self-existant, corresponds with Adam. His origin is obscure. According to one account the egg of *Brahma* is the world, the orphic or mundane egg which floated amidst the water before creation, and from which Brahma, the first-born, according to some legends emerged; but which, according to others, merely resolved itself into the upper and lower spheres.—(*Hind. Theat. Vol. II. p. 58.*)

There is nothing extant to show either that Brahma ever had much consideration shown him, or that his worship was overwhelmed by the intrusion of the Vaishnava and Saiva religions. Sonnerat mentions (Voyage, p. 5) that in the translation which Mr. deMeffain ordered to be made, of the mysteries of the temple of Sri Rangam, (during the time he commanded in that pagoda, which the French had turned into a fort) that Brahma, in former time, had temples the same as Siva and Vishnu, and was worshipped separately, but the followers of the two last entirely destroyed the temples and worship of Brahma, in order to consign him to oblivion. There are, however, too few facts known to admit of other than speculation on this point. Of one thing, there is no doubt that he is the least important, at the present day, of the Hindu Triad, though termed the creator, or the ancestor of gods and men Under this denomination he has been imagined to correspond with the Saturn of the Greeks and Latins. Brahma is usually represented as a red or golden-coloured figure, with four heads. He is said (by the Saiva) to have once possessed five; but, as he would not acknowledge the superiority of Siva, as Vishnu had done, that deity cut off one of them. He has also four arms, in one of which he holds a spoon, in another a string of beads, in the third a water-jug (articles used in worship), and in the fourth the Veda or sacred writings of the hindus. He is frequently attended by his vahan or vehicle, the hansa or goose, or (as some allege) a swan.—(*Coleman, Mythology of the Hindus, p. 5.*) Brahma seems especially to be spoken of in the hymn, on the sacrificial ceremony of Purushamed'ha, which is stated by Mr. Colebroke to "be a type of the allegorical immolation of Narayana, or Brahma in that character." Brahma and Narayana are in this instance identified; and from the circumstances of having Lakshmi as his wife, and bearing the attributes of Vishnu, as above described, Narayana is also unequivocally identified with the preserving power. Krishna indeed, calls himself Narayana; at least, is made to do so by Jayadeva, the spirited author of the Gita Govinda but, perhaps, at the present day, every hindu holds that the god whom he worships is Narayana. In one of Krishna's tender songs, addressed to his delightful mistress, the following is the burden,—"Give short raptures, sweet Radah! to Narayana, thy adorer."—*As. Res. Art.* 8. The names of Brahma are not so numerous as those of Vishnu and Siva, who are said to have a thousand each. Hiranya Garbha is one of his names. He is sometimes called Kamala yoni, from kamal the lotus and yoni the female organ, (a type of Brahma, or the creative power), the mystical matrix, into which is inserted the equally mystical linga of Siva. Brahma, according to the doctrine of the Vaishnavas sprung on a kamala, or lotus, from the navel of Vishnu. But the lotus, considered the prime of aquatic vegetables, is a more immediate attribute of Vishnu, the personification of water. His consort, Lakshmi, in one character, sprang from the sea, and the lotus, being also the emblem of female beauty, is peculiarly sacred to her, and she is called Kamala or lotus-like. The sacti are the wives of the hindu gods. To all the principal and several of the secondary deities or incarnations of the principals, wives have been assigned. Except in sex, the wives exactly represent the respective lords, being their energy or active power,—the executors of their divine will. The Sacti of Brahma is Saraswati, the goddess of Harmony and the Arts. Many deities have vehicles or Vahans, and that of Brahma and of his Sacti, is the swan or goose called *hanasa*—(*Moor*). Exclusive adorers of this deity and temples dedicated to him do not now occur perhaps in any part of India; at the same time it is an error to suppose that public homage is never paid to him. He is particularly reverenced at Pakher in Ajmer, also at Bithur in the Doab: where, at the Brahmavarta ghat, he is said to have offered an Aswamheda on completing the act of creation. The pin of his slipper is still worshipped there. On the full of the moon Agrahayana (Nov. and Dec.) a *mela* or meeting, that mixes piety with profit, is annually held at that place—(*Wilson*). But although this hindu personification of the creative power has no temples or exclusive rites dedicated to him, his images are occasionally placed in the temples of other gods and along with their rites he is reverently propitiated by offerings and invocations. According to the hindu theology, destruction is only reproduction in another form: and thus Brahma and Siva are sometimes found almost identified with each other: oftener, however, in direct opposition and hostility. Brahma creates; Siva destroys: but to destroy is to create in another form: Siva and Brahma hence coalesce. In hindu mythology, therefore, Brahma is the first of the three great personified attributes of Brahm or the Supreme being. He is called the first of the gods, framer of the universe, guardian of the world, under the latter character agreeing with Vishnu. In physics, he is the representative of matter generally, from him all things proceeded and in him pre-existed the universe, comprehending all material forms which he at once called into creation or arranged existence, as they are now seen, although perpetually changing their existence by the operation of the reproductive powers. From his mouth, arm, thigh and foot, proceeded severally the priest, the warrior, the trader and the laborer, and these by successive reproduction peopled the earth. The sun sprung from his eyes, and the moon from his mind. Red is the colour supposed to be peculiar to the creative power and pictures of Brahma are seen of that colour. Brahma is usually represented with four faces, said to represent the four quarters of his own work; and sometimes said to refer to a supposed number of elements, of which he composed it: as also to the Vedas, one of which issued from his mouth. There are legends of his having formerly had five heads, one having been cut off by Siva, who is himself five-headed. Each hindu sect worships some individual deity or two or more conjoined; and the object of the worship is gifted by its votary, with all the attributes of the Most High and is made the source whence all other gods emanate. The sacti, Saraswati, the spouse of Brahma, is described as all-productive, all-powerful, and all-wise. Considering the learning, subtilty of mind and their great powers of thought, the confusion into which the brahmans have allowed their religion to fall, is most discreditable. Brahma, is generally believed to dwell in Sutya Lok, surrounded by Rishi and minor gods, and to be employed in creating men, and in recording human destiny.—*Revd. W. Taylor, Hindoo Theatre, Vol. II. Sonnerat's Voyages, p. 5. Coleman Mythology. Moor Pantheon.*

See Akasanavi, Brahm, Hindoo, Iswara, Inscriptions p. 390, Kama, Kasambi, Kashmir, Kuvera, Lakshmi, Lords of created beings; Maha Devi, Menu, Meru, O'm, Nandi, Paramahansa, Priests, Porana, Ravana, Rosaries, Sacta, Saraswati, Sherkun, Sri Sampradaya, Surya, Vahan, Veda, Vidya, Visva-Karma, Vishnu, Vrishala, Yavana.

BRAHMA ACHARYA: Brahma Gupta; These are supposed by some to be one and the same astronomer, and the inventor of the system disclosed in the Surya Siddhanta by others to be two distinct commentators of that Shastra. —*Capt E. Warren Kala Sankita.*

BRAHMADICA supposed by hindus to be the first created beings; but in their cosmogonies, their origin and names are variously explained. It is said, in the Ins. of Menu, (Chap. I. v. 32.) that the Almighty Power, having divided his own substance, became male and female; and from that female produced Viraj. Viraj produced the first Menu, named Swayambhuva: he, the ten Brahmadica or Prajapati, whom he calls ten Lords of Created Beings also the sons of Brahma. They produced seven other Menu, whose names were Swayambhuva, Swaroshesha, Uttama, Tamasa, Rivata, Chacshusha, and Satyavrata. These Menu are, by some authorities, said to have produced the seven Rishi; but others state the seven Rishi to have sprang immediately from Brahma: their names are Kasyapa, Atri, Vasishta, Viswamitra, Gautama, Jamadagni, and Bharadwaja. (*Wilford. As. Res. Vol. V. p.* 246.) The Brahmadica are however, according to Coleman, named Marichi, Atri, Vasishta, Palastia, Angiras, Pulastia, and Critu. Colonel Wilford, in the Asiatic Researches has considered the Brahmadica, the Menu, and the Rishi, to be seven individuals only. The names of some of the Brahmadica correspond with those of some of the Rishi.—*Cole. Myth. Hind. p.* 8. An account of Viraj, translated by Mr. Colebroke, from the white Yajur Veda, is accompanied by his judicious observations. "He," (the primeval being) felt no delight; therefore man delights not when alone. He wished the existence of another; and instantly he became such as is man and woman in mutual embrace. He caused this, his own self, to fall in twain; and thus became a husband and wife: therefore was this body so separated, as it were an imperfect moiety of himself. This blank, therefore, is completed by woman: he approached her, and thence were human beings produced. "She reflected, doubtingly, 'how can he, having produced me from himself, incestuously approach me? I will now assume a disguise.' She became a cow, and the other became a bull, and approached her, and the issue were kine. She was changed into a mare, and he into a stag-lion; one was turned into a female ass, and the other into a male one: in this manner did he create every pair whatsoever, even the ants and minutest insect." Another account makes Rudra, assist in the theogony. Brahma said, "Rise up, O'Rudra! and form man to govern the world." Rudra immediately obeyed; he began the work; but the men he made were fiercer than tigers, having nothing but the destructive quality in their composition: and they soon destroyed one another; for anger was their only passion. Brahma, Vishnu, and Rudra, then joined their different powers, and created ten men, whose names were Nareda, Daksha, Vasishta, Bhrigu, Critu, Puluha, Pulastya, Angira, Atri, and Marichi; (that is, Reason, Ingenuity, Emulation, Humility, Piety, Pride, Patience, Charity, Deceit, Morality): the general name of whom is the Muni; Brahma then produced Dherma, Justice, from the breast; Adherma, Injustice, from his back; Labha, Appetite or Passion, from his lips; and Kama, Love or Desire, from his heart. The last was a beautiful female, and Brahma looked upon her with amorous emotions; but the Muni telling him she was his own daughter he shrunk back, and Ladja, Shame, a blushing virgin, sprung from him. Brahma, deeming his body defiled by its emotions towards Kama, purified himself by partially changing it into ten females, who were respectively espoused by the ten Muni.—*Moor, Hindu Pantheon, p.* 91. *Colebrook. Wilford As. Research, Vol. V p.* 246. *Coleman Mythology of the Hindoos, p.* 8. See Lords of Created beings.

BRAHMÆA. A genus of insects of the tribe Bombyces. See Insecta.

BRAHMA KHAND. A pool 70 feet by 30, twelve days' journey up the Lohit, into which several minor streams break over a precipice. It is considered by hindus a spot as sacred as Gangotri.

BRAHMA-LOKAM, in the buddhism of Ceylon, the highest of the celestial worlds, sixteen in number.—*Hardy's Eastern Monachism, p.* 434.

BRAHMAN. This is written brahmana, but the final a is dropped in conversation. A brahman is of the priestly tribe of the hindus, but all brahmans are not priests. "The prescribed duties of the brahmans are peace, self-restraint, zeal, purity, patience, rectitude, wisdom, learning, and theology." *(Gita, p.* 130.*).* An ancient name was Sarman, the Sarmanæ of the Greeks. The ordinary application of the word brahman means a theologist, or divine, and is derived from Brahm, the Divinity. The term Pundit, is a learned brahman, a philosopher, from Panditya, philosophy. Ward in his work on the 'Literature and Mythology of the Hindoos,' mentions the confession of faith of a brahmin,' which he gave him, "God is invisible, ever living, glorious, uncorrupt, wise, the ever blessed, the Almighty, his perfections are inconsiderable and past finding out. He rules over all, destroys all, and remains after the destruction."—*(Chow Chow,) p.* 44. The Purushasakta hymn of the Rig-Veda is regarded by Sanscrit scholars as of late introduction. But in it occurs the passage descriptive of the origin of brahmans from Brahma; the brahman was his mouth; the rajanya was made his arms, the being (called) the Vaisya, he was his thighs; the sudra sprang from his feet. According to Bunsen, brahmans have systematically adulterated and adjusted the early history of India, iii. 513.) Brahmans were acquainted with the Talmud, and Sir W. Jones thought that Genesis ii. 21-23, is referred to in the form of Siva and Parvati known as Art'hanesvari, of which the right hand half is Siva and on the left hand Parvati.—*(Taylor.)*

There are ten great divisions of Brahmans, viz., five Gour brahmans, the Kanya-Kubhya, Saraswat, Gour, Maithala, Utkala: and five Dravidian brahmans, viz., Dravida, Telinga, Karnata, Maharashtra, and Gurjara. But there are various orders of brahmans, the chief of which in Northern India are the *Kulena.*

The great bulk of the brahmans of India, are confessedly of Arian origin, tall, fair, robust men, and light yellow in colour. In southern India, the Brahmans are all undoubtedly descended from one and the same stock, and sanscrit is their proper ancestral tongue, though now only regarded as an accomplishment or a professional acquirement: and some of the priestly brahmans can converse in sanscrit, although they use the vernacular language of the district in which they reside, and are styled Dravida, Kerala and Karnatica &c, Brahmans with reference to the language of their adopted district. The various brahminical tribes are as much separated as are the several castes; some of them may eat together, but they do not intermarry, and the first approach at union is seemingly to be with the Mahratta and Guzerat brahmans, amongst whom the influence of European knowledge has had more effect than upon any of all the other races in India. Good seed has fallen there on a good soil, and from a body of mendicants, these brahmans have become active, powerful and useful men.

Various ceremonies are attendant upon hindu boys between infancy and the age of eight years. After that age, and before a brahmin boy is fifteen, it is imperative upon him to receive the *poita, zonnaar, janavi* or *jhandiam*, the sacred thread, which the Brahmins, in their secret ceremonies, call Yadnupavita. The investiture, after a variety of preliminary ceremonies is thus performed. The priest first offers a burnt sacrifice, and worships the salagrama, repeating a number of prayers. The boy's white garments are then taken off, and he is dressed in yellow or red, and a cloth is brought over his head, that no Sudra may see his face: after which he takes in his right hand a branch of the vilva, Ægle marmelos, and a piece of cloth in the form of a pocket, and places the branch on his shoulder. A poita of three threads, made of the fibres of the suru, to which a piece of deer's skin is fastened, is suspended from the boy's left shoulder, falling under his right arm, during the reading of the incantations or invocations. The father of the boy then repeats certain formulas, and in a low voice, pronounces three times, the Gaitri O'm! Bhurbhuvă ssuvãhā, O'm! Tatsa vit'hru varennyâm, B'hargo devâsyã dhimahi dhiyo yonaha pracho dayath. O'm! Earth, air and heaven, O'm! "Let us meditate on the adorable light of the divine Sun, (ruler) (*Savitri*) may it guide our intellects." After this the *suru poita* is taken off, and the real *poita*, or sacred thread, put on. During this ceremony the father repeats certain formulas; the *suru poita* is fastened to the *vilva* staff, shoes are put on the boy's feet, and an umbrella in his hand. The receiving of the *poita* is considered as the second birth of a hindu, who is from that time denominated "dwija" or twice-born. A brahman boy cannot be married till he has received the poita. The sacred thread must be made by a religious brahman. It consists of three strings, each ninety-six "hath" (forty-eight yards), which are twisted together: it is then folded into three, and again twisted; these a second time folded into the same number, and tied at each end in knots. It is worn over the left shoulder (next the skin, extending half way down the right thigh) by the Brahmans, Ketries, and Vaisya castes. The first are usually invested with it at eight years of age, the second at eleven, and the Vaisya at twelve. The period may, from especial causes, be deferred; but it is indispensable that it should be received or the parties resisting it become outcastes.—(*Cole. Myth. Hind. pp.* 154 and 155.) It is regarded by the Brahmans as of highly mysterious and sacred import; and they do not consider an individual as fully a member of his class until he have assumed this holy emblem. Of these zonars, a brahman wears four; the other privileged tribes but three. Some writers call this the brahmanical, or priestly or sacerdotal thread; but not, it would appear, in strict correctness, it not being confined even to the priestly tribe, but worn by three out of the four tribes of hindus and by all the five sections of the artizan class, the goldsmith, brazier, blacksmith, stone-cutter and carpenter: the number of three threads, each measuring ninety-six hands, for the sacrificial string, may have some mystical allusion to the ninety-six fixed annual sacrifices. The number three is mystical with almost all nations; and, with the Hindus, may refer to the same source as the three sacred fires, the three legs of *Agni*, the triad of divine powers, &c., ninety-six does not arise from any ordinary process of three, and seven, and two; the distinguishing numbers of Agni's legs, arms, and faces.—(*Moor, page* 379.)

A Kulin brahman can marry as many wives as he likes; but there are certain brahmans in Bengal, who find the greatest difficulty in getting married to even one wife, and who generally spend their life in single wretchedness. These are Bangshaja brahmans of the Shrotriya class. While a Kulin brahman gets for every wife that he marries a handsome bribe, a Bangshaja Shrotriya brahman has to pay down a large sum of money to the father of the girl, whose hand he seeks to obtain. The consequence is that, owing to their poverty, numbers of Bangshaja Shrotriya brahmans never get married at all. To remedy this evil, in Eastern Bengal when, in any village the number of unmarried Shrotriya becomes inconveniently large, one of the ghatak of the place—those underservants of Bidhata who take a prominent part in all marriages—goes to Shribatta in Sylhet. There, with the assistance of his agents in the district, and by means whether fair or foul, he procures a number of girls, to whom he holds out the prospect of a pleasant settlement in life. The girls may not all be brahman girls—some of them may be of the Chandal caste, and others may be young widows;—but whatever may be their caste, character and antecedents they are huddled together in a boat, often 15 or 16 in number, and taken to the ghaut of the Shrotriya village. The faces of the old Shrotriya bachelors become lighted up with joy, when they hear of the arrival of the hymeneal boat. The sensation which these highly-favoured boats create in Eastern Bengal, is infinitely greater than that produced in Calcutta by the orange-boats of Sylhet, or the mango boats of Malda. The Bangshaja bachelors besiege the boat in numbers. Each one selects a girl according to his taste; a bargain is struck with the ghattak; and the celebration of the rites of marriage, according to the forms prescribed in the Shastras, soon follows. The plain-looking girl, for whom no Shrotriya may have a fancy, is employed as a maid-servant either of the ghattak himself, or of any other who may stand in need of her services.

Under every dynasty and Government in India, brahmans have held the highest executive offices alike in the civil executive and in the political administration of the country, for, until the middle of the nineteenth century all learning and science centred in them. The introduction into India, by the British, of the western forms of education, and the system of grants-in-aid to schools; however, permitted, particularly in the south of India, all the Sudra, and Vesya races to compete with the brahmans who have been largely displaced from their former exclusive position, though they are still a great power in the state. There is no being more aristocratic in his ideas than the secular brahmin or priest, who deems the bare name a passport to respect. The Kulin brahman of Bengal piques himself upon this title of nobility granted by the last Hindu king of Canouj (whence they migrated to Bengal), and in virtue of which his alliance in matrimony is courted. But, although Menu has imposed obligations towards the brahmin little short of adoration, these are limited to the "learned in the Vedas:" he classes an unlearned brahman with "an elephant made of wood, or an antelope of leather;" nullities, save in name.—(*Tod's Rajasthan, Vol. I. p.* 512.)

Brahmans were held in great disesteem by the Khatryas of the Vedic age: but, since many hundred years, and in the present day learned brahmans are always much respected by hindu men of wealth. At festivals, weddings, and feasts for the dead, they are invited to the houses of the wealthy are feasted, treated with honor, and on their departure receive gifts of value. These presents vary with the branch of science in which they excel, with their reputation for learning, the public esteem in which they are held, the number of their scholars, and the fame of their school. The presents include dresses, gold and silver vessels, ornaments of numerous kinds, food, and also money. A man of learning often takes one or more of his scholars to such assemblies, both to enhance his own reputation; and to accustom them to respectable society: and the students also obtain a share of the presents. From gifts of this kind the larger number both of teachers and students in the hindu schools of learning are supported, their food procured, and their house accommodation provided. Tolas, or native colleges, of this kind, are scattered all over the province of Bengal; and one or more may be found in all the great villages. The zillah of Burdwan, for example, though not particularly celebrated for learning, contained, a few years ago, 190 Sanskrit schools and 1350 students. Some places are more celebrated as seats of learning than others. In North India, for instance, Nuddea, Santipur, Tirhoot, and above all Benares, contain a large number of "colleges" in South India, they are chiefly found in the provinces of Tanjore and Madura.

These schools are divided into three classes: those wherein general literature is studied; the schools of law; and those of philosophy. In the first the subject matter of study embraces grammar, lexicology, poetical works, and rhetoric.—*Mullen's Hindu Philosophy, p.* 10-11.

Adisur, the founder of the Sen dynasty, brought from Kanouj five Sagnic brahmans of the tribes or gotra Sanhila, Kashyapa, Vatsa, Saverna and Bharudwaja. Several Sudra families, Ghose Bhose, Dutt, Guha, Mittra, &c. accompanied them and these take the position of Kulin Kaists. In the reign of Bullal Sen, about 284 years before the mahomedan invasion, all these Kulin brahmans and Kulin sudras had greatly increased, and though degenerated in learning they arrogated to themselves a position above all the Sapta-sali or aboriginal brahmans and Bullal Sen enobled these brahmans by giving to them the title of Kulin. The Kulin brahmin subsequently consented to marry the daughters of the aboriginal brahman, who eagerly seek alliances with the Kulin, and the Kulin have taken advantage of this and have established a scale of fees for condescending to accept a daughter of an inferior. They marry gold. Of the Kayaits who came from Kanouj Bhose Ghose and Mittra were enobled by Bullal Sing, into Kulin Kayats, Dass, Day, Dutt, Guha, Kar, Paulit, Sen and Sing hold a second rank.

Kulin brahmin women are married with difficulty and generally to aged men. In 1868, there were 11 Kulin men in Hooghly and 1 in Burdwan, each of whom had contracted 50 to 80 marriages;—24 in Hooghly and 12 in Burdwan, who had contracted from 20 to 50 marriages and 48 in Hooghly and 20 in Burdwan, who had contracted between 10 and 20 marriages. Kulinism is thus a great polygamic institution, and a few Kulin women have become prostitutes. In 1867, the abolition of this polygamy was contemplated and will doubtless soon be carried out.—*Cal. Rev., May* 1868.

Agnihotra brahmans, are the remnant of the worshippers of Agni, who still preserve the family fire, but in other respects conform to some mode of popular hindu devotion. According to prescribed rule, where a perpetual flame is maintained, it is used to light the fire round which the bride and bridegroom step at the marriage ceremony, and the funeral pile of either ; but the household fire is preserved only by this particular sect, the Agnihotra, and the great body of the people have nothing of the kind. In this case they distinguish between the sources whence they obtain the kindling flame according to the purposes of its application and the fire of the marriage rite is taken from the hearth of a respectable person, or from a fire lighted on some auspicious occasion, whilst for the funeral pile " any unpolluted fire may be used. It is only necessary to avoid taking it from another pile, or from the abode of an out-cast, of a man belonging to the tribe of executioners, of a woman who has lately borne a child, or of any person who is unclean.

Agnikula, is a supposed Scythic race whom the brahmans, in order to oppose the buddhists, formed into a religious confederacy. Aradhya is a class of brahmans who profess the Jangam creed but adhere to their caste views. In other sects of hindus, the brahman uniformly takes precedence of other castes. But among the Jangam or Vira Saiva, he is degraded beneath all others. Hence, there is a perpetual feud between the Aradhya Brahman and the Jangams who (unless at funerals where all are bound to assist), treat these brahmins with contempt. (*Brown on the Creed and Customs and Literature of the Jangams, p.* 8.) The inviolability of a brahman and the sin attached to causing the death of one, in any way, is inseparable, and to this, according to Sir William Jones, may be traced " the practice called dharna, which was formerly familiar at Benares, and may be translated *caption* or *arrest*." It is used by the brahmans to gain a point which cannot be accomplished by any other means ; and the process is as follows :— The brahman who adopts this expedient for the purpose mentioned, proceeds to the door or house of the person against whom it is directed, or wherever he may most conveniently intercept him. He there sits down in dharna, with poison or a poignard, or some other instrument of suicide in his hand, and threatening to use it if his adversary should attempt to molest or pass him, he thus completely arrests him. In this situation the brahman fasts ; and by the rigor of the etiquette, which is rarely infringed, the unfortunate object of his arrest ought also to fast, and thus they both remain until the institutor of the dharna obtains satisfaction. In this, as he seldom makes the attempt without resolution to persevere, he rarely fails ; for if the party thus arrested were to suffer the brahman sitting in *dherna* to perish by hunger, the sin would for ever be upon his head. This practice has become almost unheard of in late years, but formerly the interference of British courts have often proved insufficient to check it, as it had been deemed in general most prudent to avoid for this purpose the use of coercion, from an apprehension that the first appearance of it might drive the sitter in dherna to suicide. The discredit of the act would not only fall upon the officers of justice, but upon the government itself. The practice of sitting in dherna was not confined to brahman men only, which the following instance will exemplify. It was adopted by Benoo Bhai, the widow of a man of the brahminical tribe, who had a litigation with her brother-in-law, Bal-Kishen, which was tried by arbitration, and the trial and sentence were revised by the court of justice at Benares, and again in appeal. The suit of Benoo involved a claim of property and a consideration of caste, which her antagonist declared she had forfeited. (*Cole. Myth. Hind. p.* 148.) Another practice of a very singular and cruel nature, now unknown; was called erecting a "koor." This term is explained to mean a circular pile of wood which is prepared ready for conflagration. Upon this, sometimes a cow, and sometimes an old woman was placed by the constructors of pile, and the whole was consumed together. The object of this practice was to intimidate the officers of Government, or others, from importunate demands, as the effect of the sacrifice is supposed to involve in great sin the person whose conduct forces the constructor of the koor to this expedient. (*Cole. Myth. Hind. p.* 148.) The majority of brahmans may, and do, eat animal food : priests, while officiating as such, perhaps do not, For although all priests are brahmans, all brahmans are not priests : as amongst the Jews, the tribe of Levi furnished the priesthood, so among hindus, it is furnished from that of brahmans, *p.* 350. 145, 148. *Coleman.* —All Brahmans burn all their dead, above one year of age ; women are burned with clothes on.—*Brown on the Jungums, Bunsen Egypt, iii,* 513. *Chow Chow, p.* 44. *Mullen's Hindu Philosophy, p.* 10 & 11 ; *Coleman's Mythology* ; *Calcutta Review. Tod's Rajasthan, Vol.* 1, *p.* 512. See Chepang ; Chetang ; Kalusa ; Kandeh Rao ; Hindoo ; Kummaler ; India ; Inscriptions, p. 389. Lakshmi ; Lustral ceremonies ; Manu ; Poitu or Zonar ; Parvati ; Puranas ; Salagrama ; Sutra ; Rajpoot ; Sanyasi ; Shamanism ; Tripati ; Sakya muni ; Vishnu ; Yug-Byasa, Zonar.

BRAHMANA. Sanscrit prose works, of later date than the Veds, the oldest is the

Athareya, which has much historical information. The several Brahmana are chiefly liturgical and legendary, and in the various Upan shad, passing into the rationalized state, an becoming metaphysical and mystical. It woul be difficult to find two sets of opinions more absolutely irreconcileable than Vedic hymns and Vedantic philosophy. The sutra (aphorisms) or Brahmasutra, the chief authorities o the pantheistic Vedanta school, though much later than the rest, are still neumonics, as also is the Vaiseshka or atomic school of Kanada This supplementary mass of Vedic literature including philosophy, commentaries, aphorisms, &c., might furnish occupation for a long and laborious life. The Rig-Veda Sanhita is the oldest book known to the hindoos and certainly one of the oldest books in the world. Each hymn is called a *Sukta*, of which there are about a thousand, arranged into eight *Ashtaka* or *Khanda*, of unequal extent. Another division is into ten *Mandala*, sub-divided into a hundred Anuvaka. Each hymn has a Rishi or inspired writer for its author. Portions of the Rig-Veda have been translated by the late F. Rosen, the late M. Langlois, and by Professor Wilson, whose labours have given us four *Ashkata*, containing 502 hymns. And Dr. Muller is producing a complete one at the expense of the Indian Government. The 3,000 pages of large quarto which had already appeared, embraced little more than half the Sanhita with Sayana's Commentary. The language of the Veda is not Sanscrit in the strictest sense of the term, but there is not sufficient difference between it and classical Sanscrit, to authorise its being called a separate language. The difference is not so great as between Anglo-Saxon and modern English, but it is greater than between the Greek of Homer and Demosthenes. The names of the *Rishi* or composers are not always given in the body of the hymns, and there is nothing to guide the historian or chronologist as to their dates. Nevertheless, good scholars are of opinion that Vedic hymns were composed mostly about fifteen centuries before Christ, but not committed to writing, and therefore not collected until the eighth century, B. C.

BRAHMANABAD. The capital of lower Sind in the time of the dynasties that preceded the Arabs, and supposed to be the modern Hyderabad: but it seems to have intermediately borne the name of Mansura, after the Arab conquest.—*Elliot.*

BRAHMANDA, the mundane egg, created by Brahma; also the visible sky, which is supposed to be the shell of this egg. See Brahma: Veda.

BRAHMANDA PURANA. See Meru.

BRAHMANY DUCK OR GOOSE, Casarca rutila.

BRAHMANY KITE. In the Peninsula of India, the name given to the Haliœtus Ponticerianus or Haliastur Indus. It receives its name from Europeans because brahmans and religious hindus worship it, and regard it as the type or vahan of Vishnu. It is often fed by hindus on whose call of " Hari! Hari! the birds assemble and animal food is tossed to them. The birds are expert fishers. See Birds; Garuda; Serpent; Vahan.

BRAHMANISM. Early writers on the religions of India who drew their information exclusively from Sanscrit and Brahmanical sources, amongst whom was Klaproth, incline to favour the pretensions of brahmanism as more ancient than buddhism, but in later times the translations of the Pali records and other sacred volumes of buddhism in western India, Ceylon, and Nepal, have inclined the preponderance of opinion, in favour of the superior antiquity of buddhism, at latest, a contemporaneous development, with the doctrines of the brahmans. A summary of the arguments in favour of the superior antiquity of buddhism will be found in the " notes" &c., by Colonel Sykes, in the 12th Volume of the Asiatic Journal, and in the 'Essai sur l'origine des Princi-paux Peuples Anciens', par F. L. M. Maupied, Chap. VIII. The arguments on the side of those who look on Brahmanism as the original, are given by Mountstuart Elphinstone in his History, of India,' Vol. I. b. II. c. 4. " Admitting the common origin of the two systems, which the similarity of their fundamental tenets would seem to prove, the weight of argument," he says, " appears to lean to the side of the brahmins; and an additional reason may perhaps be drawn from the improbability that the Baudha system could ever have been an original one." But, he continues, " the hindu religion presents a more natural course: it rose from the worship of nature to theism; and then declined into scepticism with the learned, and man-worship with the vulgar. The doctrines of the Sankya school of philosophers seem reflected in the Atheism of Baudha; while the hero-worship of the common hindus, and their extravagant veneration for religious ascetics, are much akin to the deification of saints among the Baudhas. (*History of India, Vol. I., b. II., c. 4.*) The Rev. Mr. Gogerly, says the sacred buddhist books in Ceylon expressly demonstrate that its doctrines had been preached by the twenty-four Buddhists who had lived in succession prior to Gotama or Sakya, in periods incredibly remote, but that they had entirely disappeared at the time of Gotama's birth, so that he re-discovered the whole, and revived an extinguished or nearly extinct school of philosophy. (Notes on Buddhism by the Rev. D. J. Gogerly, Appendix to Lee's translation of Ribeyro, p. 265. quoted in *Tennent's Christianity of Ceylon*, *p.* 197. Fa Hian, the Chinese priest of Buddha, who travelled through Tartary to India and Ceylon in the fourth and fifth centuries declares that in the whole of that vast route, including Affghanistan and Bokhara, he found a Buddhist people and dynasty, with traditions of its endurance for the preceding thousand years. "As to Hindostan itself, he says, from the time of leaving the deserts (of Jayselmeer and Bekaneer) and the river (Jumna) to the west, *all the kings of the different kingdoms in India are firmly attached to the law of Buddhu*, and when they do honour to the ecclesiastics they take off their diadems.—(*See also Maupied, Essai sur l'Origine des Principaux Peuples Anciens, Chap. IX. p.* 209.) Brahmanism is, at present, synonimous with hinduism, and the brahmanical religionists are of three classes, the worshippers of Vishnu, of Siva and the Sakta or those who worship the female energies of gods. But it seems to have been gradually brought to its present condition and is in some places a nature-worship, in others an idolatry, in others a hero-worship, in others a physiology or a philosophy, perhaps, in all, a spirit worship. Bunsen says (iii. 516.) this worship by the Arian immigrants and the institution of castes seems to have commenced after they crossed the Sutlej river, and the original seat of this worship extended from the Indus to the Ganges and to Bengal (Behar). He adds that brahmans, after crossing the Sutlej, introduced Siva and other deities and threw those of the Vedic period into the shade. According to Bunsen, it was about the year 3000 B. C. that the schism took place amongst the Arians, when all India East of the Sutlej adopted brahminism and the religious views, forms and habits of Bactria were for ever abandoned. According to Manu (the first book of which was composed but little antecedent to the Christian era) the world had passed through four yogas, when brahmanism was introduced; and the brahmanism of the Sanscrit books is the mythico-pantheistic form of Vedic naturalism. Brahmanism is usually understood to be the later development and corruption of the ancient Vedic faith. Bunsen, however, is of opinion that the region of the Indus still retains the nature-worship of Vedism, while southern India and the banks of the Ganges have long fallen into Brahmanism. Brahmanism is accommodating to any thing that partakes of idol-worship; similarly as a Roman would worship Isis and Osiris, so a hindu makes offerings to apotheosized mahomedans, such as Shaikh Sadu, Ghazi Mian and Shaik Madar in northern India.

Brahminism is at present divided into several branches, each, of which has many sub-divisions. The following are the three principal branches; *1st, Vedantism*, so named after the Vedanta of Vyasa. It has few adherents, consisting of some philosophical brahmins. Of the thousands of temples in India consecrated to various deities, only one is consecrated to this doctrine, in which Brahma is worshipped alone.

2nd, Vishnuism.—This doctrine raises the second person of the Hindu Traid (Vishnu) to the highest place, and adores his different avatars, together with a multitude of other deities, powers of nature, and mythical persons. Its professors are styled Vaishnava.

3rd, Sivaism.—This doctrine places the third person of the Hindu Triad (Siva) highest in the rank of the gods. The professors of this doctrine call themselves Saiva and their number amounts to many millions more than the professors of Vishnuism. Although Siva is the God of destruction, he is also the God of Production, considered with respect to the idea, which ever pervades the doctrine of Brahma, namely, that death is but the re-commencement of a new life.

Sankhya system of Philosophy.—The Hindu system of Philosophy termed Sankhya, was apparently the earliest of all the systems that preceded the really Philosophic age of the Hindu Schools. Its author is said to have been Kapila who is asserted to have been a son of Brahma, and an incarnation of Vishnu; he is numbered among the seven great saints, and many marvels are ascribed to him. While using Vedic notions, he, in the main, departed from Vedic theories, and in all important particulars comes to conclusions diametrically opposed to what the Vedas teach.

The Sankhya system contains two grand divisions, which differ on the vital question of the existence of a God; one is termed the Seswara Sankhya that which owns a God; the other is called Niriswara Sankhya or that which denies the very existence of a God; the latter was Kapila's system; a system at that time entirely new, it taught that there were two primary agencies 'nature' or 'matter' and 'souls'; but that there was no Supreme Being.' He asserts as follows; 'souls' have existed in multitudes from eternity, by their side 'stands nature or matter;' for eternal ages the two remained separate; at length they became united, and the universe in all 'its forms was developed from their union.'

The object of the Sankhya, as well as of the other branches of hindu philosophy, is the removal of human pain by the final and complete liberation of the individual soul. The Sankhya system has twenty-five principles to which the soul must apply itself as objects of knowledge, and in respect to which true wisdom is to be acquired. They are;

1st.—Nature, termed 'Pradhan' or chief, from being the universal material cause, the prime cause of all things.

2nd.—Intelligence, the first product of nature, increate, prolific, itself productive of others.

3rd.—Self-consciousness, its peculiar function is the recognition of the soul in its various states, it is the product of intelligence, and itself produces.

4th.—8th. Five principles, subtle particles or atoms of things. These are imperceptible to the gross senses of human beings, but may be known by superior intelligence; then follow.

9th—19th. The organs of sense and action; of which ten are external and one is internal. The organs of sense are five; the organs of action are five. The mind serves both for sense and action.

20th—24th are five elements produced from the five subtle particles.

1st.—Ether; this has the property of audibleness, being the instrument of sound.

2nd.—Air: which has two properties; it is audible, and it can also be touched.

3rd.—Fire; this has three properties, audibility, tangibility, and colour.

4th.—Water; possessed of four properties, audibility, tangibility, colour and taste.

5th.—Earth; possessed of five properties, audibility, tangibility, colour, taste and smell.

25th.—The last principle is soul: like nature it is not produced but is eternal, but unlike nature it produces nothing from itself; it is multitudinous, individual, sensitive, eternal, immaterial.

The great error then that lies at the root of this Sankhya system is, that the products of matter and mind are blended and confounded together.

Nyaya Philosophy.—The next system is that attributed to Gautama, namely, the Nyaya system, which considers by means of subtle and logical argument, the true mode of inquiring after truth; and has surveyed the whole field of this argument more exactly and completely than any other of the hindu systems.

The first inquiry of this system is what is the way to attain perfect beatitude? and the answer given is 'that deliverance is only to be secured by a knowledge of the truth.

It then proceeds to examine what instruments are best adapted for the acquisition of that deliverance, and comes to the conclusion that they are four in number, namely, perception, inference, comparison and testimony.

It then minutely examines the various objects of knowledge, which are required to be proved and known; which objects are twelve in number: soul, body, sense, object, knowledge, the mind, activity, fault, transmigration, fruit, pain and beatitude.

Vedanta system of philosophy.—We now come to the Vedantic system, which makes its appearance in three stages of development. The germs of this philosophy and even its principal doctrines are contained in the Brahmana books of the Vedas; then it is seen in a more complete form in the Sutras of Vyasa; and lastly, this philosophy is recorded in the great commentaries which eminent scholars have written upon the original authorities.

The voice of hindu antiquity ascribes the origin of the Vedantic system to the sage Badarayan, otherwise named Veda-Vyasa. The manner of his birth is thus described in one of the works attributed to him,

'of birth and death, a multiplicity of souls is to be inferred.'

'*Transmigration of souls*;' the fact of transmigration none of the systems dispute, it is allowed by all; as a man casts off his old garments, and puts on new ones, so that soul having left its old 'mortal frame, enters into another which is now.'—*Elphinstone's History of India. Bunsen's Egypts place. Tod's Rajasthan, Vol. I. p. 26. Tennant's Christianity in Ceylon, p. 199.*

BRAHMANY, a former kingdom of the Dekhan. It had several sovereigns, Hussain Gangavi, Brahmani, ascended the throne A. D. 1347 and died A. D. 1358. His son Mahomed attacked Telingana and Vijianagar and died in 1375

Hussain Gangavi Brahmani	1347-1358
Mahomed „ „	1358-1375
Majahid Shah „ „	1375—1379

The last king was Mahomed Shah who ascended the throne A. D. 1482, and reigned 37 years, in which period, the kingdom broke up into five independant states, viz. Bejapore, under Ali Adal Shah; Ahmednuggur by Ahmed Nizam-Shah; Berar, by Amadul-mulk; Golconda by Kuli Kutub Shah, and Bed by Ahmed Barid. These states continued for 150 years incessantly at war with each other, from which the country was so destroyed that portions of it long lay waste, and even yet, are, perhaps, the most sparsely peopled parts of the peninsula.

BRAHMINY, a river of Orissa rises in the Palamow table-land, lat. 23° 25' lon. 84° 18' runs S. E, into. the Bay of Bengal, near Pt. Palmyras. Length, 410 miles.

BRAHMAPURI. A town on the Bhima river. See India, p. 324.

BRAHMAPUTRA, a river of the N. E. of India, flowing into the Bay of Bengal.

The sources of the Brahmaputra proper may be assigned to Lat. N. 33°, 32½°, and Long.

E. Gr. 97° 30'. The first snow covered mountains occur in Lat. N. 28¾°. The Brahmaputra is called by the Tibetants Zayŏ-chu, after the province Zayö, through which it flows, the Mishmi and Singpho give it the name of Talu Ka. Its direction as far as Lat. N. 27° 55′ is nearly due south, from the entrance of the Galum river to the Du river north-west, and from this point to Sádia south-west.

The Brahmaputra rises among gigantic glaciers to the S. E. of lake Mansarowar, runs nearly east for 600 miles, and at some places, is a broad stream used for traffic. It receives seven great tributaries each equal to the Ganges discharging about 40,000 cubic feet of water per second. This mighty river then runs through the N. E. of India: from Brahmakund to Goalpara is a mean length, exclusive of its numerous small curves, of more than 400 miles.

The entire surface of Assam presents a gentle uniform slope, with a few isolated granite hills, sometimes of no considerable mean elevation. The Brahmaputra nowhere presents any remarkable contraction of its bed, and the only rapid of importance is situated fifteen miles below its confluence with the Dihong. The level of the Brahmaputra at Sadia is 210 feet. A little to the south of the entrance of the Tista begins that part of the river where the stream branches off in the shape of a delta, and shortly joins that of the Ganges. The ebb and flood of the tide extend in the season when the river is low, upwards beyond Dacca; the fall from Sadia to the delta consequently amounting to half a foot per mile. Sadia is situated near the spot where the most considerable of its affluents join the Brahmaputra, viz., the Dihong (a river identical with the Tibetan Zambu into which, before its confluence with the Brahmaputra, flows the Dihong.) The Brahmakund is a very deep basin-shaped enlargement of the river, just before it emerges from the mountains to descend into the plains of Assam. The velocity of the current, which both above and below the Brahmakund is very great, suffers a great diminution at this point. In this S. W. course, along the whole length of the left shore of the Brahmaputra, and nearly parallel to the broad valley through which it runs, we meet with a longitudinal range of secondary hills, inhabited by the various scattered tribes of the Naga, Khassia, Jaintia, and Garro in the Patkoi, Khossya and Garro hills. These latter hills run south-east, skirting the rice fields of Mymensingh, Comillah and Noa Colly, and forming the greater part of Chittagong and Arracan, down to the Irrawaddy. It disembogues into the Bay of Bengal, through three mouths, after a length, in the plains of 933 m. It receives in its long course the Sanpoo, 1000; Dihong, 140; Noh-Dihong, 100; Boree Dehing, 150; Soobu-Sheeree, 180; Monas, 189; Bagnee, 150; Guddala, 160; Durlah, 148; Teesta, 313; Barak, 200; Goomtee, 140 m. The branches of the Brahmaputra, together with those of the Ganges, intersect Lower Bengal in such a variety of directions as to form a complete system of inland navigation. The Brahmaputra begins to rise in April owing to the melting of the snow at its alpine sources. About the 1st July it is at full flood, and all the level country is submerged, herds of buffaloes deer and hogs then swim for refuge to the hills. The Brahmaputra drains Assam in every direction. It is known in Assam by the name Hiranyo or golden. In the rainy season it rises 30 or 40 feet above its lowest level, overflows its banks and inundates the country like an inland sea. In the dry season it is a labyrinth of half filled channels, rendering the navigation intricate and fit only for steamers of light draught. It is not navigable higher than Dibrughar. As seen from Ogri hill near Tezpur, the river is sweeping along in a bed of from ten to twelve miles in breadth, with numerous islands, covered with canes and shrubs. The chief towns on the banks of the river are Bishnath, Durrung, Gowhatty, Goalpara, Nusseerabád. It is navigated from the Bay of Bengal to Dibroogurh near the head of the Assam valley within 500 miles of Pengshaw, the point reached by Captain Blakeston on the Yangtsekiang river. Of these 500 miles 300 are known. Colonel Briggs has gone to Sádia, 50 miles to the east of Dibrogurh by steamer, and if this route can be opened, the rich province of the Yangtsekiang will be opened to India.—*Schlagintweit's General Hypsomentry of India, Vol. II, p.* 98. See Assam.

BRAHMA-RANDHRA. Pineal Gland: See Yug-byasa.

BRAHMAHARSHEE, SANS. From Brămhā̆, and rishee, a sage.

BRAHMA SAMPRADAYI OR Mad'havachari, a small Vaishnava sect of hindus in Southern India founded by Madhavacharya, a brahmin, son of Madhige Bhatta, born A. D. 1199 in Tuluva. At Udipi, Madhyatala, Subrahmanya, and other places, he established temples, and eight maths in Tuluva, below the ghats. The Superiors or Gurus of the Madhwa sect, are brahmins and Sanyasis or profess cœnobitic observances: the disciples who are domesticated in the several maths, profess also perpetual celibacy: lay aside the brahmanical cord, carry a staff and a water pot, go bareheaded and wear a single wrapper stained of an orange color with an ochry clay. They are usually adopted into the order from their boyhood and acknowledge no social affinities nor interests. They regard Vishnu as the

Supreme Spirit, as the pre-existent cause of the universe, from whose substance the world was made.—*Wilson.*

BRAHMA SIDDHANTA. The second of the authentic Sastra.

BRAHMA SAVARNI. One of the 14 patriarchs who are supposed to preside successively over the 14 Manwantara of the Calpa.—*Warren, Kala Sanhita.*

BRAMHASTRA, SANS. From Bramha, and Astra, a weapon.

BRAHMASUTRA. See Arian, Brahma, Sutra, Veda.

BRAHMA VAIVARTTA PURANA. See Sacta.

BRAHMESWARA in Cuttack, not far from Bhubaneswara, where a slab now in the Museum of the Asiatic Society of Bengal, was found with an inscription in Sanscrit verse. It commemorates the temple of Brahmeswara being erected to Siva by Kolavati, the mother of Udyotaka. The era Samvat 18 is used. The temple was no doubt erected after that to Siva at Bhubanesar, which Mr. Stirling says was completed A. D. 657, and that at Kanarak A. D. 1241. If the Samvat era 18 be that of Gaur of the dynasty that subverted the Bhupala, it corresponds to A. D. 1141.—Vide *J. A. S. B., Vol.* V, *p.* 660. *Vol.* VII, *p.* 557.

BRAHMI. SANS. Argemone Mexicana.—*Linn.*

BRAHMINI. A name of Saraswati as goddess of learning. Also any Brahman woman.

BRAHMINICAL CAVES. Of this class of rock-cut temples, the finest specimens are at Ellora and Elephanta, though some good ones exist also on the island of Salsette, and at Mahabalipur. In form, many of them are copies of and a good deal resemble the buddhist vihara. But they have not been appropriated from the buddhists, as the arrangement of the pillars and position of the sanctuary are different. They are never surrounded by cells as all Vihara are, and their walls are invariably covered or meant to be covered with sculpture, while the Vihara are almost as invariably decorated by painting, except the sanctuary. The subjects of the sculpture of course always set the question at rest. To the class of brahminical structures which consist of rock cut models of structural and brahminical temples, belong the far-famed Kylas at Ellora, the Saivite temple at Doomnar, and the Ruth at Mahabalipur. This last is cut out of isolated blocks of granite, but the rest stand in pits.

The Indra Subha group at Ellora are a separate class, but whether they are brahminical or Jaina is undecided. The Kylas at Ellora is a wonderful work of art—is one piece of rock—in fact a small hill cut into a temple. The Ellora caves are excavated in a porphyritic green stone.

BRAHMINICIDE. This is the sin of killing a brahman. The Datya, according to the hindu mythology, were brahmans, and were slain by the gods: but were resuscitated by Sukra, their guru, and attacked the gods in Swerga, from which the latter fled in various disguises; Indra as a peacock, Yamuna as a crow, Kuvera a lizard, Agni a pigeon, Nairat a parrot, Varuna a partridge, Vayu a dove, &c. Indra thus lost his heaven: but he afterwards slew Vitra, the Datya, and committed the crime of brahminicide, on which account he withdrew from heaven and performed penance. This myth seems to be either an account of one of the ancient wars between the Arian brahmins and a race with whom they came in contact, or a relation of the suppression of the vedic naturalism.—*Cole. Myth Hind. p.* 376.

BRAHMINY GOOSE. Casarca rutila.

BRAHMANY KITE. Haliastur Indicus. In Bengal, the Kites and braminy Kites breed chiefly in January and February, and disappear during the rains.

BRAHMO-SAMAJH. A very small religious reforming sect in Bengal, composed of highly intellectual men. They regard it as a truly pure theism which recognises the absolute unity and spirituality of god, the abolition of caste and the elevation and instruction of woman. During a very few years, Brahmoism ran through three different stages: in the first it had for its foundation Vedic testimony tempered by reason, in the second edition, Reason and Philosophy; and about 1870 it was supposed to stand on Intuition guided by Reason. The progressive Brahmo followers have, indeed, gone through all these changes, but quite one-fourth of the total number of Brahmo rest on Vedic testimony and nearly one-third look up to reason alone. And though the Intuitive Brahmo have done away with Srads, Anoprashans, &c., their brethren of the first stage perform those hindoo ceremonies in all their moods and tenses. The Brahmo of the second stage hold a middle place. On its decline, another theistical body arose, the Dharma Sabaa.

BRAHMYA, in hindu astronomy, the Yoga Star of the 25th Lunar mansion, "a" Pegasi. —*Warren.*

BRAHUI. A race occupying part of Beluchistan on the S. W. of India, who speak a Dravidian tongue. Pottinger says it is so dissimilar in its sound and formation that he did not recollect to have marked in it a single expression in any way approaching to the idiom of the Persian, and he adds that it contains a portion of ancient hindu words. Dr. Cook supposes that the Brahui race were Tartar mountaineers who gained a footing in Beluchistan, and supplanted the previous occupants whom he supposes to have been of hindu origin. The Brahui, with the Rind and Lumri comprise the Beluch tribes proper. The Brahui are divided into an indefinite number of tribes and Khel, and are an unsettled and wandering race, always residing in one part of the country in summer and emigrating to another for the winter season and are constantly shifting, for pasturage. The Baluchi has a tall figure, long visage, and raised features. The Brahui have short thick bones, with round faces and flat lineaments and numbers of them have brown hair and beards. Their name is said to be from an affix " boan" and " roh" a hill, and the name of a Baluch race, the Nharui, is said to mean " not mountaineers." The Brahui have no religious men whether syed, pir, mullah, or fakir. They are sunni mahomedans and their political chief is the Khan of Kelat.—*Dr. Cook. Pottinger's Travels.* See Baluch ; Dravidian ; Kelat ; Kirman ; Khozdar ; Kappar ; India, Sind.

BRAHU MARICHA, Sans. Capsicum frutescens, Cayenne Pepper.

BRAJ, a district in the neighbourhood of Mathura and Brindaban, Braj-bhasha is a term applied to the hindu tongue of that district.

BRAIN CORAL, or Meandrina. See Coral.

BRALLAH. The Malayala name of a tree that grows on the Malabar coast to about eight inches in diameter, and sixteen feet high. It is used by the natives on the coast for boats and for timbers and knees in larger vessels : it is considered strong and durable.—*Edye, M. and C.*

BRAMA DANDA PURANA. A religious book of the hindus, the object of which, is similar to that of the Skanda Siva Purana and Linga purana, viz. to inculcate the worship of the Lingum. See Lingum.

BRAMATSA, Hind. Astragalus multiceps.

BRAMHACHARYA, Sans. The profession of a Bramhachari. In hinduism, the conditions of a religious student, leading a life of continency and self-denial. Mr. Ward derives it from Bramha, and char to move.—*Wilson.* See Hindu ; Sanyasi.

BRAMBANG, Malay. A sour fruit used for chatnies and in curries, perhaps the " Bilimbi," Averrhoa bilimbi. It is also said to mean the onion, Allium cepa.

BRAMHADANDI Sans. Tel. Argemone Mexicana. It was originally introduced from Mexico in ballast, but now flourishes luxuriantly in all parts of India A pale yellow, limpid oil, may be obtained in large quantities from the round corrugated seeds, it is sometimes expressed by the natives and used in lamps, but is doubtless adapted to other and more important uses. In North Arcot it costs from Rs. 1-14-0 to Rs. 2-1-0 per maund.—*Madras Exhibition of* 1855. See Argemone mexicana.

BRAMHA-DATTHA, Sans. From Brahma, and dăttu, given.

BRAMHA-GNANEE, Sans. From Brămha, and Gnanee, the wise.

BRAMHO. A name given by Mr. Hodgson to the Kusunda, a Bhot tribe occupying the dense forests of the central region of Nepaul.

BRAMHANA, Sans. He who knows Bramha, from bramha.

BRAMHA-VOIVARATTA, Sans. From bramha, and voivarta, manifestation.

BRAMHOTTARA, Sans. From bramha, and utara, belonging to.

BRAMI, Hind. Anemone *sp.* also Taxus baccata ;—Beng. Sarcostemma brevistigma.—*Wight.*

BRAMIA INDICA. Syn. of Herpestes monniera.—*H. B. Kunth.*

BRAMINHULLY, in L. 77° 9′ E. and L. 14° 40′ N.

BRAMINNYPUT-PETTAH, in L. 79° 34′ E. and L. 13° 35′ N.

BRAMUPPULLY. A town in L 79°. 55′ E. and L. 15° 0′ N.

BRAN, Hind, Quercus annulata, also Ulmus erosa.

BRAN.

Bhusa…….	Guz. Hind.	Towru or Toudu….	Tam.
Sakam…… … …	Malay.	Towru, or Toudu….	Tel.

the thin light skin or husk of wheat, separated by means of the sieve from ground wheat.—*Statistics of Commerce.*

BRANCH OF A TREE.

Ghussun……. ….	Arab.	Shakha ………..	Malhal.
Thit-kain.. …….	Burm.	Dali…. …….. …	Mahr.
Shakavu…………	Can.	Shakh…. … … …	Pers.
Dalia………………	Duk.	Shakha…… .. ……	Sans.
Dankalu…… … ..	Guz.	Kalai……….. …..	Tam.
Dalia……… …… …	Hind.	Komma… ….. .. …	Tel.

BRANDEWYN, Dut. Brandy.

BRANDY, Eng.

Brandewyn…… …	Dut.	Vinum adustum…	Lat.
Eau de vie …………	Fr.	Aguardente ….. …	Port.
Brandevin……………….		Wino………….. …	Rus.
Brantewein…… …	Ger.	Aguardiente…………	Sp.
Aquarzente… ………	It.		

A spirit largely imported into India from France and England, obtained by distilling wine. Its qualities vary with the kind of wine employed. It is manufactured in the south of Europe, from white or pale red wines and the skins of grapes—cognac is made from the palest,—Eau de vie, is from dark red wines ; British brandy is a compound of rectified spirits ; upwards of a million gallons are re-exported from Britain.

Brandy began to be distilled in France about the year 1343, but only as a medicine, and was considered as possessing such marvellous strengthening powers that the physicians termed it Eau de vie, "the water of life." Raymond Lully, a disciple of Arnold de Villa Nova, considered this admirable essence of wine to be an emanation from the Divinity, and that it was intended to re animate and prolong the life of man. He even thought that the discovery indicated that the time had arrived for the consummation of all things—the end of the world. —*Statistics of Commerce, Quebec paper.*

BRONG-H-BRI. The female yak.

BRANKUL, HIND. Ulmus campestris.

BRANNU, HIND. Ulmus erosa.

BRANSH BRANTI, HIND. Myrsine Africana.

BRANTEY—? In Penang, a light brown coloured, inferior, weak, wood; used for building.

BRANTEWEIN, GER. Brandy.

BRAPU BRAS, HIND. Fagopyrum esculentum.

BRAS, HIND. Rhododendron arboreum.

BRAS, MALAY. Rice.

BRAS-BRAS. A tree of the Malay Peninsula called by Europeans the Glam tree, furnishes a paper-like bark much used in caulking the seams of vessels. Wood used as floats for fishing nets.

BRASILETTO WOOD, ENG. Cæsalpinia sappan.—*Linn.*

BRASILIEN-HOLZ, GER. Brazil wood.

BRASILIEN-HOUT, DUT. Brazil wood.

BRASS.

Missing, Messing Gilkoper, Geelkoper	DUT.	Orichalcum; Aurichalcum	LAT.
Cuivre jaune, Laiton	FR.	Kuningan, Loyang, tambaga-kuning	MALAY.
Messing	GER.	Selenoi-mjed	RUS.
Pital	GUZ.	Laton, Azofar	SP.
Nehest	HEB.	Pittalei	TAM.
Pital	HIND.	Itadi	TEL.
Ottone	IT.		

Brass is an alloy of copper and zinc, generally the yellow alloy with about an equal weight of zinc and copper, called *yellow brass*: copper alloyed with about one-ninth its weight of tin is the metal of brass ordnance or gun metal. Similar alloys used for the *brasses* or bearings of machinery are called *hard* brass, and when employed for statues or medals they are called bronze. Brass is extensively used in India for cooking and other domestic utensils, and is in greater request than copper among the natives. Generally, mahomedans use copper and hindus brass utensils. It is imported into Bombay from England (*Faulk.*) but is largely manufactured in many parts of the country. An excellent specimen of *casting in brass* and bronzing was exhibited at the Madras Exhibition of 1855. Brass is manufactured in the more important cities of the Panjab; for smaller work they prepare the alloy in their own "kuthâli" or crucibles; for making the larger sizes, however, the gagara, shamadan, &c., they prefer the fine sheet metals imported from Europe. Besides yellow brass, a metal giving a beautiful sonorous ring when struck, and called "Phûl" or "Khâni," is made in the Panjab: "Roin," a genuine Bell metal, is also manufactured; also an alloy called "barth," and an inferior one called "kuth." The brass used in India for pots by the natives generally is of a very inferior description, the workman finding it profitable to employ an undue proportion of the cheaper metal; good malleable brass is found occasionally in old pots, probably from the number of times it has been melted and worked up causing the metals to combine more perfectly and the excess of zinc to be expelled by frequent heatings.

Good brass may be made by fusing two parts of copper and one of zinc; but various proportions should be used according to the purpose required. The Telugu names of substances used in alloying are

Copper, Zinc, Tin, Lead, Antimony	ENG.	Ragi, Sattu, Tagarum, Sheshaw, Soorma	TEL. and HIND.

These metals are used in various proportions by native braziers to form brass, Gun metal, *lokam*, pewter *satki*, bell metal, *kansu*, and Biddery ware. Occasionally, silver is added to form gongs and bells. In general, however, the proportions used are regulated by reducing the proportions of the more expensive and increasing those of the cheaper metal as far as may be practicable. Repeated meltings by drawing off the excess of zinc leave a good malleable brass, and for this reason old brass is much sought after by smiths when they desire it for any work requiring it to be particularly malleable. Guns taken at Kurnool were little better than spelter.—*Tomlinson: M. E. Mr. Rohde.*

BRASS CAMPHIRE.

Brass-capur	GUZ.	Karpuram	TAM.
Bruss-capur	HIND.	Do.	TEL.

This commercial name is a corruption of Barus camphor also called Borneo Camphor, Camphor of Baras, and Malay Camphor. It is the product of the *Dryobalanops camphora* of Sumatra, Borneo, and the Malayan Peninsula. It is found only in small quantities, in concrete masses, in the fissures of the wood. It is more fragrant, and less biting and pungent than the common camphor, and is held in much higher repute. It is imported into Bombay from China.—*Faulkner.* See Camphor; Dryobalanops.

BRASS-FOUNDER. The brass-founder or brazier trade in India, is almost exclusively in hindu hands; and he forms one of the five artizan classes, the other four being the goldsmith, black-smith, stone-cutter and carpenter. These castes all wear the Zonar or sacred string. They do not allow any brahmanical interference with them, have their own priests and ritual, and they bury their dead, in a sitting posture.

BRASSAK. A sub-division of the district of Pangkal-pinang in the island of Banka producing much tin. See Tin.

BRASSICA.—*Linn.* A genus of cruciferous plants, containing several very important alimentary species, the Brassica oleracea, cabbage, and the red-leaved variety of that species; also the B. campestris and rapa (rape), B. napus, turnip, and the variety oleifera, cultivated for its oil, consumed to an immense amount in France for illuminations.—*O'Shaughnessy, page* 188.

BRASSICA CAMPESTRIS,—*Linn.* Swedish Turnip, ENG.

BRASSICA CHINENSIS. In Shanghae oil is obtained from this.

BRASSICA ERUCA.—*Linn.* Garden Rocket or striped flower rocket.

BRASSICA ERUCASTRUM, L. of France, Italy, Switzerland, &c. is largely cultivated in the Punjab for its seed and oil, the cost of Teorah oil is from 3 to 10 seers per Rupee. It is used for burning.

BRASSICA NAPUS, L. *Rape ; Wild Cabbage ;* Colza, *Cole Seed* or Sursul of Guzerat. Native country unknown, much cultivated in Europe. Fl. small yellow, Feb. and March ; *fr.* March.

BRASSICA OLERACEA.

Thæm bau mung la	BURM.	Cabbage...........	ENG.
Kopi	HIND.		

Amongst Europeans both in Europe and India, a highly esteemed vegetable.

(*a.*) *Acephala D. C.*
ramosa ; (Cavalier Cabbage.
vulgaris ; (Common green Cole-wort,)
quercifolia ; (Oak-leaved Cabbage).
sabellica; (Scotch Kale.)

(*b.*) *Bullata, D. C.*
major ; (Savoy Cabbage,
gemmifera ; (Brussel's Sprouts,

(*c.*). *Capitata, D. C.*
depressa ; (Drumhead Cabbage).
sphærica ; (Great round Scotch Cabbage.)
obovata , (Penton Cabbage.)
elliptica ; (Early York Cabbage.)
conica ; (Sugar-loaf Cabbage.)
rubra ; (Red Cabbage.)
caulo-rapa, D. C., (Kohl-rabi.)
botrytis, D. C.

(*aa.*) *Cauliflora.*
Cauliflora ; (Cauliflower, Phool-kopi.)
asparagoides ; (Broccoli.)

BRASSICA RAPA.—*Linn.* The turnip,

Mung-la-do-waing.	BURM.	Gohheu....	SINDH.
Shalgam	BENG. PERS.	Luft......	ARAB.

Turnips are grown in Europe, India and the Tenasserim Provinces.—*Mason.*

BRASS LEAF, or *tinsel*, is manufactured by the Chinese to an enormous extent for making the *kin-hwá* or 'golden flowers,' used in worship. It is exported to India, in boxes estimated to hold 50 catties.—*Morrison, page* 143.

BRASS-SMITHS. See Brass founders ; Braziers. Polyandry.

BRATA, HIND. Ephedra alata.

BRAUGBANG. JAV. Onion.

BRAUNEA MENISPERMOIDES.—*Willd.* Syn. of Cocculus acuminatus, *D. C.*

BRAVA. A town on the east coast of Africa, in lat. 1° 7′ N. long. 44° 3′ E. which lies close to the sea—*Horsburgh.*

BRAZEN AGE. See Kalpa ; Surya-vansa.

BRAZIER, of India, is the Kummaler, one of the five artizans of the country. They wear the zonar. See Brass-founder.

BRAZIL CHERRY has spread itself all over the Neilgherry, the Pulney and Shevaroy mountains of Southern India.

BRAZILIAN ARROWROOT. See Cassava manioc.

BRAZILIAN BARK. See Inga.

BRAZILIAN ELEMI, called also Accouchi balsam, is a resin obtained from the Icica heterophylla.

BRAZIL WOOD, QUEEN'S WOOD.

Brasilienhout... ..	DUT.	Legno del Brasile, Verzino	IT.
Bois de bresil...... ...	FR.	Pao Brazil ; Pao de Rainha..........	PORT.
Brasilien-holz... ...	GER.		
Madera del Bresil...	SP.		

A wood is employed by cabinet makers in Europe, but its principal use is in dyeing red. It is a commercial term for woods procured in many parts of the Western Hemisphere, from one or two species of Cæsalpinia, West Indian and South American trees, but, within the last fifteen years, from the *Cam Wood* imported from Africa. The true Brazil wood is supposed to be the Bahia nitida, which yields a finer and more permanent colour than any other.—*Toml. Faulkner ; McCulloch.* See Cæsalpinia, Dyes.

BRE, HIND. Quercus Ilex, Eremurus spectabilis.

BRE, also pre. Tib. $\frac{1}{20}$th of a bushel.

BREAD, may be leavened, or unleavened or unfermented : in the latter, flour, water, with perhaps the addition of salt, are alone employed. In the former the substances employed are yeast in Europe, and the palm wines or toddies of Eastern and Southern Asia. And the substitutes for these are Sesqui carbonate of ammonia ; carbonate of soda and hydrochloric acid; or carbonate of soda and tartaric acid. The bread stuffs of commerce consist of the nutritious cereal grains, the tuberous rooted plants and the farinæ yielded by trees; also wheat, barley, oats, rice, maize, millet, Guinea corn,—the sago of palms, the plantain and banana; the bread fruit tree; the edible root crops and starch producing plants, which are a somewhat extensive class, the chief of which, however, are the common potato, yams, cocos or eddoes, sweet potatoes, the bitter and sweet cassava or manioc, the arrowroot and other plants yielding starch in more or less purity.

Wheat and wheat flour, maize, and rice, form very important articles of commerce, and enter largely into cultivation in various countries for home consumption and export, a portion being consumed in the arts—as starch for stiffening linens, &c., and for other purposes not coming under the term of food. The kind of bread in common use in a country depends partly on the taste of the inhabitants, but more in the sort of grain suitable for its soil. The Chinese use little bread and that little is generally of wheat-flour. Cakes of wheat-flour, prepared on the girdle, is a common article of diet amongst the races of northern and central India. Further south, on the table lands of the Peninsula, the natives of India use unleavened cakes made of the flour of the Indian corn, the Zea mays rather less nutritious than that made from wheat, but more fattening, in consequence of the greater quantity of oil contained in it. Amongst the millets, bread is made of the great millet, Sorghum vulgare; the spiked millet, Pencilloria spicata; and the very poor of the people use the hard Raggy, Eleusine corocana, in the form of cakes or porridge. Barley is occasionally used to the westward. Along the seaboard, of all Southern Asia, and eastward into China however boiled rice is the great article of diet, and it is often cooked, with unfermented palm wine, into the cakes, familiarly known in India, as "hoppers."

Rice flour is scarcely ever made into fermented bread, although it is said to be occasionally mixed with wheat flour, for that purpose. The superiority of wheat to all other farinaceous plants, in the manufacture of bread, is very great. Its essential constituents are starch, also called farina or fecula, gluten, and a little sugar and albumen. It is occasionally adulterated with alum, which is added to whiten the flour, and to enable it to retain a larger quantity of water. Salt is also employed in the adulteration of wheaten bread, to whiten the flour and enable it to hold more water, and carbonate of magnesia is improperly used to obtain the same result. In Eastern and Southern Asia, the ordinary wood bread, the well known Sago, is made from the starch granules contained in the pith of several species of palms. It is largely used as an article of diet, alike for the robust labourer as for the invalid, and is extensively exported for the use of the sick, and the nursery. Amongst the Arabs burgoul is wheat boiled with leaven, and then dried in the sun. The dried wheat is preserved for a year, and boiled with butter and oil. Leavened bread is called Khubz.—*Robinson's Travels, Vol. II. p. 132. Tomlinson. Hassell,* (*Statistique des Cereales de la France par Moreau de Jonnes*) quoted by *Simmonds, p.* 217.

BREAD-FRUIT TREE, Eng. Artocarpus incisa, *Willde;* when cultivated, its seeds are abortive. It belongs to the natural family Artocarpeæ in which are the bread-fruit, fig, and mulberry, many of them of great utility to mankind. See Artocarpus; Ficus; Morus.

BRECHNUSS SCHWARZE, Ger. Jatropha curcas.

BREJ or brege pam, is an article which occasionally comes to the Panjab from Siberia (Sebere, Seetha or Seeth, by the natives of the N. W. Himalaya and Punjab, Scythia? It is seen usually as a lining to postins, caps, stockings, gloves, neckties, &c., from its nature it cannot be spun into thread; it is of a white color, with a certain gloss, and is supposed to be a species of eider down—it is fancy priced.—*Powell's Handbook, p.* 181.

BREMABDASUM, in L. 77° 31' E. and L. 8° 26' N.

BREN, Hind. Quercus annulata, also Ulmus erosa.

BRERI, Hind. Ulmus campestris.

BRES, Hind. of Kulu also Karma-bres Fagopyrum esculentum: buckwheat.

BREWERS' STRAITS or Salat Panjang, is formed between the mainland of Sumatra and Pulo Bulicasse, Pulo Padang, Pulo Rauto and Pulo Paniore.—*Horsburgh.*

BRI, Hind of Kúlù, according to Cleghorn, Desmodium *sp.*—.

BRIALI, Hind. Colebrookia oppositifolia.

BRIAR of Micah vii, 4, a species of Solanum.

BRICK.

Int	Guz. Hind.	Shengal, Shengkallu	Tam.
Bata	Malay.	Itika-rai	Tel.

A building material formed of clay, hardened either by the sun's rays or the heat of a furnace, the former being called sun-dried bricks and the latter burnt bricks. The various argillaceous earths are for the most part unfit to be used alone for brick making. Some are almost pure clay or alumina, and are strong and exceedingly plastic, but cannot be dri without splitting; others, being light and sandy clays or loams, are too loose to be made into bricks without the admixture of lime as a flux, to bind the materials. Others again, are natural compounds of alumina and silica, and, if free from lime, magnesia or metallic oxides, these are exceedingly valuable clays being from their infusible nature well adapted for making fire clays, for lining furnaces, for making crucibles, glass-house pots, &c. Fire clay is found in many places in India, and Dr. Hunter and the Madras Mint make firebricks equal to any imported and at less than half the cost. Bricks are still made in India by hand moulds, but in Britain they are now almost all made by machinery. Bricks, burned almost to vitrifaction, are much employed as a road material on all alluvial lands of India.

No authentic information is extant regarding the early history of brickmaking in India. It is known that sun dried unburnt bricks of a very large size were formerly employed in building and they may still be seen in the basements of some of the old ruined Jain temples at Heera Toombal in the Ceded Districts, Anagherry in the Southern Maharatta country and in the walls of the mud forts at Gudduk, Dummul and other localities. The bricks appear to have been usually 2½ feet in length by 15 inches in breadth and 7 or 8 inches in thickness. The seams are apparent from the effect of the weather, but the bricks cannot be separated without breaking. The basement and a good deal of the interior of the solid muntapums or pyramidal towers of these jain temples were built with unburnt bricks and the masonry and carved slabs, ornaments and pillars were erected over this foundation of earth work. This accounts for the dilapidated condition of parts of these temples. In some of the old forts in Southern India the lower part of the walls is made of unburnt bricks and the upper part of hewn stones. The more modern forts are chiefly constructed of mud embankments cased in large blocks of stone, very accurately fitted but not cemented with lime or mortar. In the ancient buildings of India, brick work does not appear to have been extensively employed; although in some of the temples we find the upper stories made of brick, while the lower ones are of stone. Bricks of superior quality, and many times the present ordinary size, are often discovered in Southern India, and in the Northern Circars, South Arcot and other Districts excellent specimens have been found, which indicate that formerly they were made of a much larger size, and that great attention was paid to their manipulation and burning. The bricks made in Madras 30 or 40 years ago, were also larger and of better quality than those now manufactured. The material used in Babylon was unburnt brick. Many of the ancient ruined cities of Persia are built of unburnt bricks beaten up with straw or rush, to make the ingredient adhere, and then baked in the sun. In the days of the Egyptian bondage, Pharaoh commanded the taskmasters of the people, and their officers, saying, "ye shall no more give the people straw to make brick, as heretofore; let them go and gather straw for themselves." (*Ex. V.* 7. "And they had brick for stone, and slime had they for mortar. (*Gen. I.* 4.) Assyria abounds with asphaltus, or bitumen. Herodotus, and many ancient authors affirm, that the walls of Babylon were cemented with it and Arrian says "The temple of Belus, in the midst of the city of Babylon, was made of brick, cemented with asphaltus."—*Mignan's Travels, p.* 166. *Dr. Hunter in M. E. J. R.*

BRICK TEA, is tea compressed into a solid form. This article and the Khata, or "scarf of felicity," are the great articles of trade between China and Thibet. A prodigious quantity of these goods is exported annually from the provinces of *Kan-Sou* and *Sse-tchouen.* The Tibetans might live in freedom and independence in the midst of their mountains, and care nothing about the Chinese, if they could only make up their minds to go without brick tea and scarfs of felicity.—*Huc. Chinese Empire, Vol. I. p.* 15.

BRIDE AND BRIDEGROOM. In the patriarchal history of Scripture, and in the early accounts of the manners of ancient nations, the daughter was always considered the property of the parent, the wife as the purchase of the husband, and the marriage contract as the deed of transfer. This is still the foundation of the hindu marriage ceremony and the mahomedan bridegroom by the dower purchases his wife of herself.—*Raffle's History of Java, Vol. I. p.* 325.

BRIDGE. A bridge has been metaphorically in use with many nations, to indicate the means of passage of the soul of the dead. The Parsi has the bridge Chinvat that leads to heaven and the mahomedan has the Pul-i-Sirat across which the good walk easily, but it is as sharp as a razor for the wicked whom it cuts in two. There is a bridge for the dead in Java, and in N. and S. America. In Polynesia a canoe is the object typified, as with the Greeks and Romans, with whom a boat was the supposed means of transport. The bridges in the S. E. of Asia are usually built of stone, brick, wood iron, bamboos, canes or twigs. The Arian hindu and mahomedan rulers in India, built but few bridges. The Bhot, Mongol and Tartar races of the Himalaya and Burmah had numbers of them. In Burmah, bridges are seldom wanting near villages where nullahs or inundated fields obstruct the communication near towns. They are sometimes of extraordinary length. The construction never varies. Large teak posts are driven in pairs or triplets, with bays between, not exceeding twelve or thirteen feet. Mortice holes are cut through those parts in which cross bearers are laid with beams and solid planking over those and a railing is added.

Turner tells us of a simple bridge, for the accommodation of single passengers, constructed between two opposite mountains, which consisted of two large ropes made of twisted creepers, stretched parallel to each other, and encircled with a hoop. (*Turner's Embassy, p.* 54.) This is the original of the Jhula or rope bridges of the Himalaya. Those above Serahan, opposite Miru, and at Poaree, whether swinging or suspension bridges, are, says Dr. Cleghorn, unsuited for the passage of sheep and mules. The elevation of the rope bridge (Jhula) at Tuni on the Tonse river is nearly 3,000 feet above the sea. In the bridges of the N. W. Himalaya the timbers of the following trees are used for ordinary wooden bridges. Alnus species; Bombax heptaphyllum, Cedrela toona; C. serrata; Phœnix dactylifera; P. sylvestris, and Salix alba. For swing bridges Andropogon involuta; Betula bhojputra; Cotoneaster obtusa; Indigofera heterantha Olea Europæa; Parrotia Jacquemontia and Salix alba.—*Turner. Drs. Cleghorn, Stewart* and *Mason.*

BRIEDELIA, *Species.*

Undooroo Wood.	ANG-TEL.	Undooroo Karra	TEL.

A timber tree of the Northern Circars.

BRIEDELIA LANCÆFOLIA, *Roxb.* A tree of considerable size, native of Bengal.

BRIEDELIA MONTANA.

Goonjun Mara	CAN.	Asanna	MAHR.

Found in Canara, common in Dandelee where it reaches a great size. Hardly inferior to teak and stands water equally well. It seems well worthy a trial for naval purposes. In Cuttack sells at 6 annas per cubic foot. It is a light brown coloured wood and strong. Plentiful in the Santhal jungles from Raneebahal to Hasdiha used for beams, planks and building purposes generally. The silk worm from which Tassa cloth is made feeds chiefly upon this tree.—*Cal. Engineer's Journal, July* 1860. *Dr. Gibson.*

BRIEDELIA MOONII, *Thw.*

Cluytia retusa, Moon's Cat. p. 71 (non Linn)—c. p. 3475.

Pat-kaa-la-gass. SINGH.

Common in Ceylon up to an elevation of 2,000 feet. The Singhalese consider this quite distinct from B. retusa which it, however, very closely resembles, differing in its somewhat larger leaves, axillary, not spiked inflorescence, and ovoid fruit. They are probably mere varieties of one species. The timber of both is useful for building purposes.—*Thw. En. Pl. Zeyl. p.* 279.

BRIEDELIA RETUSA, *Spr.*

B. spinosa, *Willd.*

Cluytia retusa, *Linn.* | C. spinosa, *Roxb. Cor. pl.*

Kat Takaa-la-gass. SINGH.

Common in Ceylon up to an elevation of 2,000 feet.—*Thw. En. pl. Zeyl. p.* 279.

BRIEDELIA SCANDENS.—*Willd. Roxb.*

Danki bura	TEL.	Chiri annem	TEL.
Siri annem	„		

BRIEDELIA SPINOSA.—*Willde. Roxb.*

Cluytia spinosa, *Roxb.*

Assanna	CAN. MAHR.	Mulla vengay maram	TAM.
Asun	CAN. DUK. MAHR.	Kora manu	TEL.
Mullu vangay.	MALEAL.	Kora man	„
Katu KœtaKœla.	SINGH.	Duria madde ?	„

This large tree is a native of several parts of Southern India. It is not uncommon in the alpine jungles of Coimbatore where it attains a considerable size. It is found in the Godavery forests, where its wood is esteemed as very strong and good. It is rather a common tree in the Bombay forests, both coast and inland. The wood is strong and tough and stands the action of water well: hence it is often used for the frames of wells, whereon the superstructure of masonry is erected. It is also used as beams for houses. This wood deserves, in Dr. Gibson's opinion, to be more extensively known than it is: cattle eat the leaves voraciously. They are said to destroy worms in their bowels.—*Drs Roxb., O'Shaughnessg, Gibson, Wight, and Cleghorn. Captain Beddome. Flor. Andh.*

BRIGGS, General, an Officer of the Madras Army, author of Letters on India.—Translation of Ferishta. Lond. 1829, 4 vols. A short account of the Sheilly family.—Lond. As. Trans. vol. vi. 77. Description of a Persian painting.—Ibid, vol. v. 314. On the land-tax of India.—Editor of the Persian Tarikh-i-Ferishta. He was assistant resident at Poonah, under Mr. Elphinstone as resident, and was there when the last Baji Rao moved out of Poonah and burned down the residency and with it his manuscript of the translation of Ferishta. When peace was restored he retranslated and printed it.—*Dr. Buist's Catalogue.*

BRIGGS, H. G., author of cities of Gujarashtra.—Bombay, 1849, 4 to. On the Parsees.—Bombay, 1852, 1 vol. 8vo. *Dr. Buist's Catalogue.*

BRIGU, in Hindu mythology, is a son of Brahma, and his name is frequently found in the hindu writings. It is related of him, that once on being asked, in an assembly of the gods, which was the greatest, Brahma, Vishnu, or Siva, he undertook the task of ascertaining the point by a somewhat hazardous experiment. —*Cole. Myth. Hind. p.* 7.

BRIHADRATHA, of the line of Pandu, father of Jarasandha, one of the Barhadratha dynasty of Indian kings. According to Bunsen, he ruled B. C. 866 to B. C. 847.—*Bunsen, III.* 547.

BRIHASPATI. See Hindu. Vrishaspati.

BRIHAT-CHAKRAMED, HIND. Sesbania aculeata.

BRIHATCHITRA, HIND. Cassia sophora.

BRIHUTEE, BENG. Solanum ferox.

BRIJGY, in L. 69° 7′ E. and L. 32° 24′ N.

BRIJKY, in L. 69° 29′ E. and L. 32° 24′ N.

BRIJ BHASHA, the Hindi proper.

BRIKU, BENG. Agati grandiflora.

BRILLIANT MACAQUE. See Simiadæ.

BRIMDU, BRIMLA, HIND. Celtis Caucasia.—*Willde.*

BRIMO OR DUNO, TIBETAN; the Cow of the Yak or Chaori tailed bull.

BRIM POSH, HIND. Nymphæa alba.

BRIMSTONE, ENG. Brimstein, GER. Gophrith, HEB. Sulphur.

BRINDA, SANS. Ocymum sanctum.

BRINDABAN. An ancient forest near Mathura were Krishna met the Gopi or shepherdesses.

BRINDABUN on the Jumna river, a place of hindu pilgrimage; hindus also make pilgrimages to Pooshkur in Rajputanah, to Dwarka in Guzerat; to Jaggenath at Pooree, to Badrinath in the Himalaya; to Benares, on the Ganges, to Ramisseram near Ceylon, to Punderpoor on the Kistnah; to Tripati, near Madras, Hinlaz on the coast of Meckran. Their religious mendicants even travel to Baku, the site of a sacred fire on the Caspian.—*Cal. Rev.*

BRINJ, PER. Brass.

BRINJ, PERS. Properly Birinj, husked rice.

BRINJAL, ANGLO-INDIAN. Solanum melongena.—*Linn.*

Egg-plant	ENG.	Dirgavartaka	SANS.
Bengan	HIND.	Bodingan	SUMATRAN.
Tarung, Trung	MALAY.	Kattarikai	TAM.
Vartaka	SANS.	Vankaia	TEL.

For culinary purposes, the vegetable egg, or brinjal, is one of the best vegetables in India. Several varieties are extensively cultivated and eaten by all classes. It is a large round-shaped fruit, both purple and white; another is white, thin and long; a smaller species again is pear-shaped, red and purple striped; and there is one seldom exceeding the size of an egg. They are all dressed alike and used both in curries and other native dishes, and are much on the tables of Europeans. Their propagation is by seed, at the commencement of the rains. The young plants are placed at about eighteen inches apart and require watering every third or fourth day.

BRINJARA. See Banjara.

BRINJARI DOG. See Canis familiaris.—*Linn*

BRINJARI, in L. 80° 35′ E. and L. 24° 0′ N.

BRINKOL, HIND. Berchemia, *sp.*

BRINZAL, ENG. Brinjal.

BRISHABDEO, properly Vrishabdeva, has the same meaning as Nand eswar of the Saiva sect, the bull being the effigy of both. In order to distinguish the particular pontiff to whom any Jain shrine is consecrated, it is only requisite to look on the pedestal for the symbol, as the bull, the serpent, the lion, &c., &c., each having his peculiar emblem.—*Tod's Travels, p.* 97.

BRISARI, HIND. Edwardsia mollis.

BRISTLES, ENG.

Borstels	DUT.	Ruma	MALAY.
Soies	FR.	Szezeciny	POL.
Borston	GER.	Schtschetina	RUS.
Setole	IT.	Cerdas	SP.
Setæ	LAT.	Setas	„

The strong hair from the back of the hog and wild boar used by brushmakers, shoemakers, saddlers, &c. Russia is the great mart for bristles.—*Faulkner. McCulloch Dict.*

BRISYA, called Vishu in the Carnatic. In hindu astronomy the 15th year of the cycle of Jupiter.—*Warren.*

BRITAIN, or Great Britain, a kingdom in the extreme west of Europe which now sways the destinies of British India. It is ruled over, in Britain, by a sovereign, with responsible ministers, and two houses of parliament, viz., the House of Commons and the House of Lords. And for India, there is, in Britain, a minister with a council of twelve, composed of men acquainted with India, and it sends to British India for administration a Viceroy and Governor General with a Governor for Bombay and one for Madras, with six Judges for the High Court, of Calcutta, Madras and Bombay. For the command of the three British Indian armies, Great Britain sends three Commanders-in-Chief, with several Generals of Division. Great Britain has many colonies, and its entire dominions are usually designated the British Empire, over which it rules by means of Viceroys, Governors General with councils, Governors with councils, Parliaments and commissioners. The area and population are as under:—

	Sq. M.	Population.
British N. America, Great Britain and British India	5,438,000	188,514,000
British Feudatory India	596,700	47,909,109
Colonies of Great Britain.	4,562,000	161,486,900

BRITASTAN, mentioned in the Brahmanda Purana, as the place of religious duty, is supposed by some, to be the Island of Great Britain. It is also called Swita dwip, or the *White Island*, and Suvarna dwip, or the Golden *Island*, is conjectured also to be Ireland. The British Islands are (it is said by some), sometimes called Chundra dwip, and likewise Tricalasa, or the Island with three Peaks, viz., Rajatakuta, Ayacuta and Suvarnacuta.—*Warren Kala Sankalita*.

BRITISH INDIA. When first the British set foot in India the foundations of the old Moghul empire were thoroughly broken up, waves of conquest had, passed over it and robber chiefs had long been making invasions of their peaceful neighbours, the normal practice of their rule. But, with the formation of factories and the hiring of troops to defend them, was laid, the foundation of a central power which gradually grew in strength sufficient to control the various chieftains and extend its efforts from Cape Comorin to the Indus. The British administration in India has been purely that of a military government, and the entire policy has necessarily conformed to military necessities, and it is only since the middle of the nineteenth century that the state of the country has permitted its rulers to throw the energy of the Government into the path of peaceful development of its resources.

The first occasion of the natives of Britain coming in contact with a force of natives of India, was in 1664, when Sivaji attacked and plundered Surat, on which occasion Sir George Oxenden won the applause of Aurungzeb, by an uncommon display of valour. Since then, wars have been incessant and many a name become illustrious.

Since the conquest of the Punjab by Lord Dalhousie in 1849, and of Pegu in 1852, the boundaries of the British empire of India, excluding Aden and the Straits Settlements, have been the Suliman range, the Karakorum, the water-shed of the Himalaya, Nepaul and Bhootan on the north; the sea on the west and south; and a line marked by no natural features stretching from the Yoma range irregularly in a southeast direction through Burmah to the tenth parallel of latitude. Roughly, British India may be said to be included within L. 8° and 37° N. and L. 66° 44′ and 99° 30′ E. involving 11,260 miles of external boundary. From Tenasserim by the Himalaya to Cape Monze in Sindh the *land* frontier is 4,680 miles, while the *coast* line from the Straits Settlements to Kurrachee is 6,580. The length of India from the Indus to Cape Comorin, on the meridian of 75°, is 1,900 miles: The extreme breadth is 1,800 miles, on the parallel of 28°. The whole peninsula contains an area of about 1,557,000 square miles and a population of 204,000,000 or 123 to the mile, all are governed by Great Britain with the exception of small territories held by Portugal and France; which stand thus:

Name.	Locality.	Square Miles.	Population.
India ...		1,557,000	204,000,000
Ceylon ...		24,700	2,088,027
French—			
Chandernagore	On the Hoogly ;		32,670
Karical ...	Coromandel Coast		
Pondicherry ...	Ditto. ...	191⅛	171,217
Yanaon ...	Orissa Coast ...		
Mahé ...	Malabar Coast ...		
Portuguese—			
Goa ...	Western Coast	1,066	
Damaun ...	Concan Coast ...	Not known.	363,788
Diu ...	South Coast of Kattywar ...		44,808

British India, is administered, chiefly directly, by British officials under a viceroy and Governor General, but to some extent indirectly through feudatory Native Chiefs, guided by British officers. No census of the Feudatory States has been taken save in isolated cases, and the surveys of them are not yet complete. But the following may be accepted as representing the portions of India governed directly by British officials, and those administered indirectly through Native Chiefs with subsidiary sovereign powers.

	Square miles.	*Population.*
Non-Feudatory...	960,210	156,000,000
Feudatory ...	596,790	48,000,000

British India as it stood in the middle of the nineteenth century was won by the East India Company which had been established in 1599. In 1636 Mr. Boughton, a ship's surgeon, obtained the privilege of planting factories in Bengal. The Presidency of Madras was constituted in 1639; that of Bombay in 1662 and that of Bengal in 1682. In 1773 the Governor of Bengal was made Governor General of India with certain powers, chiefly political and financial, over the other two. In 1784 a Board of Control was created in Britain composed of the king of Great Britain's ministers, who, in that capacity, bore the title of Commissioners for the Affairs of India, and this system continued until the year 1858, when British India was taken under the direct control of the Crown. In that interval, however, the Home Government of India had consisted of a Board of 18 members, called the Directors of the East India Company, and the President of the Board of Control. The Directors had mostly all the patronage as to appointments, except the higher offices and commands which were made in communication with the ministry, who likewise originated all questions of peace and war, possessed the power of reversing the acts of the East India Company and the Government of India, and also of sending out instructions on special matters to the Governor-General without consulting the Directors. Between the first formation of an English East India Company and A. D. 1858 the following were the chief changes :

1664. French E. I. Company formed and their capital built in 1674 at Pondicherry.

24th Jany. 1667-8. The first notice of tea in the company's records ; in a despatch to their agent at Bantam of that date, he is ordered to send home 100 lbs. of tea the best he can get.

1667. Charter renewed afresh and authority to establish a mint at Bombay.

1681. Sir Josiah Child published a treatise in which it appears that the Company then had 556 partners, 36 ships of from 100 to 775 tons, that the customs duties on the Trade amounted to £60,000 or 70,000 a year.

1686. An attempt projected by Sir J. Child to acquire territorial empire in India, failed.

1693. A fresh Charter. } in 1702 united
1698. A new Company. } under the title of the United Company of Merchants of England trading to the East Indias.

1692. Company's agency transferred from Hooghly to Calcutta.

1698. Company acquired a grant, from a grandson of Aurungzeb, of Calcutta, and two adjoining villages with leave to exercise judiciary powers over the inhabitants and erect fortifications. These were given the name of Fort William.

1715. An embassy went to Furhkhsere and obtained in 1717, by which they got the island of Diu, 37 townships in Bengal which gave them the command of the river for 10 miles S. of Calcutta and had the villages restored to them near Madras, which had been formerly given by the government of Arcot and resumed.

1724. Average of 10 years ending with 1724, the total value of British products annually exported was £92,410,12-6 and of bullion £518,102-11-0, total 617,513-8-10.

1741. Average of the 8 years ending in 1741 the annual value of British goods exported was £157,944-4-7.

1748. 7 years ending with 1748 they amounted to £188,176-16-4.

1732. Company reduced their dividend from 8 to 7 per cent.

1743. Renewed Charter.

1757. Plassey fought by Clive, with 700 European Troops 1,400 sepoys and 570 sailors and threw Bengal, Behar and Orissa into British hands.

1773. Bengal Presidency given a superiority over the others. Value of British goods exported was £489,803
1780. £401,166.
1772. Net revenues of Bengal, Behar and Orissa £2,126,766
1785 „ „ „ „ £2,072,963
1797 „ „ India £8,059,000
1805 „ „ „ „ £15,403,000

Company Exports.
1807. £952,416
1808. 919,544
1809. 866,153
1810. 1,010,815
1811. 1,033,816
} For private individuals during the 5 years ending with 1807-8, there was annually exported £305,496.

1813. Charter renewed, but merchants allowed to trade with Bombay, Madras, Calcutta, and Penang.
1814. Merchandise exported in value £870,177
1819. do. do. £3,050,741

1833. Company as traders abolished ; to govern India in a political manner till 30th April 1854.

22nd April 1854 all real and personal property of Honorable East India Company vested in the Crown, (who becomes liable for all claims, debts, contracts, &c.) since 1793 but is managed by the Company. Dividend is 10½ per cent. and may be redeemed any time after April 1784. Company stock is £6,000,000.

Law of Residence, and right to employment, &c.—3. and 4. W. IV., C. 85 SS. 87. No native of the said territories, nor any natural-born subject of His Majesty resident therein, shall by reason only of his religion, place of birth, descent, colour or any of them be disabled from holding any place, office, or employment under the said Company.

In their career of conquest, the British East India Company had been almost continuously successful. A severe reverse was sustained in Affghanistan in 1841, in which many thousand soldiers perished in retreat. But their most severe trial occurred in 1857 and 1858, in which years the native army revolted and many of the races both hindu and mahomedan rebelled. In 1857, the number of British soldiers had fallen very low and it was supposed that the disaffected soldiery of the Bengal Army took that opportunity to revolt. Much has been put forward as to the cause of that disaffection, but a general impression is that it had its suggestion in the Affghanistan disasters, though doubtless a great change had been effected in the temper of a naturally arrogant oriental race who respect, almost worship, might, by introducing amongst them rules and regulations suitable only for an army drawn from nations advanced in civilization. The contest for supremacy was severe and long continued :

In May 1857, there were in India

European soldiers	45,000
Native „	244,000
Semi Military Police ...	80,000
Total...	365,000

About 2,50,000 Native Soldiery were arrayed against the British power in 1857. Of the British forces were 45,000 Europeans and about 60,000 reliable native soldiery. These last were, before the end of 1857, increased to about 150,000 native soldiers, by the addition of the Sikh army from the Punjab, and before July 1858, there were over 80,000 British Soldiers in India. After that revolt, the Native Army began to be reduced, and by November 1866, it fell to 135,000 men with only 12 guns, against 150 in 1857.

The successive features of the revolt and re-establishment of authority were as under :—

Revolt of the Bengal native army was commenced at Berhampoor by the 19th Ben. N. I, on the 26th February 1857.

Revolt continued by the out-break of the native cavalry at Meerut, on the 10th May 1857.

Dehli massacre occurred on the 11th May 1857.

Ghazi-ud-din-Nugger—the mutineers were defeated on the 30th May 1857.

The Shah-Jehanapore massacre occurred on the 31st May 1857.

5th June 1857, the mutiny occurred at Jhansi and on the 8th the massacre occurred.

The massacre at Cawnpore of the Futtehghur fugitives occurred on the 12th June 1857.

The massacre at Gwalior occurred on the 14th June 1857.

A massacre occurred of the British at Cawnpore by Nana Rao on the 27th June 1857.

Massacre at Cawnpore on the 15th July 1857 by Nana Rao, of British women and children.

On the 20th August 1857 Dehli was captured.

Lucknow was entered on the 25th August 1857 by generals Havelock and Outram.

Delhi was assaulted on the 14th September 1857.

Lucknow was relieved by general Havelock on the 25th September 1857.

The second relief of Lucknow was affected by sir Colin Campbell on the 17th November 1857.

Cawnpore was relieved by sir Colin Campbell on the 28th November 1857, and the Gwalior contingent routed.

The battle of Nawabjgang in Oudh, occurred on the 14th June 1858.

Gwalior was re-captured by Sir Hugh Rose on the 28th June 1858.

The Government of the East Indies transferred to the Crown on the 1st September 1858.

On the 1st November 1858, it was proclaimed throughout India, that its government had been transferred from the East India Company to the British sovereign.

Bengal Native Army was reorganized on the 9th September 1859.

On the 20th August 1860 the Indian and British armies were amalgamated.

The Governor General was raised to the rank of Viceroy.

The Supreme Courts of Calcutta, Madras and Bombay were amalgamated with the Courts of Sadr Adalut of the three Presidencies, and the united body designated the High Court of Judicature. The Native Soldiers were reduced in numbers as the organization of the semi-military policy progressed.

The European and Native Forces in India were as under in the years:

	European.	*Natives.*
1839-40	35,604	199,839
42- 3	46,726	220,947
1856- 7	45,522	232,224
8- 9	106,290	196,248
1864- 5	71,880	118,315

In 1857, there were 6,944 European and 8,963 Native artillery : 3,136 European and 30,473 Native cavalry. In that year the revolt of the native army occurred and the policy since then has been to augment the European arm, remove all natives from the scientific corps and reduce their numbers. The composition of the Indian army in 1857 and 1865 was as under :

Europeans.

	1857.	1865.
Artillery	6,944	13,672
Cavalry	3,136	6,274
Infantry	33,254	48,945
Staff H. & C.		1,406
Engineer Sappers		438
Invalids, Veterans warrant ...		1,145
Total...	43,334	72,330

Natives.

	1857.	1865.
Artillery	8,963	1,465
Cavalry	30,473	14,674
Infantry	185,047	99,353
Engineer Sappers		2,853
Total ...	224,483	118,315

In 1858 the East India Company ceased to rule, and a Secretary of State with a Council of

15 members took its places: in 1861 the Indian Councils' Act was passed.

Northern India.—With the exception of the transfer of North Canara from Madras to Bombay and the addition of Sindh to Bombay on the conquest of that province, these Presidencies have retained very nearly their original limits, including the provinces conquered from the Peishwa and Guikwar between 1800 and 1818. But the succession of conquests in Northern and Central India and Burmah, gradually led to the formation of separate jurisdictions under Lieutenant Governors and Chief Commissioners.

Administration.—In 1853 the Governor General ceased to exercise any more direct supervision over Lower Bengal than over the rest of India.

Its Civil Government in Calcutta is carried on by a Governor General in Council, through five great departments, the Foreign, Home, Military, Finance and Public Works. There is, besides, a Governor and Council in Madras and the same in Bombay; a Lieut. Governor of Bengal; another for the Panjab, Commissioners of Oudh, the N. W. Provinces, Central India, the Berars, Mysore and British Burmah.

For the military control, there is one Commander-in Chief of all India who specially attends to the Bengal Army and European Corps, with Commanders-in-Chief of the Madras and Bombay presidencies, all of whom have seats in Council.

Every order issued from any of the five departments of the Supreme Government runs in the name of The Governor General in Council. Up to Lord Canning's administration, all matters were in truth so disposed of; but Lord Canning remodelled it into the semblance of a Cabinet with himself as president, and each member of the Government now holds a separate portfolio and despatches the ordinary business connected with it, on his own responsibility, only reserving matters of exceptional importance for the opinion of a colleague or the decision of the assembled Council. The particular branch of administration which Lord Canning, Lord Elgin and Sir John Lawrence all successively reserved for their own special charge, is the Foreign Office of India, the duties of which relate to all dependant chiefs and princes in India and all neighbouring foreign princes, beyond the limits. With such nations as Persia and China, where there is a diplomatic representative of the British Government, the Governor General acts in concert with the British Government.

Each Province is sub-divided into Zillahs, or Districts, under Collector-Magistrates or Deputy Commissioners with Joint, Deputy, Assistant and Extra-Assistants. In the Bengal Presidency these Districts are in most cases grouped into Divisions, each under a Commissioner supervised by a Revenue Board or Financial Commissioner. English Counties average 1,000 square miles in extent. In India they are much larger. In Bombay, for instance, Collectorates average about 6,000 square miles and Khandeish is supposed to be 15,000 square miles. There is no Revenue Board in Bombay. There are two Revenue Commissioners, between whom the Collectorates are divided. The Revenue Commissioner there corresponds immediately with Government and is also Police Commissioner of his Division. Each District has a treasury and a jail. In Lower Bengal, Districts are broken up into Sub-divisions under Joint, Assistant or Deputy Magistrates. Under the new constabulary system, introduced by Act V. of 1861, each District has a Superintendent of Police, and the Districts are grouped for police purposes into circles under Deputy Inspectors General, while the whole Police force of each Province is under an Inspector General. The constabulary, except on the North-Eastern and Trans-Indus frontiers, is a purely civil force organized on the Irish system, and subject in all respects, except internal discipline, to the civil authorities, that is, to Commissioners of Divisions and Deputy Commissioners, or Collector-Magistrates, of Districts.

The Provinces are administered by a covenanted civil service, an uncovenanted civil service and military officers of the Staff Corps.

The Madras Presidency consists of 20 Districts, including the city. The area is estimated at 140,726 square miles, and the total population at 26,539,052. By the quinquennial census taken on the 1st March 1867, the population of the Madras Presidency, exclusive of the city of Madras, was found to be 26,089,052 thus classified :—

Hindoos	24,172,822	Christians	414,096
Mahomedans	1,502,134		

The population of the city of Madras is supposed to be about 450,000, thus classified :—

		Death Rate per 1000. 1866.	1867.
Europeans and East Indians ...	17,219	38·1	28·8
Hindoos ...	365,576	30·6	27·2
Mahomedans ...	67,205	29·9	26·5

The approximate area and population of the Madras Districts including the city are as under :—

Districts.	Square miles.	Population.
Madras city......	27	450,000
Ganjam...	4,457	1,235,790
Vizagapatam	18,935	1,934,558
Godavery.........	7,535	1,427,472
Kistna.........	7,227	1,296,652
Nellore...	4,546	1,168,664
Cuddapah.........	9,177	1,144,759
Bellary...................	11,496	1,304,998
Kurnool......	7,470	770,857
Madras..................	2,183	804,283
North Arcot............	15,146	1,787,134
South Arcot............	4,779	1,261,846
Tanjore...	3,735	1,731,619
Trichinopoly	3,565	1,006,826
Madura......	8,790	1,946,389
Tinnevelly...	5,146	1,521,168
Coimbatore......	8,470	1,430,738
Salem......	7,604	1,619,233
South Canara...	4,206	839,688
Malabar......	6,259	1,856,378
	140,726	26,539,052

The water supply of the several districts is somewhat varied. The average annual rainfall during a period of five years ranged from 17·57 inches in Bellary to 146·31 inches in South Canara. The total area of the Presidency may be estimated as 130,000 square miles, being thus more extensive than Great Britain and Ireland and about the same size as the present kingdom of Prussia.

Ryotwary lands ... 16 million acres (actual.)
Inam lands......... 4¼ million acres (actual.)
Zemindary lands... 5½ million acres (estimated)
Malabar and Canara 2¼ million acres (estimated.)

The proportion of the irrigated land applied to the production of any crop, but rice is very limited.

The Madras Districts range from 2,000 to 19,000 square miles in extent. The Districts of Ganjam, Vizagapatam, Godavery and Kistna are on the north-east coast, to the east of the Central Provinces and Hyderabad. The other east coast districts are Nellore, Madras, Chingleput, South Arcot, Tanjore, Madura and Tinnevelly, the last named being situated in the extreme south of the peninsula. To the west of Madura and Tinnevelly, and on the west coast of the peninsula, are the Travancore and Cochin territories governed by feudatory rajahs. North of these states, on the same coast, are the Madras districts of Malabar and South Canara. The central districts of the presidency are those of Coimbatore, Trichinopoly and Salem, between Malabar and Madras, and those of Bellary, Kurnool, Cuddapah and North Arcot between Hyderabad and the Mysore country, which intervenes between Canara and Bellary and Nellore.

Several distinct races dwell in the Madras Presidency, Mahomedans, Aryan-hindus, and many non-Aryan tribes, but the bulk of the soil is possessed by the Tiling, Arava and Canarese peoples, three great nations of Tamulian origin.

The Madras Presidency may be described as of three parts—the Telugu country of the North, extending northwards from, and including, Nellore; the Tamil country of the South, and the Canarese and Malayalum districts of the Western or Malabar parts of the peninsula.

In the Southern division, where, the mahomedan influence had been very weak, the land was held by cultivating village communities who paid rent direct to the old hindoo sovereigns.

In the third or Western division, the village or communal gives place to the individual right to land free of all rent to the State, known as *Janm* or birthright. Malabar was prosperous, owned chiefly by wealthy capitalists but Canara had been over-assessed, prior to British occupation. The extent of land under cultivation in those portions of the Madras Presidency held on ryotwary tenure, has risen from about ten million acres in 1855, to sixteen million acres in 1865. In 1868-69 the area under cultivation increased by 202,696 acres.

Mr. Dalyell, Secretary to the Madras Government, estimated that there is produced an annual supply of 129 million cwt. of grain for the support of the population, or more than 5 cwt. for each person, being more than 1½ lbs. per diem, whereas a family of five can subsist upon 7 lbs. per day, without difficulty and three acres of superior land, supposing one acre to be irrigated, or four acres of unirrigated land would support such a family for a year.

Bombay and Sindh consist of 18 districts besides Bombay Island. The area is 131,298 square miles and the estimated population 13,038,609.

In the 13 Bombay districts the population was thus classified several years ago :—

Hindoos...	5,652,109	Mahomedans including Africans	779,264
Wild Tribes	913,976		
Low Castes	782,003	Jews ...	3,608
Jains ...	128,798	Parsees ...	132,563
Lingayets	565,447	Christians	57,766

In the five Sindh districts the population was thus classified :—

Mahomedans	1,354,781	Other religions	50,551
Hindoos	363,295		

The census of Bombay Island, taken on the night of 1st February 1864, shows the following results:—

Caste or Race.	Number.	Ratio.	Caste or Race.	Number.	Ratio.
Budhist or Jain ...	8,021	·98	Parsee... ...	49,201	6·03
Brahmin	30,604	3·75	Jew	2,872	·35
Lingayet	1,598	·19	Native Christian .	19,903	2·44
Bhatia	21,771	2·67	Indo-European ...	1,891	·23
Hindoo of other Caste	491,540	60·20	European ...	8,415	1·03
Hindoo Out-Caste ...	32,434	3·97	Chinese... ...	358	·04
Mussulman ...	145,880	17·87			
Negro-African ...	2,074	·25	All Races ...	8,16,562	100·

The surface of Bombay Island is about 18·62 square miles, or a square mile to every 42,104 of the land population. The inhabited houses were 24,206 in number; of these, 6,676 were thatched huts.

An average Bombay Collectorate contains twelve *taluqs* or divisions, each of which contains about one hundred Government villages, that is to say, villages that are not alienated and the total revenues of which belong to the State. Each village has its regular complement of officers, who are usually hereditary. The officers on whose services Government is mainly dependent consist of the *patel*, who is the head of the village for both revenue and police purposes; the *tullatee* or *koolkurnee*, who is the clerk and accountant; the *mhar* who is a kind of beadle; and the watchman. The patel and koolkurnee either hold a certain quantity of rent-free land, or are remunerated by a cash payment equivalent to a certain percentage on the collections. The mhar and watchman, in common with the other village servants, also hold land on more or less favourable terms as regards assessment, and receive, besides, grain and other payments in kind from the villagers. A village is, for Government or social purposes, complete in itself; and is, so to speak, independent of the outer world. The revenue accounts of a village are simple but complete. The survey-register is the basis of them. Every occupant is given a separate receipt-book, in which the total amount of his holdings is entered, and the patel and koolkurnee are bound under heavy penalties to record in it the sums he has paid. Each year, what is termed the *Jama-bandi* of the village is made, at which time the total amount of revenue due from the village is made out. In point of practice this is now, so far as Government interests are concerned, a very simple business, as there is little or no unoccupied land; and the *Jama-bandi* as nearly as possible represents the sum entered in the register.

There are two Revenue and Police Commissioners for the entire Presidency. These officers are constantly on the move in their respective Divisions during the fair season. They entertain appeals from the Collectors' decisions, and are the channels of communication between them and the Government. From June to October they both reside at Poona, which is also at that season the head-quarters of the Government.

Thurr and Parkur, in Sindh, is a sandy desert. The desert talookas of Omerkote consist of a narrow strip of sand hills and waste lying north of the Runn of Kutch, and stretching about 130 miles from District Mahomed Khan's Tanda on the west, to the Jodhpore frontier on the east. The principal town is Omerkote, situated between the desert and the plains. It has long been the acknowledged capital of this part of the country, and with its mud fort was considered the key to the desert, commanding the high road between Marwar and Sindh.

Aden is under the jurisdiction of Bombay. Almost the most southerly point on the Arabian coast, it is situated in latitude 12° 47′ North, and longitude 45° 10′ East. It is a peninsula of about fifteen miles in circumference, of an irregular oval form, five miles in its greater and three in its lesser diameter, connected with the continent by a low narrow neck of land 1,350 yards in breadth, but which is in one place nearly covered by the sea at high spring tides.

Bengal.—One of the most important divisions of India, is the province of Bengal, which is ruled by a Lieutenant Governor. Bengal contains 11 Divisions including 56 Districts with Calcutta. The territory under the Lieutenant Governor of Bengal comprises Bengal proper, Behar, Orissa including the Tributary Mehals, Assam, Chota Nagpore, and the native states of Hill Tipperah and Cooch Behar. It extends from the meridian 82°

to 97° east of Greenwich, and lies within the parallels of 19° 40′ and 28° 10′ north latitude. From the Chumparun District as far eastward as the recently annexed Bootan Dooars, the Himalaya range, running through the independent states of Nepal, Sikkim, Tibet and Bootan, forms the northern boundary of the Province. Further east, along the northern frontier boundary of Assam, lies a tract inhabited by the Akha, Dufla, Meerie, Mishmee and other wild tribes; along the eastern frontier lies a part of the independent kingdom of Burma; below that the Munipore State; still lower are various hill tribes, such as the Naga, Looshai, Khyen, Meekir, &c.; and at the extreme south-east is British Burma. On the south of Chittagong, which is the south-eastern district of Bengal, is the Akyab District of Arakan. In the south-west, is Orissa bounded on the south by the Madras Presidency; and on the west by certain Tributary Estates, and by the Sumbulpore and Belaspore Districts of the Central Provinces. Further north, abutting on the western frontier of the Lieutenant-Governorship, are the native state of Rewah in the Indore Agency, and the districts of Mirzapore, Ghazeepore and Goruckpore of the North-Western Provinces.

The Bengal Lt. Governor's territory consists of Regulation and Non-Regulation provinces. The Regulation Provinces are divided into eight commissionerships, and the Non-Regulation Provinces into three. The monthly salary of a Commissioner in the Regulation Provinces is Rs. 2,919-10-8, and in the Non-Regulation Provinces Rs. 2,500, in addition in both cases, to a travelling allowance of Rs. 250.

Regulation.

Bhaugulpore Division.
Bhaugulpore.
Monghyr.
Purneah.

Patna Division.
Patna.
Gya.
Chumparun.
Sarun.
Shahabad.
Tirhoot.

Rajshahye Division.
Rajshahye.
Bogra.
Dinagepore.
Maldah.
Moorshedabad.
Pubna.
Rungpore.

Chittagong Division.
Chittagong.
Tipperah.
Noakhally.

Presidency Division.
Nuddea.
Jessore.
24-Pergunnahs.

Burdwan Division.
Burdwan.
Bancoorah.
Beerbhoom.
Hooghly.
Howrah.
Midnapore.

Dacca Division.
Dacca.
Backergunge.
Furreedpore.
Mymensing.
Sylhet.

Orissa Division.
Cuttack.
Pooree.
Balasore.

The Non-Regulation Districts are nineteen in number including the Native State of Cooch Behar. Each of these districts is under a Deputy Commissioner.

Non-Regulation.

Assam Division.
Kamroop.
Durrung.
Nowgong.
Naga Hills.
Seebsaugor.
Lukhimpore.
Khasia & Jynteah Hills.

Cooch Behar Division.
Julpigoree.
Gowalparah.
Garrow Hills.
Darjeeling.
Cooch Behar.

Chota Nagpore Division.
Hazareebaugh.
Lohardugga.
Maunbhoom.
Singbhoom.

Dacca Division.
Cachar.

Bhaugulpore Division.
Sonthal Pergunnahs.

Chittagong Division.
Chittagong Hill Tracts.

The state of *Cooch Behar*, is bounded on the north and west by the new district of Julpigoree; on the south by Rungpore; and on the east by the unsurveyed portion of the district as far as the Juldoka and Toorsa rivers. The extreme length east and west is forty miles, and the extreme breadth north and south is thirty-six miles, and the area is 386,123·40 acres, or 603·31 square miles. The forests described by Dr. Buchanan in 1800, have been entirely cleared and cultivated. The principal rivers are the Teesta Juldoka, and Toorsa.

The population of Bengal is probably near 60 millions.

The males comprise 51 per cent of the population, thus confirming the results of other Indian censuses as opposed to the experience of Europeans statistics. In Burdwan and Rajshahye the females actually exceed the males while in Cooch-Behar and Assam, there are only 77 and 81 females respectively to 100 males.

A special inquiry into the mortality caused by a famine in Orissa in 1866 was made by Deputy Collectors, with the aid of corrected returns made by the zemindars. The total population in 1865 was 3,015,826; of these 814,469 perished, and 115,028 either emigrated or disappeared, making a total loss of 929,497 and leaving 2,086,329 surviving. The per-centage of deaths to population is 27, which, added to 3·81, the percentage of emigrants or missing, gives a general percentage of 30·81 as loss of population during the famine.

The total population of the Municipal portion of Calcutta is 430,000. The floating population is assumed at about 50,000. The population of all Calcutta, including the densely inhabited suburbs, may fairly be taken to be half a million:—

	Males.	*Females.*	*Boys.*	*Girls.*	*Males to* 100 *Females.*
Europeans	6,820	2,545	907	952	220·96
Indo-Europeans	4,082	4,318	1,324	1,412	96·02
Greeks	17	7	2	4	172·72
Armenians	291	238	88	86	116·98
Asiatics	786	412	120	128	169·34
Jews	240	228	111	102	106·36
Parsees	73	15	6	4	415·79
Africans	39	9	2	3	......
Chinese	378	...	31	...	......
Mussulmans	65,812	28,738	9,667	8,842	200·85
Hindoos	1,19,539	78,901	21,010	19,740	142·48
Total ...	1,98,077	1,15,311	33,268	31,268	

North-Western Provinces.—These provinces are between L. 30° 7′ and 23° 51′ N. and L. 77° 4′ and 84° 40′ E. They are bounded on the north by the snowy range of the Kumaon, Himalaya, Oudh and the Nepalese Terai; on the south by the Saugor District of the Central Provinces, and the Native States of Bundlekund and Rewah; on the west by the river Tonse, until its junction with the Jumna, thence the Jumna till the 28th degree of Latitude; on the south-west by the Native States of Gwalior, Dholpore and Bhurtpore; and on the east and south-east by the Sarun, Shahabad, Behar and Palamow Districts of Lower Bengal. The North-Western Provinces contain 36 districts of which 35 are grouped in to 7 Commissionerships. The "non-regulation" portions are Kumaon and Gurhwal to the extreme north, Jhansie to the south-west, and Ajmere, which is separated from the western boundary by several intervening Native States. This last Division from its isolated position, requires distinct demarcation. It lies to the west, extending between L. 22° 16′, and 27° 45′ N. L. 71° 45′, and 77° 22′ E. It is bounded on the east by the Rajpoot States of Kishengurh and Jeypoor, on the north and west by Jodhpore, and on the south by the territory of Odeypoor. The Ajmere Division comprises Ajmere proper and Mairwarra. The Mairwarra tract belongs in unequal portions to the British Government, to Meywar or Odeypoor, and to Marwar or Jodhpore. The Meywar possessions consisting of three Pergunnahs, and the Marwar of two, were made over to the direct management of the British in 1822-23.

Benares is the most thickly peopled district. The density stands at 797—or, including the Military and Railway, 803—per square mile.

Looking at the 30 millions of people according to *creed* nearly 26 millions are hindoos and 4¼ mahomedans. Mahomedans form less than a seventh of the whole population, there being only 100 to every 609 hindoos. They are most numerous in Meerut and Rohilkund, where they comprise nearly a fifth of the population; more than half of the entire number of the mahomedans in the N. W. provinces—viz., 2,197,202 out of 4,243,207—reside in those northern districts.

Christian.		*Mahomedan.*	
		Not classified	2,207,576
European ...	21 831	Sheikhs ...	1,140.208
Mixed ...	3,968	Pathans ...	515,426
Native ...	4,702	Syuds ...	170,248
		Moguls ...	41,748
	30,501		4,105,206
		Hindoo.	
		Brahmins ...	3,451,692
Buddhist and Jain	75,629	Kshatryas ...	2,827,768
Parsee ...	120	Vaisyas ...	1,091,250
Sikh ...	1,425	Soodras ...	18,304,309
Other religious sects ...	195,977		25,675,017

The aborigines are returned as 313,215, and seem to be mixed up with the other sects.

The intense desire of all the hindus of India, on religious grounds, is for a son. The boy is reared with a care not shown to the girl. The girl is exposed to chances productive of greater female mortality, being married the moment she attains the age of puberty, bearing children at 11 and 12, subject to a sedentary and listless life in the zenana or one of hardship in the fields, and treated oppressively as a widow.

The Punjab contains 32 districts in 10 divisions. The feudatory states are estimated to contain five millions of people and an area of 197,339 square miles. The 32 non-feudatory districts have a population of 17,611,498 covering an area of 101,829 square miles, or 173 to the mile. Of the people 9,403,810 are agriculturists and 8,190,127 are not directly connected with the land. Leaving out Delhi and Hissar it may be said roughly that the population has increased, in thirteen years, nearly two millions, and in density 27 to the mile. The density of population is very slightly less than that of France. It is higher than the average of all non-feudatory India, which is 159, and falls below that of the North-West, Bengal and Madras alone. In the division of Jullundhur, with its good rainfall, there are 596 to the mile, omitting hilly Kangra. In the well-watered division of Umritsur the proportion stands at 513, in Umballa at 412, in Delhi at 342 and in Lahore at 210. In the Derajat frontier it falls to 77 and in desert Mooltan to 73. The country between the Beas and the Sutlej, the home of the Sikhs is thus the most populous. The rate of population follows the rainfall, and the number of mouths waits on the facilities for cultivation, which re-act on each other. There are 65 millions of acres in the Punjab. Delhi has now supplanted Umritsur as the most populous city. The population of the Panjab is as under:—

Christians.		*Hindoos...*	6,112,087
European...	17,574	Sikhs ...	1,144,390
Eurasian ...	3,379	Buddhists.	
Asiatic ...	2,601	and Jains.	36,190
Mahomedans	9,337,685	*Other Creeds*	959,292

The *Mahomedans* are thus classified:—

Miscellaneous...	5,070,231	Rajpoots.—	
Syuds ...	212,540	Bhattees ...	156,151
Moghuls ...	99,026	Chibs ...	9,909
Patans.—		Jungnas ...	21,303
Yusafzai ...	98,727	Tewanas ...	1,482
Khatak ...	72,723	Sirgals ...	47,197
Mohmund...	29,159	Ghebas ...	9,537
Bungush ...	31,774	Ranghars ...	121,109
Khalil ...	18,363	Miscellaneous	342,786
Daoodzai ...	16,843		
Mahomedzai	26,537	Jats ...	1,309,399
Kamulzai ...	845	Ghakkars ...	27,683

Suddozai	5,443	Dhunds	26,414
Wuzeeree	12,350	Satis	11,498
Lohanee	69,971	Kharals	28,815
Miscellaneous	327,165	Kurals	17,329
Belooch.—		Kathias	2,715
Loghari	15,809	Wuttus	18,217
Bozdar	1,642	Meos	130,385
Mazari	5,885	Minas	45
Lund	7,887	Gugars	424,095
Kosa	14,665	Parachas	12,784
Dushak	4,449	Khogas	54,969
Kasrani	4,958	Kashmeerees	230,850
Miscellaneous	179,747		

The *Hindoos* and *Sikhs* are thus classified :—

Miscellaneous	2,438,122	Labanahs	47,690
Brahmins	800,547	Jats	1,876,091
Khuttrees	384,829	Tagahs	9,212
Rajpoots.—		Gujars	112,319
Hill	213,163	Aheers	112,488
Plain	121,129	Kambohs	57,181
Bunyas	267,953	Kulals	26,405
Aroras	477,269	Kaneyts	86,269
Bhatias	26,543	Ghiraths	115,257
Kayaths	14,273	Changs	50,795
Sudhs	17,799		

The other creeds are as follows :-

Buddhists and Jains.—		Parsees	414
Bhotis	278	Sanseos	40,869
Bhabahs	14,091	Bavrias	19,141
Miscellaneous.	21,821.	Harnees	3,179

The Chumar race, who are included in Hindoos and Sikhs, numbered 634,406. Fifty-five per cent. of the whole population of the Punjab are connected with agriculture.

As the old masters of the country, the Sikhs assert their claim to proprietorship to an extent unknown among the other classes.

In certain Sikh villages of the Lahore district there were only 31 girls to 100 boys. The general result shown is, that among the leading Sikh clans of that district the proportion of females to males below the age of 12 is as 72·5 to 100·, while among the total Sikh population under the age of 12 it is as 77·7 to 100· and among the total population of all classes under that age as 85·9 to 100. That there should be only 47 females to 100 male children among the Sikhs of Soobraon, 15 to 100 in Bhusseen 55 to 100 in Sood Singh, or even 68 to 100 in Loodianee, must be the result of other than natural causes. The cause assigned for wishing to get rid of female children is the old one —the heavy expenses attending the marriage of daughters. That this presses very heavily upon respectable Sikhs of limited means there can be no doubt. A respectable Sikh, too proud to receive pecuniary consideration for his daughter's hand, is entangled in debt for life if he has three or four daughters to dispose of in marriage. As one after another is born he despairs of ever being able to bear the heavy burthen, and he hopes that the infants may die. Very moderate ill-treatment is sufficient to secure him his wish.

The British frontier line commences from the top of the Kaghan glen (a dependency of Huzara) near Chelas on the north-west corner of the maharajah of Jummoo's territory, and then passes round the north-west boundary of Huzara, on the east side the Indus to Torbeila ; then crossing that river, it winds round the north and north-west boundary of the Peshawur Valley to the Khyber Pass, then round the Afreedee Hills to Kohat ; then round the western boundary of the Kohat District, along the Meeranzye Valley and touching the confines of the Cabul dominions ; then round the Wuzeeree Hills to Bunnoo line and to the head of the Sulimani range ; and then, lastly, right down the base of the Sulimani range to its terminate on the upper confines of Sind and of the Khelat kingdom. The extent of this frontier is very vast, its length being full 800 miles. It is also as arduous in its nature as it is extensive. Along the outer side of this frontier line, and therefore beyond British jurisdiction, there dwell a series of independent tribes. On the inner side of this frontier, up to the right bank of the Indus, there also dwell various tribes, in many respects resembling the first-named tribes, but who are British subjects. These latter will be adverted to, though with less prominency than the former. The topographical position of each tribe, both without and within the frontier, may be enumerated in their local order as follows :—

Independent Tribes dwelling along the outer face of the north-west Punjab frontier and inhabiting hills, adjoining frontier of Huzara District.—Hussunzye.

Adjoining frontier of Peshawur district.—Judoon, Bunoorwall, Swatee, Raneezye, Osmankheylee, Upper Momund.

Adjoining frontier of Peshawur and Kohat districts.—Afreedi.

Adjoining frontier of Kohat district.—Buzotee, Sepah, Orukzye Zymoosht Affghans, Tooree.

Adjoining frontier of Kohat and Dehra Ishmal Khan districts.—Wuzeeree.

Adjoining frontier of Dehra Ishmael Khan district.—Sheoranee, Oshteranee, Kusranee, Bozdar.

Adjoining frontier of Dehra Ghazee Khan district.—Khutran, Kosah, Lugharee, Goorchan, Murree.—Boogtee.

British Tribes,—within the frontier, and British subjects, inhabiting partly hills and partly plains.

Huzara district.—Turnoulee, Gukkar, Doond and Suttee, Kaghan, Syud and other tribes of Huzara.

Peshawur district.—Eusufzye, Khaleel, Momund of the plains.

Peshawur and Kohat districts.—Khuttuk.

Kohat district.—Bungush.

Dehra Ishmael Khan district.—Bunnoochee, Murwutee, Butanee, Chiefs of Tank, Chiefs of Kolachee, Chiefs of Dehra Ishmael Khan, Nootkanee, Loond.

Dehra Ghazee Khan district.—Dreshuk, Muzaree.

Oudh lies between Nepal and the North-Western Provinces. It contains no mountains. In the Gondah district the boundary is on the ridge of the first range of low but abrupt hills; elsewhere it is in the plains. The Province consists of 12 districts in 4 divisions with an area of 24,060 square miles and a population of 11,232,368.

Plains.—The Oudh province is a part of the alluvial valley of the Ganges and some of its tributaries. The rivers descend from the hills first in a southerly direction and then turn eastwards. The belts of forest come down between them, and are situated on the higher land between the streams. The *Turrai* stretches all along the frontier of the province immediately below the forest, and is low and moist. It is more or less settled and cultivated, but the crops are poor and the country is unhealthy, at the first, and there are great difficulties in the way of bringing the soil under cultivation. Throughout this district there are large grassy plains where numerous herds of cattle are kept, and it is interspersed with old water-courses, the former beds of the river, now forming jheels and swarming with crocodiles.

In the Baraich and Kheree districts, where the *turrai* fades into the drier land, are two tracts, known as Dhowrera and Naupara, which have an excellent breed of draught cattle.

In the centre of this tract there are a few jheels, especially in the lower part of Seetapoor, in Lucknow, and Barabunkee, where the soil is more clayey and the crops more irrigated and finer, but its general character is as described.

Forests.—The Oudh forests are in three divisions. The 1st, or Khairigarh Division, lies between the rivers Soheli and Mohana.

The trees which are reserved in the Oudh forests are Shorea robusta. Dalbergia sissoo. Cedrela toona. Ebony, Diospyros melanoxylon. Conocarpus latifolia. Terminalia tomentosa, Acacia catechu. Nauclea cordifolia. Of these shorea, cedrela, ebony, conocarpus and terminalia are found in the higher forest, called Bhabar or, locally, Domar. The other trees are found on the lower ground or *turrai*. There is a very small tract under *sissu* reserved for the use of the gun carriage agency at Futtehgurh.

Rivers.—The principal rivers of Oudh are the Rapti, the Babai, the Girwa, the Kauriali, the Mohana, the Soheli, the Sarda, the Ul, the Katna, the Gumti, the Sai and the Ganges. Of these all, except the Ul,' Katna, Gumti and Sai, are hill streams descending from the Himalaya, and subject to the sudden freshes which characterize the hill streams. The *Rapti* is a rapid river navigable for boats up to Bhinga. It is used for rafting timber in the rains. It is a second class river, and swarms with crocodiles. The *Babai* is rapid and shallow in its upper course, and useless for navigation and for rafting. The *Girwa* where it enters British territory, is a mountain stream with a great fall, rushing in rapids and pools over a stony and sandy bed. It is useless for navigation. It is a branch of the Kauriali, from which it issues by percolation, and to which it is united lower down. The *Kauriali*, is the largest of the affluents of the Ganges. Its discharge is 13,082 cubic feet per second. It is is more than twice the size of the Ganges where it leaves the hills, and is navigable for boats throughout the year within British territory. This is the river which is called Karnali in the hills: Kauriali, after it enters the plains to its confluence with the Sarju a little below Bhartapur; Gogra thence to Fyzabad; Sarju, about Adjudia; and Dewa or Gogra again below this down to its confluence with the Ganges at Revelganj near Chupra. The *Mohana* is the boundary of the British territory from Gwari Ghat to its confluence with the Kauriali, rather more than half its course in the plains. It is a shallow and rapid stream, not navigable, but timber is floated down it in the rains to the Kauriali. This river swarms with crocodiles, both the magar or broad-nosed, and the gurial or long-nosed species.

The *Sarda* is a river about the size of the Ganges where it leaves the hills; nine miles below, its discharge is 6,416 cubic feet per second. It is the boundary between British territory and Nepal out of Oudh. It has lost the character of a hill stream and flows in a sandy bed.

The *Gumti* is a river rising in some rice fields, from which its head waters appear to trickle. Its water is sweet and its banks are cultivated throughout the province. It is navigable throughout the greater part of its course in Oudh; but it is extremely tortuous, and the navigation is impeded at Sultanpoor by rocks.

Jheels and Marshes. There are no lakes, though some of the *Jheels* are very extensive sheets of water. The country between the Gumti and the Ganges is well supplied with them. They lie in two parallel elevated hollows, on either side of the Sai, and about midway between that river and the Gumti and Ganges respectively. They are drained by lateral *nale*, which fall mainly into the Sai, and which cause the occasional floods in that river after heavy rain. They are a striking feature of the country, stretching in a continuous series, on both sides of the Sai, from the Shahjehanpoor boundary to that of Jounpoor and Allahabad, and often connected when the rain has been heavy. The Oudh jheels are covered with all kinds of wild fowl and some of them are fairly stocked with snipe. In the *turrai* marshes are numerous. They are covered with long grasses and are the favourite lair of tigers after the hot weather has set in.

In density of population Oudh stands at the head of all the provinces of India. It contains 474 to the square mile, or 514 if the more barren part of its area be left out. The proportion of mahomedans to hindoos is 10·7 per cent. to 89·3. The mahomedans are the most numerous and powerful in the central districts of Lucknow and Barabunkee. Their settlements there were mostly effected in the 13th, 14th and 15th centuries, and they have generally continued to hold the lands they first acquired. Of the 55 talukdars of these two districts, 34 are mahomedans; 23 belong to Barabunkee and 11 to Lucknow. The first mahomedan invasion of this province took place above 800 years ago, when Sayad Salar Masa'ud, a relative of the great Mahmud of Ghuzni, fought his way into Oudh at the head of a large army. The history of his invasion, his first success and his final defeat and death at Bariach are told in the *Mirat-Masa'udi.* Of the whole native population of 11,198,095, so many as 6,542,870, or 58·4 per cent., are agricultural and 4,655,225, or 41·6 per cent., non-agricultural.

Native christians and Eurasians seem generally to have returned themselves as Europeans. The higher castes of mahomedans are thus classified :—

Sayed	51,679	Pathan, Khandhan, Rohilla	191 880
Shaikh, Milki, Malik, Kuraishi	166,561	Mogul	26,672

The following are mahomedan converts from higher hindoo castes :—

Bhalesultan	1,699	Rajpoot	6,775
Khanzada	2,093	Mewatee	2,140

The higher castes of hindoos are thus given :—

Brahmin	1,397,808	Kashmiri	219
Bengali	128	Marwari	74
Jat	10,845	Punjabi	93
Jain	56	Sikh	4,752
Kshatriya	662,946	Saraok	4
Kyath	148,923	Vaishya	241,460
Khatri	13,374		

Of the lower hindoo castes the most numerous are these :—

Aheer	1,167,499	Kahar	288,263
Bhunya	143,862	Koree	360,178
Bhat	63,203	Kurmee	764,422
Barheire	134,844	Lohar	122,573
Chumar	1,030,467	Lodha	350,907
Dhobee	161,004	Mulee	107,732
Parsee	649,741	Murao	406,868
Telee	213,999	Nao	220,759

Eleven aboriginal castes are entered varying from 14,925 Dome and 13,093 Nat to 30 Paharee. Thirty orders of religious mendicants are given. Of these the most numerous are the Goshain 40,999; Jogi 8,642; Bairagi 6,230 and Sadhu 9,923.

Kheree is the extreme district of Oudh at the foot of the hills on the Nepaul border. The Tharoo or inhabitants of the forests are a wild, uncultivated, and extremely superstitious race, and assign to themselves a mythological beginning. Their villages are divided into certain circuits, marked off by the Bhurra of Bheonhar, a self-created superior, whom these people believe to be inspired by Bhowanee, and to whom they submit in every occurrence of their domestic lives. A Bhurra is indispensable at every birth, marriage and death, directs all religious ceremonies, and has supreme influence in the circuit to which he belongs. He has, however, to prove his inspiration before the assembled villagers by one of two methods, either by drawing seven times the flame from a lighted to an unlighted wick without bringing the two in contact, or by calling upon Bhowanee, who is supposed to descend upon him, when the Bhurra begins to dance and jump about violently, and convinces the assembled crowds of his superhuman powers by his movements and gesticulations. The bodies of those that die in advanced years are burned, but those of the young are buried; their widows are allowed to re-remarry, but a man may not marry the widow of his younger brother.

The Central Provinces, under a Chief Commissioner, extend from the 18th to the 24th degree of North Latitude, and from the 76th to the 86th parallel of East Longitude. They are bounded on the north by the Independent States of Bundelkund, of which the principal are Tehree and Punnah; on the west and north-west by the British district of Chundeyree, Lullutpore (belonging to the North-Western Provinces), by the Bhopal State, by Sindia's dominions, by Berar and by the Nizam's dominions; on the south and south-east by the Nizam's dominions, and by the Madras district of Rajahmundry; on the east by the Jeypore State under Madras jurisdiction, by those portions of Bengal known as the Tributary Mahals, by the North-West Frontier Agency and by the Rewa State. The survey of the entire tract thus bounded has not been completed.

The provinces contain 18 districts in 4 divisions; and a population of 9,104,511.

Hindoos....	6,864,770	Gond and other hill or aboriginal tribes	1,995,663
Mahomedans	237,962		

Besides the above, there were 6,026 Europeans and Eurasians and 90 Parsees in the whole of the Central Provinces.

Rajpoots, numbering	2,41,748	Chumar numbering	5,18,389
Koonbee „	6,76,270	Koree „	1,39,776
Teylee „	4,90,606	Power „	91,586
Lodhee „	2,34,767	Ooriya „	2,145

British Burmah.—This Province, under a Chief Commissioner, has an area of 93,879 square miles and a population of 2,395,988 in three Divisions containing 13 districts. It extends along the eastern shore of the Bay of Bengal from the Chittagong Division of Bengal to the kingdom of Siam in 10° N. Lat. British Burmah is geographically divided into four portions: (*a.*) Arakan stretching from the Naf-Estuary, which separates the Province from Chittagong, to Cape Negrais, and consisting of a comparatively narrow strip of country between the sea and a high mountain chain: (*b.*) the valley of the Irawady which, divided from the Sittoung valley by the Pegu Yoma range, unites with it in its southern portion; to the eastward is the chain of hills which forms the watershed between the Sittoung and the Salween rivers, and on the west the Anoukpek-toung-myeng, literally "the high western range of mountains," sometimes called the Arakan Yoma range: (*c.*) the Valley of the Salween: and (*d.*) Tenasserim, a narrow strip, like Arakan, reaching down to the Pakchan stream in 10° N. Lat. and separated from Siam by a lofty chain of hills running from north to south nearly parallel to the coast, at a distance of from 30 to 40 miles inland, but approaching nearer to the sea at its southern extremity.

Arakan, originally a powerful kingdom conquered by the Burmese, was taken from them by the British after the first Burmese war in 1825. It has an area of 18,529 square miles, and lies between the Nâf Estuary and Cape Negrais. It is bounded on the south and west by the Sea, and on the north and east by the high chain of mountains which, forming the eastern boundary of Bengal, trends from the south-eastern extremity of Sylhet and Cachar in a south-westerly direction as far as the Fenny River, and from about the 23rd parallel of North Latitude turns south-east for 360 geographical miles, when turning again to the westward of south it gradually diminishes both in breadth and elevation till it ends 15 or 16 miles south-east of the rocky promontory of Cape Negrais at Pagoda point, called by the Burmese *Hmau-deng.* This chain, though of considerable height to the north, (the Blue Mountain is supposed to be 8,000 feet above the sea level) diminishes in altitude as it reaches Arakan, and none of the passes across it in that portion of its length is more than 4,000 feet above the sea; the Aeng pass into the valley of the Irawady is much less. From Combermere Bay, 25 miles south of Akyab, the coast is rugged and rocky, offering few harbours for ships. Kyouk-phyoo harbour inside the island of Ramree is safe and easy of approach, and at the mouth of the Gwa river further south there is a fairly sheltered roadstead and an inner harbour easy of access through a channel with two fathoms of water at low tide. The rise and fall of the tide is 7 feet only. The coast is studded with fertile islands the largest of which are Cheduba and Ramree. Owing to the nearness of the range which bounds Arakan, there are no large rivers: the principal ones are the Nâf estuary on the extreme west; the Mroo River, an arm of the sea about 40 miles to the eastward and from 3 to 4 miles broad at its mouth and extending more than 50 miles inland; and the Koladan or Arakan River rising somewhere near the Blue Mountain in about 23° N. and which is navigable for 50 odd miles by vessels of 300 or 400 tons burden. On the right bank close to its mouth, is situated Akyab, the head quarter Town of the Akyab District and of the Arakan Division, the approach to which, however is dangerous and difficult. The whole of the rivers in the Akyab and Ramree districts anastomose by channels which, though dry in some instances during ebb tides, are all navigable for boats during the flood; the whole coast line is, in fact, a labyrinth of creeks and tidal nullahs which rise at the foot of the hills and receive the contribution of numerous small streams.

Ramree.—Many wells of petroleum or earth-oil are met with. They are generally situated near the bases of low hills, and are of various depths. The deepest is said to be about fifty feet, having about six feet diameter at the mouth. The sides of this well have been ingeniously boarded by the natives, having diagonal cross bars, which not only secure the structure but serve as a ladder. There is no sort of machinery used to get up the oil. A young lad is first sent down, a man on the cross bars lets down to him earthen pots in succession, into which the contents of the well are filled, and then the pot is drawn up. The whole of the contents of the pot, as drawn up, is not oil, which is of a light bluish colour and floats upon water, there is sediment that might have been scooped up from the bottom. This takes place twice a day, and the yield is from four to six gallons per day. The oil sells in the bazaar at a Rupee per gallon. The deepest of the wells is the island of Ramree is situated in the Laytoung Circle, and is said to have been productive for a great number of years. Natives have been known to dig wells of short depths for temporary purposes, after which the wells are abandoned and soon choke up from the falling in of the earth. There is a fish found in these waters called "Luckwa," the oil extracted from the liver of which is said to have the same properties as cod liver oil. The island lying about two and half miles to the westward of old Kyouk-phyoo, is called on old marine charts "Saddle Island" from its shape. When Kyouk-pyoo was a military station, some of the officers (it is said) let looee thereon a pair of goats; these have increased to such an extent that the island now abounds with wild goats and hence it is now called by the natives "Chy-Kysor," or Goat Island.

The *Valley of the Irrawaddy* at its lower end unites with the valley of the Sitang to form an extensive plain stretching from Cape Negrais on the west to Martaban on the east. The water-shed between these two streams is the Pegu Yoma range which, running north and south, terminates in low hills at Rangoon.

The Irawady Valley is about 80 miles broad at the frontier line, counting from chain to chain. The main rivers are the Irawady, the Hlaing or Rangoon, the Pegu, the Sitang and the Beeling. The *Irrawaddy*, rising in about latitude 28° N. and longitude 97° 30′ E., flows for 660 miles before reaching the British possessions, and thence its waters roll on for 240 miles to the sea in a S. S. W. direction. As it nears the coast it divides, converting the lower portion of the valley into a network of tidal creeks. A little above Henzadah, about 90 miles inland, it sends off its first branch to the westward which, flowing past Bassein, receives the waters of the Pammawaddee and of the Penglaygalay, and, bifurcating, enters the Bay of Bengal by two main mouths, the Bassein and the Thekkay-thoung Rivers. The waters of the Irrawaddy commence to rise in March and continue to rise till September when, or in October, they commence to fall again, having risen from 3[illegible] to 40 feet. Just below Rangoon it is joined by the Pegu and Poozoondoung rivers flowing from the east and north-east. The *Pegu* and the *Poozoondoung Rivers* rise close together in the Yoma range about 58 miles above the town of Pegu, the capital of the ancient Taline kingdom conquered by the Burmese under Alom-pra and which gives its name to all this portion of the country. The *Sitang River* rises far north of British territory which it enters just above Toungoo. Here it is narrow and navigable with difficulty for large boats during the dry season. Below Shwe-gyeen, where it receives the waters of the Shwé-gyeen River from the east, it gradually and slowly widens till at Sittoung it is half a mile broad. Thence it curves backward and at last flows into the Gulf of Martaban through a funnel-shaped channel widening so rapidly that it is impossible to tell where the river ends and the gulf begins. Owing to the meeting in this Gulf of the great tidal wave of the Indian ocean, arriving from the south-west, and of other portions which come along the Tenasserim coast from the south-east, a bore with a curling crest nine feet high sweeps up the Sittoung River, its effect, hough broken by the serpentine curve below Sittoung, being felt at Shwé-gyeen.

The Thoo lake is in the Myanoung district on the west bank of the Irrawaddy between that river and the Arakan Hills, which is 8 or 9 miles round and 2½ across; the Labagyin is in a large low tract of gronnd on the opposite bank of the Irrawaddy; the Kandaugyee, or "large Royal lake" near Rangoon, about 3 miles round; and the Lake of clear water in he Bassein district, is about 5 miles in circumference with a pretty uniform breadth of 280 300 yards and a depth of from 20 to 45 in the centre.

The *Valley of the Salween* is British territory only in its lower portion. The right bank of that river is a wilderness of mountains drained by various streams the most important of which is the Yonzaleen; but lower down, nd especially below the Thoungyen River on he east bank, there are large alluvial plains hich are drained by the Gyne and the Attaran Rivers. The Salween though a large river is ot navigable owing to its rapids. The *Gyne*, which flows in a somewhat similar direction passes through a more open country, and there re numerous villages on its banks: it is navigable for 180 miles for small boats.

Tenasserim is that tract of country lying between 17° and 18° N. latitude along the Eastern side of the Bay of Bengal, and between it and a high chain of Hills about 40 miles inland, and includes the Mergui Archipelago, that is the chain of islands along the coast 15 or 20 miles distant from it. The surface of the country is mountainous, thinly populated and much intersected by streams. Between the sea and the boundary range is another lower one, separated from the higher by the River Tenasserim. The grand range is in some places 5,000 feet high: its breadth at Martaban has never been ascertained, but further south, in the latitude of Tavoy, it appears to be 40 miles across whence it gradually narrows to 10 miles, near Mergui. The whole range is covered with pathless jungle, and may be said without exaggeration to be without a human habitation of any kind. The coast is very irregular, and low for some miles inland consisting of uncultivated mangrove islands. The *Tenasserim*, which rises in about 16° N. latitude, flows through a valley scarcely broader than its bed to the southward, the easiest navigable for large ships; although in 1825 the cruiser "Thetis" sailed up the southern entrance as far as old Tenasserim. The river is navigable for boats for 100 miles.

Of the total area of the Province or 93,879 square miles, 18,528 are in Arakan, 36,454 in Pegu which includes the valley of the Irrawaddy and the whole of the valley of the Sitang on the right bank of that river; and 38,897 in the Tenasserim Division which includes the left bank of the Sittoung, the southern portion of the left bank of the Salween, *i. e.*, the country to the eastward drained by the Gyne and the Attaran, and the Eastern Coast of the Bay of Bengal.

The soil throughout Arakan is alluvial, mixed in places with sand, the islands are of volcanic formation and though rocky are fertile iron and limestone, are found in small quantities—the former in the island of Ramree. The soil of the Northern portion of Tenasserim is alluvial, but not much cultivated except near the Gyne. Coal "well adapted for steamers," has been discovered in five localities. Excellent tin is found and copper ores, gold in small quantities, and ores of manganese and iron in abundance.

The rainfall varies considerably from 253·15 inches at Sandoway to 48·50 inches at Prome.

Berar, or the Hyderabad Assigned Districts, is permanently assigned by the Nizam to the Government of India to meet treaty obligations, subject to the condition that the surplus revenue shall be paid to Hyderabad. The province is administered by two Commissioners under the Resident of Hyderabad. As rearranged in 1868 it contains 6 districts in 2 divisions of which the following are the statistics for 1868-9 :—

The census returned the population at 2,231,565 dwelling in 495,760 houses comprising 5,694 towns and villages.

Of the towns, Ellichpoor is the largest, having a population of 27,782 souls; Oomrawuttee comes next, having 23,410, then Akolah having 14,606, and Akote (in the Akolah district) having 14,006. The proportion between the sexes in all ages was 48·3 females to 51·7 males.

The principal divisions of the people as to creed and caste were:

Christians ...	903	Sudra	1,441,271
Jews...	16	Out-castes ...	301,379
Parsees... ...	75	Aborigines ...	163,059
Mahomedans. ..	154,951	Hindoo Sects ...	55,219
Brahmins ...	49,843		
Kshatriya ...	36,831	Total...	2,231,565
Vaishya... ...	28,018		

The out-castes are thus detailed :—

Mhâr.	
Somavanshi, Adhucy Telung, Madrasi, Ladoom, Baider, Awdhatan, Hohar, Bhilung, Perdeshi, Bhat, Hajam, Vatie, Loadey, Malvi, Gopal, Lawyaney, Mhar, Labai, Dongra	227,824
Dhor..	2,948
Khakrob (Bungee)	543
Kateek	4,069
Dasree	243
Chamar.	
Varadey, Perleshi, Marahey, Dakhnee Pudum, Holar, Hindustani, Chumbar, Mochee...	19,172
Mang.	
Mang, Marahey, Vereday, Rant, Telung, Dakhnee, Ghutoley, Saradkar, Baonsee, Teeholey, Gavadey, Saveley, Devadey, Lakhari, Samus...	35,453
Kalanki... ...	46
Pirastee... ...	8
Baharupi... ..	232
Pasee...	20
Kaikadi	3,201
Aravie... ...	15
Berad... ...	11
Holar... ...	274
Julnee... ...	2
Monghey	332
Madgi... ...	1,718
Total...	296,111
Wandering tribe (Paradhi)	5,268
	301,379

All the Bheels, who live along the skirts of the Sautpooras, appear to have embraced mahomedism, though they do not intermarry with the purer mahomedans, and the list shows that there are 127 converts who were not born in that faith.

The *Kshatriya* class contains mostly a set of very dubious pretenders to the honor of Rajpoot descent. Mahrattas of no particular family usually call themselves Thakoors—even a Koonbee will occasionally try to elevate himself thereby, while the Purbho, Kayuth and other castes of mixed origin and good social status are constantly invading the Kshatriya military order. The distinction is also claimed by the rajas of the Sautpoora hills, who assert that they are rajpoots depressed by the necessities of mountain life, whereas they are Gond or Korkoo elevated by generations of highland chieftainship.

Under the heading Vaisya are placed all the commercial classes of hindus, the north-country Marwaree and Augurwalla, with those who are known by the general term Bunya and a few castes like the *Komtee* from the south, or the *Lar*, who do not seem to be well known out of Berar.

The Sudras in Berar as in Mysore, all eat together, although they do not intermarry. The *Koonbee* and *Malee* eat flesh, drink liquor moderately, and their widows may always remarry if they choose, excepting the widows of Desmookhs, who ape high-caste prejudices. The *Koshtee* are weaving castes. The

Bunjara are comparatively numerous in Berar, their occupation as carriers and travelling commissariat is rapidly going, and during their transitional stage they give a good deal of trouble to the Police. The *Dhungur* are sheep farmers, and *Hutker* is the name of one of their clans, which still holds much land on the border of the Nizam's territory, and was not long ago notorious for pugnacity and rebellion. The *Bhoee* has recently been supposed to belong to a widely spread primitive tribe ; the *Garpugaree*, live by the profession, of conjuring away hailstorms. Any one who has watched the medicine man at work has witnessed a relic of pure Fetichism, possibly handed down from the præ-Aryan races and their earliest liturgies. The *Vidoor* and *Krishnapukshee* are the same ; they are decendants of brahmins by women of inferior caste, and *Krishnapukshee* is only an astronomical metaphor for describing a half-breed, the term meaning literally "dark fortnight" and referring to the half darkened orb of the moon.

All the Sudras of this part of India are of Turanian origin. The *Mhar* have been taken to be the same with the *Dher*, a very useful and active tribe. The *Mang* appear to be the lowest in the social scale of all. The paucity of the *Khakrob* or *Bhangee*, who are so numerous in Northern India, is a serious sanitary difficulty. The *Kaikaree* are a tribe formerly well known for their thieving habits.

Of the *aborigines* the *Gond*, *Korkoo*, and Bheel are the only completely preserved specimens of tribes. The two first retain their languages, while the Bheel tongue seems to have become extinct very recently, in Berar, its disuse being probably expedited by their general conversion to mahomedanism. The *Ramosee* is said by Grant Duff to be of a different tribe from the Bheel. The original *Purdhan* among the Gond answered to the *Bhat* among the hindus, but many seem to have settled in the plains as a separate class of Gond.

Mysore is to be administered by a Chief Commissioner and British officers until the maharajah, is declared fit to superintend the administration and the revenues are spent upon the province. Mysore is situated between L. 11° 36′ and 15° 0′ N., and L. 74° 42′ and 78° 37′ E. Its extreme breadth from E. to W. is 230 miles, and length from N. to S. is 190 miles. Its area is 28,449 sq. m. and its population 4,006,340, of whom 3,793,973 are hindoos. It is bounded on the north by the Bombay district of Dharwar and the Madras District of Bellary, on the south by the Madras districts of Salem and Coimbatore, on the east by those of Cuddapah, and North Arcot, also of Madras ; on the west by Coorg and the Western Ghats, which shut out Mysore from Malabar and Canara on the west coast. The Eastern Ghats form the frontier by which it is separated from the Carnatic. They constitute the exterior of the east ranges of hills, which run along the whole length of the Peninsula from Cape Comorin, stretching up to the continent of Asia. In many parts the ascent into Mysore is high and difficult, while in others it is more gentle. The country rises gradually from these ghats towards Bangalore, which is 3,031 feet above the sea. The descent from Bangalore on all sides is perceptible though not rapid. On the north-west, after passing the Chituldroog range of hills, there is a gradual fall through the broad valley which leads to the river Tumbudra, near which is the station of Hurryhur, probably the lowest point in Mysore, its altitude above the sea being only 1,800 feet. To the south-west and west, by Seringapatam and Hassan, there is perhaps a more marked descent, until it is abruptly terminated by the Western Ghats, comprising in this direction the Nilgiri and Coorg hills, and further north, the Manjarabad and Nagar ranges. A marked feature of the country is the number of isolated hills called Droog, on the most inaccessible of which the former poligars or petty chiefs built forts, afterwards in many instances strengthened and improved by Hyder and Tipu, and still in good preservation, but now without guns. The principal forests are found clothing the sides of the western mountains. They abound in teak, blackwood and other valuable kinds of timber. There are no forests in the Eastern Ghats. Sandalwood grows in the country bordering the hills.

The *Tunga* and *Bhudra* rivers rise in the north-west of Mysore, and uniting, form the Tumbudra, which flows northwards and eastwards till it joins the Kristna below Kurnool. The banks of the Tumbudra are too high for irrigation purposes. The *Kavari* rises in Coorg and passes through and out of Mysore in a south-easterly direction, after receiving the Hemawati, the Lokani, the Shimsha, and the Arkavati from the north, and the Lachmantirth and the Kabbani from the south. The Kavari and its tributaries supply numerous irrigation channels and tanks. The *Pennar*, the *Palar* and *Penar* rise in the eastern part of Mysore, in their short course through which, their waters are detained and converted into chains of tanks. None of these rivers are suitable for navigation. There are no natural lakes in Mysore ; but there are nearly 20,000 artificial reservoirs, some of which are of considerable magnitude, and others of greater size are planned.

The prevailing rock, is a kind of sienite, composed of quartz, felspar, hornblende and mica. Chlorite slate is found near Sera, and drawing slate in the neighbourhood of Chituldroog. Of minerals there are Clay Ironstone, School in Quartz, Mica Slate, Magnetic Ironstone, Potstone, Actinolite, Ligniform Asbestos, Brown Spar, Common Salt, Carbonate of Soda. Gold is occasionally found near Betmangala, by washing the alluvial soil; but in too small quantities to repay labour.

The chief products are:—Paddy and ragi—the principal food of the people; bullar—a kind of small bean; gram; wheat; millet; oil seeds; sugar-cane; cotton; hemp; tobacco; mulberry; coffee; cocoanuts; betelnuts and potatoes for export.

Climate.

Places at which observations taken.	Rainfall in inches.				Average Temperature in the Shade.								
					May.			July.			December.		
	January to May.	June to Sept.	October to December.	Total.	Sunrise.	2. P. M.	Sunset.	Sunrise.	2. P. M.	Sunset.	Sunrise.	2. P. M.	Sunset.
Bangalore District	5·59	21·22	5·65	32 46	...	...	...	...	...	...	...	...	...
Kolar do.	6·11	25·86	15 68	47·65	86	89	...	79	80	...	72	73	...
Toomkoor do.	5·33	21·96	5·45	32·69	81	82	84	74	77	76	71	87	73
Mysore do.	7·84	18·68	2·70	29·22	75	...	86	70	...	76	65	...	78
Hassan do.	8·95	15 85	5·82	30·62	75	...	80	70	73	71	68	73	72
Shimoga do.	6 94	21·79	5·35	34 8	78	96	75	71	86	73	57	87	75
Kadoor do.	5·22¾	21·86	3·15½	30·24¼	77	...	83	68	70	...	...		...
Chituldroog do.	2·60	15·7	3·60	21·27	...	...	...	71	79	75	71	78	74

The brahmins in Mysore are of the three great classes, sri vaishnava, vaishnava, and smartha. The first named are, as a class, ambitious, and exhibit considerable force of character. The mahomedans are of the shaik and syed tribes. With but few exceptions they show little aptitude for the more responsible posts under Government, although every encouragement has been offered to them. The Lingayets are strict Shevaits, and carry the linga tied to their necks. They are numerous, and are chiefly grain merchants, very thrifty, industrious and abstemious. The Mysore ryots or cultivators are sudras. They are also called "Wakligar," and "Kunab." They are careful farmers, contented, peaceable and healthy. The other castes are Komati; Bedar, the followers of the old Poligars, fond of hunting and athletics; Lambani; Wadder and Kurumbar. The wandering tribes are addicted to the commission of dacoities, robberies and other lawless acts. The Lambani are grain carriers.

Coorg.—Coorg (Kodagu) is a British district administered by a Superintendent under the Chief Commissioner of Mysore. It is situated in L. 12° 26′ 21″, and L 74° 30′ 46″. It is bounded on the north by the Hemavati river; on the south by the Tambacheri pass; on the west by South Canara and North Malabar; and on the east by the Mysore country. Coorg was surveyed by Lieutenant Connor of the Royal Engineers in 1817, who has written a very interesting memoir of the survey. The coffee estates are now being surveyed. Of 2,400 square miles 547 are cultivated, 1,705 culturable and 148 unculturable. There are 168 miles of road. The rainfall varied in 1868-69 from 68·09 inches at Kembu Kolli in the south east to 95·25 at Mercara, the capital. The maximum temperature at 3 P M. in May was 83° and the mean 72°. The minimum in December was 53 at 6 P. M. and the mean 65. The aspect of Coorg, presents an entire forest, the long and narrow cultivated valleys enclosed within it serve but to render those vast woods more striking The whole of the eastern boundary presents a remarkable line of demarcation exhibiting an almost uninterrupted and impervious wood from the Burmagerry Hills, till reaching the Cavery; this space is wholly uninhabited. Advancing westward the woods decrease in density as the country improves in cultivation, and become gradually thinner till reaching the Western Ghauts, the immediate summits of which, partially bare of wood, are clothed with a luxuriant herbage. The Mallimbi Peak lying on the confines of Yelusavira and Yeddavanad is an exact cone, Coorg Proper gives birth to the *Cavery* and two principal streams tributaries to it, the *Soornawutty* on the north and *Latchmunteerth* on the south. The chief products of both the upper and lower country are cardamums, coffee and rice; these are the principal exports. Coorg, with an area of 2,400 square miles and a population of 115,357, has 35 judicial and revenue sub-divisions, and 507 villages. There are 23 magistrates of all sorts. The total cost of local officials and police of all kinds was Rs. 1,14,578 in 1868-69. In that year the land revenue was Rs. 1,68,108 and the gross revenue Rs. 5,08,143. The chief towns and their population are these:—

Mahadeopete	3,825	Fraserpete	1,109
Virajapete	2,889	Sanivarsante	498
Somavarpete	905	Kodlipete	690

The prevailing languages are Coorg, Canarese, Malayalum, Tamil, Tulu, Hindustani and English. The population is 115,357.

British India.—In the ten Provinces of non-feudatory India, with feudatory India, the latest returns, show a total area of 1,577,698 square miles and a population of 212½ millions if the Parliamentary returns for the 153 Feudatory States be assumed to be correct.

	The Ten Provinces.	When formed.	*Government.*	*Capital.*	*Square Miles.*	*Districts or Counties & States.*	*Population.*	*Population per square mile.*
	British India and Feudatories.	1773 1784 1858 1861	*Her Majesty's Viceroy and Governor General of India in Council.*	*Calcutta* ...	Grand Total 1,577,698	Grand Total 374	Grand Total 212,671,621	Grand Total 135.
1	MADRAS ...	1639	Governor in Council, with a Legislature ...	Madras ...	140,726	20	26,539,052	188
2	BOMBAY AND SINDH ...	1662	Do.	Bombay	131,298	19	13,038,609	99
3	BENGAL OR LOWER PROVINCES. ...	1853	Lieutenant Governor with a Legislature ...	Calcutta ...	246,499	56	48,358,134	198
4	NORTH-WESTERN PROVINCES. ..	1835	Lieut.-Governor ...	Allahabad.	83,687	36	30,086,098	361
5	PUNJAB	1849 1858	Do.	Lahore ..	101,829	32	17,611,498	173
6	OUDH	1856	ChiefCommissioner	Lucknow...	24,060	12	11,232,368	474
7	CENTRAL PROVINCES .	1861	Do.	Nagpore....	111,121	18	9,068,103	79
8	BRITISH BURMAH ..	1862	Do.	Rangoon ...	93,879	13	2,395,988	26
9	BERAR	1853	Two Commissioners under Resident of Hyderabad ...	Oomrawuttee and Akolah	16,960	6	2,220,074	131
10	MYSORE ..	1832	Chief Commissioner ...	Bangalore .	28,449	8	4,006,340	145
	COORG ...	1834		Mercara ...	2,400	1	115,357	49
		Total Non-Feudatory	... ...		980,908	221	164,671,621	170
	153 *Feudatory States.*	Total Feudatory	... ...		596,790	153	48,000,000	80

Arranged according to population the ten Provinces stand in the following order:—

	Province.	Census.	Population.	Districts and States.	Square Miles.
1	Bengal	*Estimate.*	48,358,134	56	246,499
2	North-Western Provinces ...	1865	30,086,098	36	83,687
3	Madras	1867	26,539,052	20	140,726
4	Punjab	1868	17,611,498	32	101,829
5	Bombay and Sindh	*Estimate.*	13,038,609	19	131,298
6	Oudh	1869	11,232,368	12	24,060
7	Central Provinces	1866	9,068.103	18	111,121
8	Mysore	*Estimate.*	4,006,340	8	28,449
9	British Burmah	1869	2,395,988	13	93,879
10	Berar	1867	2,220,074	6	16,960
	Coorg	1869	115,357	1	2,400
	Non-Feudatory India	...	164,671,621	221	980,908
	Feudatory India	*Estimate.*	48,000,000	153	596,790
	Total	...	212,671,621	374	1,577,698

Portions of Oudh and the N. W. Provinces and Bengal have a population approaching 800 a mile, as in Lucknow, Benares and Hooghly.

The proportion of hindoos and mahomedans, is as under:

	Mahomedans.	Hindoos & Budhists.	Percentage.	
			M.	H.
Punjab	9,337,685	7,292,667	53·02	41·28
N. W. Provinces..	4,243,207	25,671 819	14·	84·
Madras	1,502,134	24,172,822	5·8	94·1
Oudh	1,195,817	10,002,731	10·7	88·
Central Provinces.	237,962	6,930,163	2·6	95·
Mysore	182,654	3,793,793	4·5	95·4
Berar	154,951	1,856,963	6·9	90·
British Burmah ...	40,952	1,603,523	2·4	97·4

The number of aborigines and outcastes is as follows:—

Madras ...	650,000	Berar ...	464,438
C. Provinces	1,995,663	Coorg	3,904
N. W. Provinces	313,215	Bengal (say)	5,000,000
Punjab	972,833	Bombay (say) ...	3,000,000
Oudh ...	90,490		
B. Burmah ...	721,934		12,213,222
Mysore ...	745		

Europeans and their descendants.

	Europeans and Americans.	*Mixed.*
Army officers and men...	58,000	......
Municipal Calcutta ...	12,000	11,036
Suburbs " ...	8,000	1,000
Bombay City ...	8,415	1,891
Madras " ...	3,000	14,000
N. W. Provinces ...	22,692	5,069
Punjab	17,938	1,032
Oudh	5,446	985
Central Provinces ...	5,409	757
British Burmah ...	1,547	3,500
Mysore	4,132	2,863
Coorg	103	656
Berar	903	......
Bengal and Bombay ...	......	40,000
Total ...	147,585	82,789

The Christians are as under:

Protestants	285,082
Roman Catholics	760,623
Syrians in Travancore and Cochin	116,483
Armenians, estimate	5,000
	1,167,188
Add Europeans	147,585
" Mixed	82,789
Total Christians in India ...	1,397,562

Native Protestant Christians in 1862.

	India and Ceylon in 1852.	India and Ceylon in 1862.	India, Ceylon and Burma in 1862.
Societies	22	31	31
Stations	313	371	386
Out-stations	unknown.	1,925	2,307
Foreign Missionaries.	395	519	541
Native do. ...	48	140	186
Native Catechists ...	698	1,365	1,776
Native Churches ...	331	1,140	1,642
Communicants ...	18,410	31,249	49,688
Native Christians ...	112,491	153,816	213,182
Vernacular Day Schools	1,347	1,562	1,811
Scholars	47,504	44,612	48,390
Boy's Boarding Schools	93	101	108
Christian Boys ...	2,414	2,720	3,158
Anglo-Vernacular Schools	126	185	193
Scholars	14,562	23,377	23,968
Girl's Day schools ...	347	371	373
Girls	11,519	15,899	16,862
Girls Boarding Schools	102	114	117
Christian Girls ...	2,779	4,098	4,201
Translations of the Bible	Ten languages.	Twelve.	Fourteen.
Ditto New Testament.	Five others.	Three others.	Five others.
Separate Boooks ...	...	...	Twenty books in seven others.
Scriptures circulated in ten years ...	unknown.	...	1,634,940
Christian Tracts, Books, &c.... ...	unknown.	...	8,604,033
Mission Presses ...	25	...	25
Expenditure in ten years	£190,000	£285,000	£294,300
Local Contributions ..	£33,500	£45,325	£46,800
Native Contributions last three years.	...	£13,000	About £18,000.

Roman Catholic Christians in 1869.

Vicariate Apostolic.	Bishops.	Priests.	Population.	Schools.	Children attending Schools.	Under the Archbishop of Goa.	
						Priests.	Population.
Madras ...	1	19	36,426	46	2,200	16	5,570
Hyderabad ...	—	8	6,645	8	300	2	350
Vizagapatam ...	1	20	8,993	27	1,430	none	none
Pondicherry ...	1	70	116,598	83	2,817	5	2,314
Mysore ...	1	24	22,600	26	1,200	none	none
Coimbatore ...	1	20	18,000	20	500	none	none
Madura ...	1	53	144,500	16	2,000	13	25,000
Quilon ...	1	26	59,550	70	2,500	7	8,500
Verapoly ...	—	300	233,000	322	8,000	20	40,000
Mangalore ...	1	34	45,000	50	2,000	12	9,000
Bombay ...	1	46	20,360	26	1,731	45	30,000
Agra ...	1	31	14,300	10	750	none	none
Patna ...	1	22	8,000	8	300	none	none
Western Bengal ...	1	26	11,000	12	1,500	4	230
Central Bengal ...	—	5	1,191	7	211	none	none
Eastern Bengal ...	1	9	6,710	7	250	4	3,380
Ava and Pegu ...	1	21	7,750	19	1,000	none	none
Total...	14	734	760,623	756	28,689	128	124,341

The following may be accepted as a near approximation to the strength of each creed among the 164½ millions who inhabit the non-feudatory portion of British India and Burma:—

Christians		
Asiatic	1,167,188	
European and mixed	230,374	1,397,562
Jews		10,000
Mahomedans ...		25,000,000
Parsees		80,000
Non-Aryan aborigines and out-castes ...		12,250,000
Budhists and Jains ...		4,500,000
Sikhs		1,250,000
Hindoos		120,000,000

Population of Asia.

The following figures show the area and population of the principal States of Asia:—

States or Countries.	Square mile.	Population.	Population to a mile.	Capitals.	Population of Capital.
Held by Europeans.					
India	1,577,698	212,671,621	135	Calcutta ...	1,000,000
Ceylon	24,454	2,096,777	86	Colombo ..	45,000
Straits Settlements ...	1,095	282,831	260	Singapore ...	35,000
Labuan and Sarawak ..	55	10,000	180	Labuan ...	3,000
Victoria	29	125,504	4,327*	Hong-Kong ...	125,504
Mauritius	708	322,517	455	Port Louis ...	40,000
Turkistan and Siberia ...	5,783,700	24,000,000	4	Orenburg ... Tashkund ...	18,000
Netherlands India ..	465,411	17,952,803	40	Batavia ...	60,000
Philippines	52,647	2,679,500	50	Manila ...	15,000
Goa, Timor and Macao ...	...	1,288,483	...	Goa ...	10,000
Cochin China	25,000	3,000,000	120	Saigon & Cholon	100,000
Réunion	1,468	255,000	174	St. Denis ...	10,000
French India	191	229,000	1,200*	Pondicherry ...	35,000
Held by Asiatics.					
Afghanistan, Seistan & Balkh.	400,000	4,000,000	10	Kabul ...	60,000
Beloochistan	160,000	500,000	3	Khelat ...	4,000
Burma	260,000	6,000,000	23	Mandalay ...	90,000
Siam	250,000	11,800,000	47	Bankok ...	400,000
Anam	140,000	6,000,000	47	Hue ...	100,000
China	1,297,999	367,632,907	283	Peking ...	1,250,000
Japan	156,604	35,000,000	229	Jeddo ... Miako ...	700,000 475,000
Persia	648,000	4,400,000	6	Tehran ...	85,000
Tibet	1,000,000	5,000,000	5	Lhasa ...	25,000
Eastern Turkistan ..	300,000	1,200,000	4	Kashgar ...	5,000
Arabia	1,200,000	8,000,000	7	Mecca ...	30,000
Turkey (in Asia.)	550,000	16,000,000	29	Symrna ...	150,000

* Chiefly in Towns.

General Administration.—British India, since 1860, has been divided into ten local administrations supervised by a Viceroy and Governor General in Council, though the Presidencies of Madras and Bombay have retained their old dignity, being in direct correspondence with the Secretary of State as well as under the Governor General, and each having a Governor, Commander-in-Chief and Council composed of these officials and two civilians. Berar is administered for the Nizam of the Dekhan, Mysore also is under a special administration, but Coorg is directly a British province. The remainder of them are more directly under the supervision of the Governor General in Council. Madras, Bombay and Calcutta have each a Legislative Council as well as a High Court. These councils, as well as the Legislative Council of the Governor General consist of executive members of Government, of two representatives of the British mercantile community and two or three representatives of the Natives, as extraordinary members. The North-Western Provinces have a High Court and the Punjab a Chief Court. The Governor General's Council for making laws, legislates for all India in general and for the Provinces which have no legislatures of their own in detail, these Provinces being represented by officials. The Governor General must sanction every Act of the three subordinate Councils before it can become law, and the Secretary of State for India may advise Her Majesty to veto any Act of the Governor General's Council.

Foreign political relations.—When the mutiny of 1857-1858 and 1859 swept away the last relics of the emperor of Delhi, and with them the East India Company's rule, the princes of India found themselves brought face to face with their sovereign Queen Victoria. Neither they nor the British at first realised all that the change involved. Dimly groping after a definition of his new position, the late maharajah of Putiala sought for the recognition of himself and his house as an Indian noble of the British Empire. Above all rewards for his great services to the empire in those days he demanded perpetuity for his house and honors. Sir John Lawrence, just then made Lieutenant Governor of the Punjab, worked out the chief's idea into a recognition of the right of adoption on the failure of natural heirs. Lord Canning seized the idea thus conceived by Putiala, and after a reference to Her Majesty's Government, it took complete form as a law of the new empire. Lord Canning wrote that famous despatch, dated the 30th April 1860, in which he decreed—what hindoo law had never absolutely ordained—that adoption to a state should always be recognized by the paramount power, subject to the two conditions of loyalty to the crown and fidelity to all engagements with the British Government. In that despatch he thus wrote—" The last vestiges of the Royal House of Delhi, from which, for our own convenience, we had long been content to accept a vicarious authority, have been swept away. The Peishwa has disappeared. The Crown of England stands forth the unquestioned ruler and paramount power in all India, and is for the first time brought face to face with its feudatories. There is a reality in the suzerainty of the sovereign of England which has never existed before, and which is not only felt but eagerly acknowledged by the chiefs." The following was the sunnud or patent of nobility.

" Her Majesty being desirous that the governments of the several princes and chiefs of India, who now govern their own territories, should be perpetuated, and that the representation and dignity of their houses should be continued; in fulfilment of this desire, this sunnud is given to you to convey to you the assurance that, on failure of natural heirs, the British Government will recognize and confirm any adoption of a successor made by yourself or by any future chief of your state, that may be in accordance with hindoo law and the customs of your race. Be assured that nothing shall disturb the engagement thus made to you so long as your house is loyal to the crown and faithful to the conditions of the treaties, grants, or engagements which record its obligations to the British Governments,

11th March 1862. (Signed) CANNING.

A similar patent was given to mahomedan princes. All who hold that patent are nobles of the British Indian Empire. They constitute its patriciate. Since Lord Canning's time, the maharajah of Mysore has been added to the roll. In the following list of the Indian chiefs the mahomedans are printed in italics; the rest may all be taken as hindoos. The maharajah Dhuleep Singh, has exchanged for his Indian rights and privileges the position of a noble in the Queen's own court.

These feudatories are 153 in number and are as follows, arranged alphabetically :—

Feudatory.	*Place.*
Ajeygurh, Rajah	Bundlecund.
Akulkote, Rajah	S. Mahratta Country.
Alipoora, Jagheerdar	Bundlecund.
Bansda, Chief	Kolapore.
Banswarra, Chief	Rajpootana.
Baonee, Nawab.	
Beejah, Chief	Punjab.
Behree, Jagheerdar	Bundlecund.
Behut, Jagheerdar	Bundlecund.
Belaspore, Chief	Punjab.
Benares, Rajah	Benares.
Beronda, Rajah	Bundlecund.
Bhaghul, Chief	Punjab.
Bhopal, Begum.	
Bhownuggur, Chief	Sholapore.
Bhughat, Chief	Punjab.
Bhujjee, Chief	Punjab.
Bhurtpore, Maharajah	Rajpootana.
Bikaneer, Maharajah	Rajpootana.
Bijawur, Rajah	Bundlecund.
Bijna, Chief	Bundlecund.
Boondee, Rajah	Rajpootana.
Bulsun, Chief	Punjab.
Bunganpully, Jagheerdar	Ceded Districts.
Bussahir, Chief	Punjab.
Bustar, Rajah	Central Provinces.
Eight Callinjer Chobeys	Bundlecund.
Cambay, Nawab.	
Cashmere, Maharajah	Punjab.
Chumba, Chief	Punjab.
Chutterpore, Rajah	Bundlecund.
Cochin, Rajah	Cochin.
Cooch Behar, Rajah	Cooch Behar.
16 Chiefs Tributary Mehals	Orissa.
Dewas, Chief	Central India.
Dhar, Chief	Central India.
Dhamee, Chief	Punjab.
Dholepore, Rana	Rajpootana.
Dhoorwye, Chief	Bundlecund.
Doojana Nawab.	
Durkote, Chief	Punjab.
Dhurmpore, Chief	Kolapore.
Doongurpore, Chief	Rajpootana.
Dufflay, Jagheerdar	Satara.
Duttia, Rajah	Bundlecund.
Edur, Chief	Kolhapore.
Furreedkote, Rajah	Punjab.
Gerowlee, Jagheerdar	Bundlecund.
Ghurwal, Rajah.	N. W. Provinces.
Gourihar, Jagheerdar	Bundlecund.
Guickwar	Baroda.
Holkar	Central India.
5 Husht Bhya Jagheerdars	Bundlecund.
Hyderabad, Nizam.	
Jeypore, Maharajah	Rajpootana.
Jheend, Rajah	Punjab.

Jhallawer, Rana	Satara.
Jignee, Jagheerdar	Bundlecund.
Joobul, Chief	Punjab.
Joudhpore, Chief	Rajpootana.
Jusso, Jagheerdar	Bundlecund.
Jessulmere, Chief	Rajpootana.
Karonde, Rajah	Central Provinces.
Keonthul, Chief	Punjab.
Kerowlee, Chief	Rajpootana.
Kishengurh, Chief	Rajpootana.
Khulsea, Chief	Punjab.
Kolapore, Rajah	Kolapore.
Koomharsein, Chief	Punjab.
Koonhiar, Chief	Punjab.
Kotah, Chief	Rajpootana.
Kothur, Chief	Punjab.
Kothee, Jagheerdar	Bundlecund.
Kunnya Dhana, Jagheerdar	Bundlecund.
Kuppoorthulla, Rajah	Punjab.
Kutch, Chief	Guzerat.
Logassie, Jagheerdar	Bundlecund.
Makraie, Chief	Central Povinces.
Moodhole, Chief	South. Mah. Country.
Mundee, Chief	Punjab.
Mungal, Chief	Punjab.
Myhere, Chief	Bundlecund.
Mylog, Chief	Punjab.
Nabha, Rajah	Punjab.
Nagode, Chief	Bundlecund.
Nahun, Chief	Punjab
Nalagurh, Chief	Punjab
Nimbalkur, Jagheerdar	Satara
Nowanuggur, Chief	Kolapore.
Nyagaon Behai, Jagheerdar.	Bundlecund.
Oodeypore, Maharajah	Rajpootana.
Paharee, Chief	Bundlecund.
Poodoocotta, Chief	Poodoocotta.
Punnah, Rajah	Bundlecund.
Punt Prithee, Nidhee	Satara.
Pertabgurh, Rajah	Rajpootana.
5 Putwurdhuns.	Southern Mahratta.
Puttiala, Maharajah	Punjab.
Rajpeepla, Chief	Kolapore.
Rewah, Rajah	Bundlecund.
Satara, Jagheerdars	Satara.
Sawant Waree, Chief	Sawant Waree.
Lerobi, Chief	Rajpootana.
Shahpoora, Rajah	N. W. Provinces.
Sindia	Central India
Lohawul, Chief	Bundlecund.
Looket, Chief	Punjab.
Sundoor, Chief	Bellary in Ced. Dist.
Sumpthur, Rajah	Bundlecund.
Sirdar Shumshere Sing.	Sindhanwallah, Punjab.
Sureela, Chief	Bundlecund.
Tehree, Chief	Bundlecund.
Tej, Sing	Punjab.
Toree, Chief	Bundlecund.
Travancore, Maharajah	Travancore.
Turoch, Chief	Punjab.
Ulwur, Chief	Rajpootana.

These 153 nobles alone constitute the patriciate of India; they govern a population and area larger than those of France and Belgium. The latest Parliamentary Return, published in 1868, estimates the area of India under their administration at 596,790 square miles, and the population at 47,909,199, or nearly a third of the whole area of 1,577,000 square miles and nearly a fourth of the population of 204,000,000. Their troops far outnumber the British European and Sepoy army; their ordnance, even that part of it which is serviceable, is equal in number to the British. Their wealth is enormous and their revenues are personal, these 153 Chiefs, from 43¼ millions of people, covering 562,318 square miles, draw an annual revenue of 11½ millions sterling irrespective of the very large incomes of the nobles who in their turn are feudatory to them. The wealthiest of them are as under

	Square miles.	Population	Annual Income.
			£
1. Nizam of Hyderabad ...	95,337	10,666,080	1,650,000
2. Maharajah Sindhia ...	...	2,500,000	1,110,910
3. Guikwar of Baroda ...	4,399	1,710,404	600,000
4. Maharajah of Jeypore ...	15,250	1,900,000	500,000
5. Maharajah of Travancore ...	6,653	1,262,647	448,063
6. Maharajah of Cashmere ...	25,000	700,000	400,000
7. Maharajah of Jodhpore ...	35,672	1,783,600	350,000
8. Maharajah of Holkar ...	8,318	576,000	330,000
9. Maharajah of Putiala ...	5,412	1,586,000	300,000
10. Maharajah of Oodeypore ...	11,614	1,161,140	266,127
11. Maharajah of Bhurtpore ...	1,974	743,710	263,692
12. Begum of Bhopal ...	6,764	663,656	240,000
Total ...	... ..	....	6,458,792

These twelve princes have an annual revenue of nearly six and a half millions sterling.

Revenues. During all ages, the rulers of India have regarded the land as the property of the State, and the bulk of the public revenues has ever been obtained from it. In 1856, it furnished more than one half of the total revenues of the E. I. Company, and even up to 1864-65, during which other taxes were levied, out of a total of £45,652,897, the large revenue of £ 20,087,728 was, in that year, obtained from the land. The late James Mill, writing on this part of the revenue, remarked "as far as this source goes the people of the country remain untaxed. The wants of Government are supplied without any drain either upon the produce of any man's labor or the produce of any man's capital." The assessment on the rent has varied in amount in every district, and was either in money or in kind according to local custom. Under native rulers, a fixed proportion of the gross produce was taken: but the British Indian government deals with the surplus or net produce which the estate may yield after deducting the expenses of cultivation, and the directions to the Revenue Settlement officers provide that at least one-third of this net produce shall always be left to the cultivator as his profit.

In Bengal, in 1793, Lord Cornwallis, made a permanent settlement with zemindars, a class of middlemen whom he found collecting land revenues, by which these pay direct to Government a sum equal to a little more than one-half what they receive as rent. By that measure, Government ceased to have any direct participation in the agricultural improvement of that part of the country. Eminent statesmen have deemed making this arrangement a grave error.

About 1839, a thirty years' lease was made in the N. W. Provinces; and this has been followed in the Punjab. It is estimated that, in this case, the assessment was about two-thirds of the surplus after deducting the expenses of cultivation profits of stock and wages of labor, and in the revised settlements now in progress it is reduced to one-half the yearly value.

In the Madras presidency, the zemindary tenure exists in a few districts, but, princpally, in the Northern Circars, since the settlement of 1802. Another system, that of village-renters is in operation, in which the villagers stand in the place of the zemindar. In the ryotwar system, the government, as the landlord, treats direct with the holder who is recognized as the proprietor so long as he pays the regulated assessment. He can sub-let, sell, transfer or mortgage it. The assessment is fixed in money and does not vary from year to year unless when water is obtained from a Government source of irrigation. An annual settlement is made, not to re-assess the land but to determine upon how much of his holding the ryot shall pay.

In Bombay, the ryotwar system prevails, but the assessment is open to revision every thirty years.

It has been proposed further to capitalize the income which the state derives from the land; but, to do so would deprive the State in future years of a source of revenue on which it can, in all circumstances, confidently rely and than which none is more easily collected or more willingly paid, and the most recent orders permit a redemption only for the land needed for dwelling houses, factories, gardens, plantations and similar purposes, and a permanent settlement in all parts of India where no considerable increase can be expected in the land revenue, and where its equable apportionment has been or may hereafter be satisfactorily ascertained and in which the cultivation exceeds 80 per cent of the cultivable area.

Nothing in the history of commercial progress is more healthy than the course of the trade of India, both foreign and coasting, since the mutiny of 1857. The foreign commerce, and it partly feeds the coasting trade, has more than doubled in value since 1855-56. The figures include both merchandize and treasure:—

Years.		Imports.	Exports.	Total.
		£	£	£
1855-56	...	25,244,782	23,640,444	48,885,226
1856-57	...	28,608,284	26,591,879	55,200,163
1857-58	...	31,093,065	28,278,474	59,371,539
1858-59	...	34,545,659	30,532,298	65,077,948
Annual Average	..	26,452,542	25,847,471	52,790,013
1859-60	...	40,622,103	28,889,210	69,511,318
1860-61	...	34,170,793	34,090,154	68,260,947
1861-62	...	37,272,417	37,000,397	74,272,814
1862-63	..	43,141,351	48,970,785	92,112,136
1863-64	...	50,108,171	66,895,884	117,004,055
Annual Average	...	41,062,967	43,169,286	84,232,253
1864-65	...	49,514,275	69,471,791	118,986,066
1865 66	...	56,156,529	67,656,476	123,813,004
1866 67	...	45,237,332	50,202,777	95,440,169
1867-68	...	49,560,528	51,478,093	101,038,621
1868-69	...	51,146,096	54,457,745	105,603,841
Annual Average	...	50,322,952	58,653,376	108,976,328
1869-70	...	46,883,327	53,513,728	100,395,055

The trade has been thus divided among the five great groups of ports in the last two years:—

Ports.		1868-69.	1869-70.
		£	£
Bengal ...	...	42,591,823	40,467,202
Bombay ...	..	47,374,964	45,358,763
Madras ...	..	10,218,675	10,158,854
British Burmah ...		3,841,844	2,846,824
Sindh ...	...	1,576,432	1,568,093

The article of merchandize which India imports most largely in return for its raw produce, is cloth of every variety, especially cotton:—

	1868-69.	1869-70.
	£	£
Cotton Manufactures...	18,858,112	16,271,216
Wool " ...	859,629	594,142
Silk " ...	488,042	466,593
Apparel ...	497,891	451,230
Regulation Uniforms...	16,344	15,233

The growth of the staples of export, in the ten years since the mutiny ceased to influence India, will be seen from the following instructive figures:—

		1859-60.	1864-65.	1868-69	1869-70.
		£	£	£	£
Coffee	...	188,532	891,908	1,101,384	861,702
Cotton, Raw	...	5,637,624	37,573,637	20,149,825	19,079,138
Indigo	...	2,021,288	1,860,141	2,893,823	3,178,045
Rice	...	2,276,296	5,573,537	4,210,925	3,020,276
Wheat and other kinds of grain..		312,266	382,871	231,143	139,253
Hides and Skins...		444,537	725,236	272,991	333,333
Jute	...	290,018	1,307,844	1,891,899	1,984,195
Opium	...	9,054.394	9,911,804	10,695,654	11,693,380
Seeds	...	1,548,721	1,912,433	1,967,215	2,189,002
Silk, Raw	...	817,853	1,165,901	1,335,400	1,422,076
Sugar and Sugar Candy	...	1,031,944	765,110	373,506	276,946
Tea	...	...	..	951,376	1,037,888
Wool, Raw	...	436,672	1,151,002	615,125	465,226

The increase of territory has been so continuous, that any comparing of the revenue, expenditure and debt of former, with those of recent, years, is uninstructive. Since 1792-3, the Carnatic, the Ceded Districts, the greater part of the North West Provinces, all the Punjab and Sindh, the Central Provinces, Burmah, Assam, Orissa, Oudh, Sattarah and other parts have been added to British Indian territory and even since 1849 since the close of the Punjab war, the following territories have been annexed to the British dominions by the Governor General of India.

	Date of annexation.	Reasons.	Area Square miles.	Population.	Gross Revenue.
					Rs.
Jeitpur (Bundelcund.)	1849	Failure of heirs.	165	16,000	64,130
Sumbulpur, South West frontier of Bengal	1850	do.	4,693	2,74 000	73,000
Bughat (Cis-Sutlej Hill States) ...	„	do.	30	3,420	700
Part of Sikkim N. E. India. ...	1852	Insult to British representative.	1.670	61,766	32,037
Oodeypur S. W. Frontier of Bengal...	„	Failure of heirs.	2,306	1,33,000	16 480
Pegu...	„	Conqueredin war.	20,000	1,000,000	Not known.
Resumed from Mir Ali Murad a Sind Amir		Forgery	5,412	Not known.	4,83,658
Country of Tularam Sonapati in Northern Cachar	1853	Mis-conduct.	2,160	5,015	1.208
Nagpore	1854	Failure of heirs.	80,000	4,000,000	4,000.000
Jhansi (Bundelcund)	„	do.	2,532	200,000	2,00 000
Boodawal (Khandish)	1865	do.	...	910	2,727

It may however be interesting to contrast the conditions of 1792-3 and 1868-9.

Year.	Gross Revenue.	Gross Charges.	Surplus.
	£	£	£
1792-3	8,225,628	6,940,833	1,284,795
			Deficit.
1868-9	51,657,658	54,431,688	2,774,038

and the following have been the amounts of revenues—the charges, and debt since 1858-9.

Year.	Total Revenues and Receipts.	Total Charges in India and England.	Debt.
	£	£	£
1858-9	35,965,018	50,194,690	71,557,369
1859-60	39,602,850	50,372,711	88,104,266
1860-61	42,728,601	46,749,986	93,036,688
1861-2	43,487,934	43,538,562	96,652,053
1862-3	44,801,686	42,974,304	96,401,870
1863-4	44,279,467	44,201,120	90,520,618
1864-5	45,395,384	45,588,905	90,301,165
1865-6	48,514,749	45,748,681	90,082,216
1866-7	41,590,736	44,108,227	92,152,973
11 months. 1867-8	48,053,178	49,663,375	94,055,358
1868-9	48,531,763	52,676,406	93,583,155

Latterly the debt has been increasing somewhat faster than the revenue. Up till the years of the mutiny, the public debt was usually about eighteen or twenty months of the amount of the gross revenue. Since the mutiny, the debt has been equal to twenty five or twenty-six months revenue:

Year.	Gross Revenue.	Debt.
	£	£
1812-3	16,336,290	30,313,312
1820-1	21,352,241	33,010,651
1830-1	22,019,310	36,830,147
1840-1	20,851,073	31,233,496
1850-1	27,625,360	49,349,347
1860-1	42,728,601	93,036,688
1867-8	48,053,178	94,055,358
1868-9	48,531,763	93,583,155

Of the entire gross revenue for 1868-9 which at pages 250-251 of the Annals of Indian Administration, Vol. XIV, is given at £49,186,289, six-sevenths were derived from the six following items, viz:—

Land Revenue	£19,926,171	Opium ...	8,453,365
Excise ...	2,283,736	Stamps ...	2,306,971
Customs...	2,692,755	Total	41,251,238
Salt ...	5,588,240		

The land tax has ever been the source on which the various hindu, mahomedan and christian rulers in India have depended for their revenues and, except the British, under the administrations of Lord Cornwallis and Lord

Canning, during whose governments were introduced systems of permanent settlements of portions of the country and a right to purchase free holdings, every dynasty has kept that source of revenue intact. Grants of the royalties of the lands, in the form of jaghire, were usual; but the proprietorship in the soil has remained in the hands of the communities and descendants of the individuals, who cleared it a thousand years ago; although mahomedan dynasties have been ruling large portions of India for a thousand years, mahomedans have no lands. The salt tax, which now yields a tenth part of the entire revenue was first introduced by the British. The stamp tax is of recent introduction.—*Ann. Ind. Adm., Vol XI,* 321, *&c.* 322 *&c.* 323.

BRITTANT-PATR. Hind. The record of a decision given by a panchayat.—*Elliot.*

BROA, Hind. Rhododendron arboreum.

BROAD-CLOTH. A woollen fabric, largely imported into India from Great Britain.

BROAD LEAVED BASSIA, Eng. Bassia latifolia.—*Willd.*

BROAD-LEAVED BUCHANANIA, Eng. Buchanania latifolia.

BROAD-LEAVED CASSIA, Eng. Cassia alata.

BROAD-LEAVED CORDIA, Eng. Cordia latifolia.

BROAD-LEAVED GARDENIA, Eng. Gardenia latifolia.

BROCADE. Eng. Fr.

Brokade	Dut.	Intalas ; Kimxa ; Sandus	Malay.
Brokal	Ger.		
Luppa	Guz. Hind.	Parstcha	Rus.
Khimkhab	„	Brocado	Sp.
Broccalo	It.		

A fabric composed of satin, striped or purpled, with gold or silver, manufactured at Surat, Benares and Ahmedabad, and used by rich natives. The manufacture of gold and silver brocade in Benares, is well worth seeing. The looms, which are very simple in their construction are situated at a short distance from the city. The gold and silver pass through many hands before they are formed into thread. Indeed, Benares has ever been a great place of trade and is so at this day. Brocades (Kamkhab), gold woven scarves (dopatta), and silks are consigned from this city together with a kind of yellow silk dhoti, called "pitambar," and a dark-blue silk, with white spots, called "bund," also the silk sari or scarves, exclusively for women's wear, forming both a skirt and a scarf. —*Faulkner. McCulloch. Dr. Taylor.*

BROCCOLI. See Brassica ; Cauliflower.

BRODERIPIA. See Turbinidæ.

BRODLEA plants with lilac, blue and white flowers.

BRODKUMMEL, Ger. Caraway seed.

BROMELIA, a genus of West Indian plants, some species of which have been introduced into India.—*Voigt.*

BROMELIA ANANAS, Linn. Ananas sativus. Pine Apple. See Ananas.

BROMELIACEÆ, the Pine-apple tribe, the Bromel worts, a natural order of dry herbaceous plants, remarkable for the hardness and dryness of their foliage. The Pine-apple, Ananas sativus, belongs to this.

BROMUS. A genus of plants belonging to the Panicaceæ, several species of which B. mollis, purgans, and catharticus, are cultivated in India.

BRONCHOCELA JUBATA. A genus of reptiles of the family Agamidæ, Order Sauria. This one is found near Pondicherry.

BRONONG, Malay. Baskets.

BRONZE.

Stuck-good	Dut.	Metallum tormentorum	Lat.
Stuckgut	Ger.	Gangsa ; gongsa	Malay.
Stuckmetall	„	Metal de Canones	Sp.
Bronzo	It.		

an alloy of copper and tin much employed in the arts.

BRONZE LEATHER Kimsana, Hind.

BRONZO, It. Bronze.

BROOKE, Sir James, Rajah of Sarawak, was born on the 29th of April, 1803, at Coombe Grove, near Bath. He was the second son of Mr. Thomas Brooke, who had been long employed in the civil service of the East India Company. Sir James Brooke entered the Bengal Army and served in the first war against Burmah where he was severely wounded by a gun shot wound in the chest at the storming of a stockade. This rendered his return home on furlough indispensable after which he lost his appointment by overstaying his leave and in 1830 he sailed from Calcutta to China and saw for the first time the islands of the Asiatic Archipelago To carry to the Malay races the blessings of civilization, to suppress piracy and extirpate the slave trade, became his humane and generous desire. On the death of his father, he succeeded to a handsome patrimony, and on the 27th of October, 1838, the Royalist quitted England for Sarawak. He found its ruler, Muda Hassain, engaged in the suppression of a rebellion and was applied to Mr. Brooke for his co-operation. A few volleys from the European guns settled the fate of the day, and the insurgents surrendered at discretion. Mr. Brooke was duly installed in the rank previously promised to him. The newly-acquired territory was swampy, and ill cultivated by the native Dyaks, who varied their occupations as tillers of the land by head-hunting excursions among neighbouring village. He declared head-hunting a crime punishable by death to the offender, and he acted with such vigour, as to suppress it and piracy. On revisiting Britain the British Government recognised his position; ordered a man-of-war to take him to the seat of his new settlement, gave him the title of Governor of Labuan with a salary of £1,500 a year, with an extra £500 a year as a consular agent, and afforded him the services of a deputy Governor, also on a good salary; the hope being, that the result of all this would be the opening of a new emporium for British trade. He proved a benefactor to the uncivilised race over which he presided. He compiled a code of laws, declared trade to be free, all roads to be open, all property inviolable, instituted a current coinage. Antimony ore he reserved to himself, but compelled none to work the mines against their will; he showed that he could be merciful where mercy would not outrage justice, while he rigorously suppressed head-hunting and marauding expeditions which gradually became extinct in the province.—*Men of the Time.*

BROOME, Colonel Arthur, an Officer of the Bengal Artillery, author of History of the Rise and Progress of the Bengal Artillery.

BROOM GRASS. Aristida setacea, *Lin.*

BROOMS.

Balais	FR.	Metlu	RUS.
Besen	GER.	Escobas	SP.
Jaru	HIND.	Todapam	TAM.
Scope	IT.	Chiparu	TEL.

Articles for sweeping floors, walls, ceilings, &c. They get the name of broom, because first made in Europe from the small branches of the plant of that name. In India, they are made of the strong grasses which abound. That in Southern India, is the Torapum pilloo, broom grass, but " Vullakamar" the "erkoo," bamboo branches, the midrib of date and of cocoanut leaves, and of the Elate sylvestris are also used, as also are the Vitex negundo and Ferreola buxifolia.—*Ains. Mat. Med. p.* 145.

BROOM SEEDS. See Coffee.

BROONGA MALAGUM OINTMENT. See Oil.

BROONSERRA, in Long. 91° 58′ E. and Lat. 22° 11′ N.

BROOSH, ANGLO-HINDI, Brushes.

BRORI, HIND. Ulmus campestris.

BROSIMUM ALICASTRUM, Swz. The Jamaica Bread Nut Tree and the B. utile, *Endl.* the cow tree of the Caraccas, were both introduced into the Calcutta Garden. They have a tenacious gummy milk.—*Voigt,* 29. See Cow-Tree.

BROSSES, FR., Brushes.

BROTHER.

Bhai	HIND.	Bradr	PERS.
Frere	FR.	Tambi	TAM.
Frater	LAT.		

In Eastern countries, this term is applied to relatives not so designated in Europe, as to cousins, also to persons of the same faith or town, or country. These last are supplemented by a class of friends, styled munh-bola-bhai " so called brothers," common throughout India. This Eastern use of the word brother has caused difficulties to readers of the christian Bible. Jude in connexion with James, though called (*Matt. xiii.* 55,) the " brethren of Jesus," were really the cousins of the Messiah, it being common with the Jews, to call the first cousins brethren. They were the sons of Mary, the sister of the mother of Jesus the wife of Cleophas. In Brittany, at the present day, if two cousins german be married, the son of one of these cousins will address the other as " ma tante" my aunt, he is her neveu a-la-mode de Bretagne.—(*Milner's Seven Churches of Asia, p.* 47.) The late Mr. Burns, thus related the ceremony of brother making amongst the Kyans. Singuding sent on board to request me to become his brother, according to Kyan fashion. The ceremony is called by the Kyans " berbiang," by the Borneons " bersabibah." I landed with our nakodah, and after some preliminary talk, to allow the crowd to assemble, the affair commenced, we sat in the verandah of a long house, surrounded by some hundreds of men, women and children, all looking eagerly at the white stranger who was about to enter their tribe. Stripping my left arm, Kum Lia took a small piece of wood, shaped like a knife blade, and slightly piercing the skin brought blood to the surface, which he carefully scraped off; then nakodah Gadore drew blood in the same way from Singuding's right arm, the one next me, and a small cigarette being produced, the blood on the wooden blades was spread on the tobacco, scarcely spread for the quantity was as small as could be imagined. A chief then rose, and walking to a sort of window, looked full upon the river, and invoked the spirits of good and evil to be witness of this tie of brotherhood; the cigarette was then lighted, and each of us took several puffs, and the ceremony was over. Amongst the rajput races of India the women adopt a brother by the gift of a bracelet. The intrinsic value of such pledge is never looked to, nor is it necessary that it should be costly, though it varies with the means and rank of the donor and may be of flock silk and spangles or of gold chains and gems. The acceptance of the pledge is by the "Katchli" or corset, of simple silk or satin or gold brocade and pearls. Colonel Tod was the Rakhi-bund-bhai of the three queens of Oodipur, Bundi and Kotah, as also of Chund-Bai the maiden sister of the Rana, and of many ladies of the chieftains of rank. Though the bracelet may be sent by maidens it is only on occasions of urgent necessity and danger. The adopted brother may hazard his life in his adopted sister's cause and yet never receive a mite in reward for, he cannot even see the fair object who, as brother of her adoption, has constituted him her defender.—*Tod's Travels, Journal Indian Archipelago, Vol. V. No.* 12.

BROUSSONETIA PAPYRIFERA.—*Vent.*

Morus papyrifera, *Linn.*
Papyrius Japonica, *Lam.*

Mahlaing	BURM.	Paper Mulberry	ENG.
Killia of Celebes tree		Gluga	JAV.

Is a shrub or small tree with soft brittle woolly branches, and large hairy rough leaves either heart-shaped and undivided, or cut into deep irregular lobes. The tree has long been famous for its fibrous bark, as this is made into a kind of cloth as well as into paper. It is a native of the isles of the Southern ocean, as well as of China and of Japan, but has been introduced into the Madras Gardens. In Taiti, or Otaheite, and other islands, they make cloth of its bark; and it is said that the finest and whitest cloth and mantles worn by the principal people at Otaheite and in the Sandwich Islands were made of the bark of this shrub, and this when dyed red takes a good colour. It is from the inner bark of this plant that the Japanese and the Chinese manufacture a kind of paper. Its bark is reduced to a pulp, which is spread into sheets and made into paper.—*Voigt.* 284.

BROUGHTON, lord, formerly John Cam Hobhouse, born June 27, 1786, died June 3, 1869. He was the friend of Lord Byron, was a Radical Reformer and was sent to Newgate as a political prisoner. Was long President of the Board of Control.

BROWALLIA, blue and white flowering plants, easily cultivated from seed in any good soil.—*Riddell.*

BROWN COAL See Coal.

BROWN HEMP. The commercial name given in Bombay to the fibres of the Hibiscus cannabinus. It is the Ambaree or Mestapat of Bengal and the Palungoo of Madras, and is also known as Indian Hemp and "hemp." See Ambaree; Crotalaria juncea; Calotropis; Hemp

BROWN JAWAREE, ANGLO-HIND. Sorghum vulgare.

BROZAS, also Cepillos, also Escobillas Sp. Brooms.

B'R PUKHTUN. The language of the Afghan people who dwell about Kabul, Kandahar, Shorawak and Pishin. See Afghan; India; L'r Pukhtun.

BRABIRA. See Ravana.

BRAB TREE, ENG. Borassus flabelliformis, Palmyra.

BRUCEA ANTIDYSENTERICA, is considered by the Wooginoos of Abyssinia a most valuable remedy in dysentery and severe cases of diarrhœa. The false angustura bark was long supposed to be the produce of this Brucea, and its active principle was accordingly named Brucine. It is now, however, established that the false augustura bark is that of the Strychnos nux-vomica, the Kuchila tree of Bengal.—*O'Shaughnessy, page* 626.

BRUCEA SUMATRANA, *Roxb.* Fl. Ind. i. 449.

Gonus amarissimus.—*Lour.*

A plant of Assam, Cochin China, Sumatra and Moluccas; green parts intensely bitter. It has been successfully grown in the Botanic Garden of Calcutta. In one year the plants grew to about four feet high.—*Voigt.* 185. *O'Shaughnessy, page* 226.

BRUCK, Captain, Indian Navy. His report on the Persian Gulf, enumerates as articles of trade,—silk, dried fruits, gums, dates, horses, pearls, and spices, to the amount of 60 or 80 lakhs annually.

BRUGH, HIND. Echinops nivea.

BRUGMANSIA. A genus of ornamental flowering plants.

BRUGUERA. One of the mangrove tribe, the Rhizophoraceæ. B. Rheedii, all round the coasts, has hard durable yellowish wood, and B. parviflora of Mergui and the Soonderbuns has small green and scented flowers. The Burmese apply the names Pyu and Soung to B. Rheedii, B. eriopetala and B. parviflora.—*Voigt* 41.

BRUGUIERA PARVIFLORA, *W. & A.*

Rhizophora parviflora.—*Roxb.*
R. Cylindrica.—*Roxb. H. B.*

Pyu	BURM.	Uravada	TEL.
Soung	,,	Varavada	,,

This mangrove grows in the Moluccas, Sumatra, Cochin-China, in the Malay Islands, in both the Indian Peninsulas, the Khassia mountains, Nepaul, Orissa, Jellasore. Berries dye black.—*Voigt, Elliot, Fl. Andhrica.*

BRUGUIERA RHEEDII, *L'Herit.*

Bruguiera gymnorrhiza,—*Lam.*
Rhizophora gymnorrhiza,—*Linn.*

Pyu	BURM.	Kankra	BENG.
Soung	,,	Mangrove	ENG.

This species of mangrove is most abundant along the Tenasserim shores and furnishes a hard and durable timber. The tree is easily distinguished from its associates, for it drops no roots from its branches, but the trunk is divided into numerous roots for half its height, like a small bamboo pavilion. It grows in Cochin China, the Moluccas, Java, Tenasserim, Penang, the Sunderbuns and in Malabar. The wood is yellowish.—*Voigt. Mason.*

BRUGUIERA MADAGASCARIENSIS, *Rheede, D. C.* Syn. of Lumnitzera racemosa.—*Willd.*

BRUH. See Simiadæ.

BRUM BRUM, HIND. Hedera helix.

BRUMER ISLAND. Their mode of salutation or expression of friendship consists in first touching the nose with the forefinger and thumb of one hand, and then pinching the skin on each side of the naval with the other, calling out at the same time, magásúga! This habit resembles on one hand that of rubbing noses, so general in Polynesia, and on the other, the custom of pinching the navel and repeating the name for that part, practised by the islanders of Torres Strait.—*Macgillivray's voyaye, Vol. I. p.* 258.

BRUMHACHARI. See Brumhachari: Mendicants.

BRUMHANTSAWEEN. See Tripati.

BRUMIJ, HIND. Celtis Caucasica, also Echinopsnivæa.

BRUMO OR DUMO, TIBET, the cow of the Yak or chaori tailed bull.

BRUSCANDOLI, IT. Hops.

BRUSHES.

Brosses… .. …… …FR.	Schtschetki………… RUS.
Bursten…… … …GER.	Brozas………………SP.
Brūsh…… … …HIND.	Escobillas…… … . . „
Setole Spazzole… ….IT.	Cepillos……………… „
Sikat; Sapu… MALAY.	Brush.. … …… …VERN.
Escovas…… ……PORT.	

This class of articles, made of hair, of bristles, of whale bone, or of palm tree fibres is wholly imported into India.

BRUSS-CAPOOR, Camphor, a corruption of Baras Camphor. See Baras.

BRYONIA, *Spec.*

Chukan pullam……TAM.	Gotoomba… … …SANS.
Boodama pundoo ….TEL.	

This bryonia, grows in the woods; the fruit inferior and only eaten by the common people. Bryonia Alba, and B. dioica have similar properties.—*O'Shaughnessy, page* 347. *Ainslie.* See Xanthochymus; Cocculus palmatus; Calumba.

BRYONIA CALLOSA.

Boddama Kaia………TEL.	Thukkam Kai……TAM.
Tumutti Kai… ….. .TAM.	

The bitter seeds are given in worm cases, and yield also a fixed oil used in lamps. It is called

Toomutti kai yennai……TAM.	Boddama kaia noona, TEL.

and is used in some parts of the country, where the fruit abounds. It is extracted by boiling in water, and is procurable only in very small quantities.—*Madras Exhibition of* 1867. *O'Shaughnessy, page* 348.

BRYONIA COCCINIA.

Covay-kai. TAM.

Common everywhere in hedges and gardens, where it is a troublesome weed. The fruit when green is used in making chatney.—*Jaffrey.* See Vegetables of Southern India.

BRYONIA DIOICA the Bruoma of Dioscorides. Root large, white, long, fleshy, acrid and purgative, produces also violent vomiting. It was formerly a very popular remedy in Europe, but is now banished from the Pharmacopœiæ —*O'Shaughnessy,* 347.

BRYONIA EPIGŒA. *Rottl.—W. & A.*

B. Glabra.—*Roxb.*	B. Palmata.—*Wall.*
Rakus Gudda.. … HIND.	Akasa garuda gadda, also
Kalango kovay kelangu. TAM.	Muru donda; also Nagadonda… ………TEL.

This valuable bitter root when dried very much resembles in taste the Columba root, to which it also approaches in medicinal qualities, it is mucilaginous and tonic, stomachic and aperient; and natives employ it in the latter stages of dysentery; they also give it internally for old venereal affections and chronic rheumatism—*O'Sh. p.* 347, *Ainslie's Mat. Med. p.* 301.

BRYONIA GLABRA, *Roxb.* Syn. of Bryonia epigœa.

BRYONIA GRANDIS, *Linn.*

Coccinia indica, *W. and A.*

The Plant,

Kandorie…… …… DUK.	Bimb ………………SANS.
Telkatcha…………HIND.	Covay… … … .. …TAM.
Jivaka, vimba, Patuparni……….. . SANS.	

The Leaves,

Covay kooray … .. TAM.	Donda koora … … TEL.
Kundorie ke baujee. DUK.	Bimb…… … … …SANS.

The fruit,

Covay kai……….. TAM.	Donda kaia… … …TEL.
Kundorie ka phul . DUK.	Bimb……… .. …SANS.

The juice of the leaves is used as an application to obstinate ulcers produced by the bites of animals.

The fruit when unripe has a slightly acid but not unpleasant taste. When ripe it is sweetish but insipid; it is smooth, oblong, and about an inch and a half long.—*Ainslie, page* 139. *Vol.* II. *p.* 436.)—*O'Shaughnessy, p.* 348.

BRYONIA LACINIOSA.—*Linn. Roxb. W. A. Rheede.*

Mala… … … ……BENG.	Nehoe-maka …MALEAL.
Gurga-naru… …..HIND.	Linga donda………TEL.

A creeper growing all over India.

BRYONIA MADERASPATANA, *Berg.* Syn. of Bryonia scabrella.

BRYONIA PALMATA, *Wall.* Syn of Bryonia epigœa.

BRYONIA ROSTRATA. *Rottl. W. & A.*

Bryonia pilosa.—*Roxb.*

Appacovay… … …TAM.	Kunkuma donda; Nagadonda………………TEL.

A native of Tranquebar. The root is prescribed in India as an astringent and emollient poultice in cases of piles.—*Ainslie's Mat. Med. p.* 259. *O'Shaughnessy, page* 347.

BRYONIA SCABRA.—*Ainslie. Linn.*

Ahilaykum	SANS.	Musmusa	DUK.
Mosnmooskei keeray	TAM.	Noodosa koora	TEL.
Musmusakaka bajee.	DUK.	Ahilayka	SANS.

The shoots and leaves are aperient : the fruit slightly bitter also.—*O'Sh. p.* 348.

BRYONIA SCABRELLA. *Linn. Roxb.*

Mukia scabrella, *W. Ill. Arn.*
Bryonia Madraspatana. *Berg.*
Cucumis Maderaspatanus, *Linn.*

Bristly Bryony	ENG.	Musimusi aku	TAM.
Ahilayknm, Ahilayka	SANS.	Kutura buduma ; Nugudosa, Potti buduma,	TEL.
Mushumusikei kirey	TAM.	Musmusa ka bauji Musmusa	DUK.
Nudosa kura ?	„		

A creeping plant with yellow flowers and fruit the size of a pea, roots and seeds medicinal.

BRYONIA UMBELLATA, *Willd.*

Gwal kakri	HIND.	Mohakri	HIND.

Not uncommon in the N. W. Himalaya at from 2,500 to 7,500 feet. The fruit is eaten, and on the Sutlej, the root is said to be given for spermatorrhœa.—*Dr. J. L. Stewart,* M. D.

BRYOPHYLLUM CALYCINUM.

Ywet kya pen pouk. BURM.

This curious flowering plant with a leaf like the house-leek was introduced into India by Lady Clive, from the Moluccas, and has been so naturalized on the Tenasserim Coast, that it may be sometimes seen growing around old pagodas like a wild plant.—*Mason.*

BTSOD, TIB., Madder.

BRZOZA. Polish. Birch —Tree, Eng.

BUAH, MALAY, Fruit.

BUA-KAIA-PET, MALAY. The fruit of a tree, in Bawean, which reaches a height of thirty feet, and when covered with its branches of deep red colored fruit, it presents a beautiful appearance : the fruit is milky, has an agreeable flavour, and some resemblance to the Sawo fruit.

BUA NANKA, MALAY. Fruit of Artocarpus integrifolia.

BUAH-PALA, MALAY. Nutmegs.

BUANSUAH. See Canis.

BUAYA, MALAY. Crocodile.

BUAYN, OR THUAYN, in L. 100° 7' E. and L. 21° 27' N.

BURALO, SING. Coral.

BUBALUS BUFFELUS, BLUM, GRAY.

Bos bubalus. Briss. Schleg Mull. *var* Sondaica buffelus. *Blum.*

Buffalo	ENG.	Karbo	MALAY.
Bhains, male	HIND.	Karbou	„
Mhains, female	„	Moonding	SUNDAN.

The buffalo inhabits Thibet, but is domesticated in India, the Indian Archipelago and southern Europe. It is the only indigenous ruminant of Ceylon. They are frequently albinos with pink eyes. They are trained to allow sportsmen to approach water fowl under their cover. The finest of the domesticated buffaloes of India are reared in the Hyderabad dominions, west of Nermul.

BUBALUS ARNA—*Hodgson.*

Bos Arnee, *Shaw.*

This, the Arnee Buffalo, is considered by Hodgson distinct from the Bubalus buffalus the Bhains and Mhains of India, but the propriety of its separation is more than doubtful. Arnee is a town in the Collectorate of Arcot. See Bos, Buffalo, Mammalia.

BUBBE-MARA, CAN. Calophyllum calaba. LINN.

BUBON ? Galbanum.

BUBO. A genus of birds of the tribe Nocturnæ, Family Strigidæ, Order Raptores or birds of prey. They are arranged in the

Sub-fam. Buboninæ, 5 gen. 12 sp. viz., 1 Nyctea : 4 Bubo : 2 Asio : 3 Scops : 3 Ketupa.

Bubo maximus. 'Eagle Owl' of Europe, Siberia, China, Asia Minor, Babylonia, Barberry ; Himalaya ? If so, very rare.

BUBORAREE, L. 69° 19' E. and L. 24° 5' N.

BUBROMA GUAZUMA. WILLD. Guazuma tomentosa—*Kunth.*

BUCCINATOR. See Crane.

BUCCINUM, a genus of Molluscs, many of which occur in S. E. Asia. See Dyes ; Mollusca.

BUBLFE, SINDH. Acacia farnesiana.—*Willd.*

BUBHAJIA. See Mishmi.

BUBHORA, Ruins, in L. 66° 40' E. and L. 24° 48' N.

BUBHOUR, in L. 76° 19' E. and L. 31° 24' N.

BUBLOUD, in L. 76° 36' E. and L. 17° 32' N.

BUCEPHALIA of Alexander, is supposed to have been on the site now occupied by the town of Jhelum.

BUCEROS. A genus of birds of the order Insessores or Perchers, sub order Picæ, and sub-family, Bucerotidæ, Nineteen species of the Buceros or hornbill are known in S. East Asia. The duty of incubation of the hornbills is restricted to the hen bird. The nest is formed in the hollow of a tall tree, into which the hen enters and the male plasters up the mouth of the hole, leaving only a small slit, through which he feeds his mate, who makes the nest with her own feathers, hatches the eggs and remains with the young till they are fledged. Captain Tickell saw the male of the Buceros cavatus build the female in by covering the hole in the tree where she incubates, with mud, leaving only room for her bill to protrude and receive food from his, &c.

The hornbill is frugivorous, and the natives assert that when endeavouring to detach a fruit, if the stem be too tough to be severed by its mandibles, the bird flings itself off the branch so as to add the weight of its body to the pressure of its beak. A hornbill, supposed to be B. pica, *Scopoli*, B. malabaricus *Jerdon*, abounds in Cuttack, and bears there the name of "Kuchila-Kai," or Kuchila-eater, from its partiality for the pulp of the fruit of the Strychnos nux vomica.

Captain Tickell met with a hornbill in Amherst which Mr. Blyth called B. Tickelli. He met with the birds from the plains up to an elevation of 3,500 or 4,000 ft. above the sea, but not beyond; and they appeared commonest on the easterly skirts of the range, keeping together in pairs or small parties of five and six, incessantly calling to each other in loud plaintive screams "whe-wheo, whe-wheyo," and when feeding, keeping up a low murmuring cackle like parrots. Their flight is smooth and regular like that of "Buceros pusaran," not in alternate flaps and sails like "B. cavatus, or albirostris," or "birostris," and it is performed at great elevations especially when they cross from top to top of the mountains. Keeping ever thus at immense heights, and being withal as quick-sighted and wary as the rest of the genus, it may be pronounced one of the most difficult birds in the world to be procured with a gun. It is, therefore, no matter of wonder, that, although large collections of birds have been made in the Tenasserim provinces, this hornbill has never hitherto formed part of them. Amongst the individuals he could see, but not shoot, some were apparently entirely black, and these may be the adult males. The wild Karens who lived nearest to those uninhabited forests knew nothing of the bird.

BUCEROS cassidex is the great hornbill of Celebes.—*Wallace. Journal Asiatic Society of Bengal, No. CCXLIX, No.* IV.—1855. *Description of a new species of Hornbill by Capt.* S. R. TICKELL, *Principal Asst. Commr., Tenasserim Provinces. Bl. As. Soc. Tr. p.* 274. *Tennent's Sketches of the Natural History of Ceylon, p.* 242-243.

BUCH, DUK. Calamus aromaticus.

BUCH, BENG. Zingiber zerumbet.

BUCH, DUK. Sweet Flag, Acorus calamus.

BUCHANAKA, SANS. Ground-nut: Arachis hypogæa.

BUCHANAN, Dr. Francis, who afterwards added the surname of Hamilton, a medical officer of the Indian army. He wrote a work on the fishes of the Ganges. In 1800 and 1801 made a "Journey from Madras through the countries of Mysore, Canara, and Malabar," under the orders of the Marquis of Wellesley, for the express purpose of investigating the state of agriculture, arts, and commerce, and his report was printed. He introduced into his Commentary upon Rheede's Hortus Malabaricus, published in the Linnean Society's Transactions, Vols. XIII, XIV and XV, descriptions of several new Peninsular species, Author of account of Nepaul. Edinburgh, 1819, 1 Vol.—Travels through Mysore, Canara, and Malabar. *Lond.* 1807, 3 Vols.—Geographical and Statistical description of Dinapore. *Calcutta,* 1833, 1 Vol.—Fishes of the Ganges. *Edin.* 1822.—Statistical account of Dinajpur. *Calcutta*: published as an Appendix to the Gleanings in Science.—See *Dr. Buist's Catalogue.*

BUCHANANIA ANGUSTIFOLIA.—*Roxb.*

Spondias simplicifolia.—*Rottl.*
Mangifera axillaris.—*Lam.*
Cambessedia.—*Kunth.*

This tree grows in the hills of the south of India, in the Adjunta jungles and is seen about Rangoon.—*Voigt. McClelland.*

BUCHANANIA LATIFOLIA.—*Roxb*; *W. & A.*

Chirongia sapida.—*Buch ?*
Spondias elliptica.—*Rottl.*

Piyala ?	BENG.	Panj	MAHR.
Thit-sai ?	BURM.	Chara	SANS.
Len-lwon	,,	Kaat mango	TAM.
Lumbo	,,	Moræda	,,
Noas kool	CAN.	Mowda	,,
Pia-Sal	GUZ.	Chara-chettu	TEL.
Pujal ?	HIND.	Chara pappu do	,,
Pyal	,,	Charu-mamidi	,,
Piar cheronji	HIND.	China moralli	,,
Chironji	,,	Jaru-mamidi	,,
Charooli of Bombay	,,	Sara-puppoo	,,
Char	MAHR.	Charo	URIA.
Dhan	,,		

This straight-growing handsome forest tree with fragrant flowers, is common for some distance west of the Jumna, in the lower hills. It grows in Ajmeer. In the Bombay Presidency, is found more inland than in the coast jungles. In Canara and Sunda, it is most frequent above the ghats, particularly north of Dandellee, and Dr. Gibson describes the wood as rather strong and tough, but seldom found squaring above four inches, or of thickness more than sufficient for posts. The tree abounds in Mysore and Cuddapah, and occurs in Cuttack where its useful wood is worked up generally into furniture, house doors and windows, presses, tables

&c. It requires to be polished, otherwise it stains, of a burnt sienna colour, any cloth brought into contact with it. In Ganjam and Gumsur it has an extreme height of 36 feet and a circumference of 3 feet, and the height from the ground to the intersection of the first branch is 15 feet. There, bullock yokes are sometimes made of the wood, though it is chiefly used for firewood. From these accounts, it would seem to be, in peninsular India, a rather hard, tough, strong and durable wood; but Dr. Brandis tells us that in Burmah it is a soft, light wood and not used: that a cubic foot weighs lbs. 36, that in a full grown tree on good soil the average length of the trunk is 20 feet and average girth measured at 6 feet from the ground is 6 feet and that it sells at 4 annas per cubic foot. Sp. Gr. 0·875.

It bears a fruit about the size of a small cherry, in long bunches, colour of a darkish purple: the kernels, or seeds, which are covered with a double shell, after being prepared by the natives, are sold in the bazaars of India, four or five pounds for a rupee; they possess the flavor of almonds, and are used as such by the native confectioners, the fruit is agreeable, and the seed, called Chironji, *Hind.* Charapuppoo, *Tam.*, has a very pleasant rich flavour. the fruit when ripe in May is gathered by the Bheels then soaked in water to soften the outer pulp, when it is washed and rubbed off by the hands: the little nut is then dried in the sun, and afterwards broken between a common chuckee or stone hand-mill, such as is used for grinding wheat: the kernels are then sifted and winnowed. This kernel of the Buchanania latifolia is much used in native confectionary. The oily kernel is roasted and eaten by the brahmins with milk, and is considered a great delicacy. The kernels of this tree are eaten by the natives, to promote fatness, they abound in a straw-colored, sweet tasted and limpid oil which is seldom extracted though a very fine oil might be expressed from the seed. Its bark is used by tanners. In hindu poetry, its handsome white flower furnishes a simile for pretty eyes, and is held to be sacred to Vishnu.—*Madras Exhibition, Dr. Irvine, Eng. Cyc., Drs. Gibson, Brandis, and Mason, Cal. Cat. of* 1862, *Voigt. Useful Plants, Flor. Andh. Powell, Handbook. Econ. Prod. Punjab, page* 570.

BUCHANANIA VARIEGATA ?

Kachnar, HIND.

A tree of Chota Nagpore, with hard, whitish yellow timber.—*Cal. Cat. Ex.* 1862.

BUCHAPATA, in Long. 83° 50′ E. and Lat. 18° 18′ N.

BUCHARIA, also called Little Bucharia, also Eastern Turkestan, bounded on the North by Mongolia, on the East by the Shami or Kobi desert, on the West by Kokan and Badakhshan, and on the South by the Tsung Lung or Kora Koram range of hills, which separates Little Bucharia from Little Tibet. Perhaps the term Eastern Turkestan should be alone retained. The inhabitants of the country, known in Europe by the name of little Bucharia, call themselves Turks. They speak the Turkish language, and profess the mahomedan religion. As to the other people of Asia, who inhabit the countries which extend northwards to the Russian frontiers, westwards to the Caspian Sea, and Southwards to Afghanistan,—the greater part are descendants of Turks and it would be more proper to give to all these countries, the general name of Turkestan dividing it in the following manner:—1st, Northern or Russian Turkestan, comprehending in it the three hordes of the Kirghis nation; 2ndly, Southern Turkestan, inhabited by the Khivan, Turkoman and Karakalpack and including also great Bucharia, Kokand, and Tashkend; 3rdly, Eastern Turkestan, comprising Little Bucharia, which is subject to China. At present the Chinese and Mantchoos call by the name of "hoei hoei," all the mahometan tribes who live under their dominion. This word, therefore, has ceased to designate a nation. As the Ouigour Hoei hou, called simply Hoei hoei under the Mongol dynasty of Yuan, were mahometans, this name is applied by the Chinese to all those of the same religion, in the same manner as the Russians are often called Greeks, because they are of the Greek church. The inhabitants of the towns of Little Bucharia are in part descendants of the ancient Ouigour or Hoei hou, and consequently Turks; in part Sarti, or Bucharians, who are scattered as merchants all over central Asia, and who are Persians. There are many of them at Peking, Hang tcheou fou, Canton, and other commercial cities of China. Their mother tongue is Persian, but they also speak the Oriental Turki, which is the general language of Turkistan, and the most diffused in little Bucharia. The Ouigour writing character was the original source of those still used by the Mongol, and Manchu, and was itself almost certainly derived from the old Syriac character through the Nestorians. The modern Tartar characters are written (and, it is presumed, read) in vertical lines from top to bottom of the page, the lines succeeding each other from left to right. What Ouigour meant with Mongol authors is doubtful, but the people and language so called by the Western Asiatics were Turkish. Captain Valikhanoff speaks of the language now in use at Kashgar as being Uigur, but it is not clear whether he means that this term is known to the natives.—*Russians in Cent. Asia, p.* 67. *Yule Cathay, I. p*

206. *Timkowski's Journey to Peking, Vol, I. pp.* 6,378-79.

BUCHARIAN RHUBARB. See Rhubarb.

BUCHGOTI, a rajput tribe in Jonpur and Gorukpur. They were formerly notorious for turbulence, part of them became mahomedans prior to Sekundar Lodi's rule. The Bilk-huria, the Rajwar, the Rajkumar are offshoots from the Buchgoti.—*Elliot.*

BUCHNAG, Hind. The root of Gloriosa superba: also, in Bombay, as Vutsunab, of Lagenandra toxcaria.

BUCHSBAUM, Ger. Box wood.

BUCHU, Beng. The leaves of species of Barosma, used in medicine.

BUCIOS ZIMBOS, Sp. Cowries.

BUCKCHI, Hind. Fleabane.

BUCKLALL, Hing ? A close straight-grained wood, light, tough and strong; grows in the Santhal jungles from Raneebahal to Hasdiha or about forty miles, but not very plentiful. Is suitable for timber bridges.—*Cal. Engineer's Journal,* 1860.

BUCKLANDIA, *Species.* A magnificent tree of the Sikkim Himalaya, and one of the most beautiful evergreens of Sikkim. One seen by Dr. Hooker had a trunk twenty-one feet, seven inches in girth, at five feet from the ground, and was unbranched for forty feet. Ferns and the beautiful air-plant *Cœlogyne Wallichii* grew on its branches, with other orchids, while *Clematis* and *Stauntonia* climbed the trunk. This superb tree is a great desideratum in English gardens; Dr. Hooker believes it would thrive in the warm west of England. Its wood is brown, and not valuable as timber, but the thick, bright, glossy, evergreen foliage is particularly handsome, and so is the form of the crown. It is also interesting in a physiological point of view, from the woody fibre being studded with those curious microscopic discs so characteristic of pines, and which when occurring on fossil wood are considered conclusive as to the natural family to which such woods belong. Geologists should bear in mind that not only does the whole natural order to which *Bucklandia* belongs, possess this character, but also various species of *Magnoliaceœ* found in India, Australia, Borneo, and South America.—*Hooker Him. Jour. Vol.* II. *page* 185.

BUCKLANDIA POPULNEA, *R. Brown. Griff.* A large tree of the Khassia mountains from Cherra Poonjee to Saruream. Flowers small and greenish.—*Voigt.* 53.

BUCKLER, Eng. The buckler or shield is the tray in which gifts are presented by the Rajpoots.—*Tod's Rajasthan, Vol. I. p.* 474.

BUCKLET-UL-MALIC, Arab Fumaria officinalis. Fumitory.

BUCKLAT-UL-MUBARIK, Arab. Portulaca quadrifida.

BUCKNAH, in Long. 85° 58′ E. and Lat. 24° 9′ N.

BUCKOREE, in L. 69° 22′ E. and 22° 3′ N.

BUCKOULY, in L. 82° 58′ E. and L. 26° 33′ N.

BUCKRA, in L. 82° 52′ E. and L. 26° 53′ N.

BUCKRAH, in L. 87° 25′ E. and L. 25° 49′ N.

BUCKRAM, Eng.

Bougran	Fr.	Tela collata-o-gommata	It.
Schettre	Ger.		
Steife	,,	Kleanka	Rus.
Leinwand	,,	Bucaran	Sp.

—*McCulloch.*

BUCKREAH, in L. 69° 54′ E. and L. 23° 21′ N.

BUCKSERRA, in L. 71° 14′ L and L. 21° 28′

BUCKSERRA, in L. 70° 12′ E. and L. 21° 25′ N.

BUCKTHORN. Euphorbia tithymaloides.

BUCKUM, Pers. Pterocarpus santalinus.

BUCKUMPTA, in L. 91° 8′ E. and L. 23° 29′ N.

BUCKWHEAT, Eng. Fagopyrum.

Blé Sarrasin	Fr.	Phulan of Chenab	Sut.
Blé Noir	,,	Trumba ... do	Kashmir.
Buchweizen	Ger.	Kala ... do	,,
Heide Korn	,,	Bras ... do	Sut.
Grano Saraceno	It.	Bres ... do	Chenab.
Faggina	,,	Karma bres do	,,
Fraina	,,	Trao ... do	Ladak.
Fagopyrum emarginatum	Lat.	Rjao ... do	,,
,, esculentum	,,	Katu ... do	Ravi.
Darau of Chenab	Pan.	,, trao .. do	Piti.
Bapu Drawodo	,,	Tsabri ... do	Sut.
Obal do	Ravi.	Tatarca	Pol.
Ogal ... do	Sut.	Gryka	,,
Ulgo ... do	,,	Pohanca	,,
Phapar ... do	,,	Gretscha	Rus.
Phapara ... do	Ravi.	Trigo	Span.
		Trigo Negro	,,

The grain of Fagopyrum emarginatum *Meisn,* and F. esculentum, Mœnch, are both known as buck wheat, and are cultivated abundantly in Central Asia and the Himalaya, at about six thousand feet on the Jhelum, five to ten thousand on the Chenab and on the Ravi, eight to nine thousand. Dr. Thomson saw it 13,000 feet in Zanskar, Drs. Stewart and Cayley at 13,000 and 14,000 feet in Ladak. Bears are more fond of this when growing than of any other food, the leaves are much used in Lahul as a potherb, in the hills, the buck wheat grain is considered inferior to millet, but much is taken to the plains, where it used by the hindus on their "bart" or fast days, it being then "phalahar", or lawful. It is believed to be a native of Central Asia, and it is supposed to have been first brought to Europe in the early part of the twelfth century, at the time of the crusades for the recovery of Syria from the dominion of the Saracens. The cultivation of buck-wheat, in Europe in one or other of its species, is principally confined to Great Britain, France, Switzerland, Italy, Netherlands, Germany, Sweden, Russia, China, Tartary, Japan, Algeria, Canada, and the middle and northern portions of the United States. In America from 30 to 45 bushels per acre may be considered as an average yield in favourable seasons and situations, but 60 or more bushels are not unfrequently produced. In Britain the produce varies from 2 to 4 quarters per acre. The quantity of seeds sown is 5 to 8 pecks the acre. According to the census returns of 1840, the annual quantity raised in the United States was 7,291,743 bushels, of 1850, 8,950,916 bushels. The average annual imports of buck-wheat into Britain have not exceeded 1,000 quarters, until 1852, when they reached 8,085 quarters. A small quantity of the meal is also annually imported.—*Simmonds, p.* 259. *Dr. J. L Stewart. McCulloch.*

BUD. See Buddha.

BUD, PERS, HIND. Existence ; Bud-o-basb, livelihood-Bud-nabood, life and death.

BUD, HIND. Malacochæte pectinata.

BUDA. In hindu astronomy, the planet Mercury.

BUDADA, SINGH. Wednesday.

BUDABEER, in L. 71° 42′ E. and L. 34° 1′ N.

BUDADANEDI, TEL. Careya arborea, *R.*

BUDADI GUMADI, TEL. Benincasa cerifera.

BUDAGA, the most numerous tribe on the Neilgherry hills. They state that about 400 years ago, their ancestors came from the Malusal hills sixty miles South East of the town of Mysore. Their name is supposed to be a modification of the Canarese word, Vuddaca, or North, and they undoubtedly speak an ancient but organized dialect of the Canarese, but whether famine or persecution drove them from their own country is not known. They are of fair complexion and handsome.

In 1825, the men were 1,665, women 1,696, boys 1,151, girls 632=5,147, inhabited villages 35, houses 1,651.

In 1847, the population of the Badagas was 6,569, distributed over 227 villages.

In 1867, it is said to comprise 17,778 souls, distributed over 4,071 houses.

They have the usual elongated head of the peninsular hindu races. The average of 25, men, of 33·8 years of age, was 66·7 inches, and their weight lbs. 110·76.

The average of 25 women, of 27·68 years, were of height 58·51 inches, and weight lbs. 92. They have the usual asiatic features with a feminine caste. They are agricultural, and when they arrived they acknowledged the proprietorship of the Toda as prior occupant races to whom they promised a landtax of one-sixth of the produce which they still continue to pay, though with occasional demurring. The Toda race call them "Mav" or father-in-law. Both men and women work in the fields, but of late years, a large number of men find employment as labourers and artizans. The other hill tribes on the hills live in isolated communities but the Budaga dwell in villages on a rising ground, in streets running in parallel lines, in thatched houses built of stone and mud, and divided into separate compartments with a double tier of lofts and with a wide terrace in front as a drying, threshing and winnowing floor. The door way, 43 inches high and 26½ broad is their only opening. The cattle are penned in an adjoining cow house or shed. One writer says they arrange themselves as Aravar, Lingaet, Odykary and Torayen, Dr. Short says they have eighteen sects or castes, of whom he names the Woodearu and Haruvaru as priestly castes, the Hattara, Anearu, Mari, Kasturi, Dumah, Gonaja and Manika as ryots and labourers ; the Vellaler, a race from the plains, the Kumbararu or pot-maker ; Kongaru and Lingadhari who are of the Lingaet sect ; the Adikari ; the Kanakaru or accountant ; the Chittre outcastes from the Woodearu Belli, descendants of silversmiths ; Koonde dwelling amongst the Koonda hills, and the Torea, the lowest of all the 18 castes. The arrangements on betrothal are made by the parents, but the marriage only takes place when grown up, Polyandry does not prevail but divorce is easily obtained. The men dress like the people of the plains. The women look like mummies. They wrap a cloth round their bodies from below their arms to their hips, and fasten it with a cord below their arms and around their hips, the arms and shoulders and their legs below the knees are bare. A scarf goes round the head and is let fall behind. The women are of domestic habits, and kind and affectionate mothers. They are simple, modest and retiring. They seem now to be following three forms of the hindu religions the Saiva, the Vira Saiva and the Vaishnava. But the increased intercourse with the plains may have taught them this, as formerly they claimed as their deity, "Hettee-du," an old man, and "Hereardu, who, they said, conducted them to the mountains. But they have numerous deities. A chief deity is in Rungasawmy peak, where men of the Irular tribe officiate as priests and offerings of ghi and fruits are made ; another deity is on a droog near the village of Hollikul where a Badaga priest, officiates and there are other male and female gods. Many are comparatively wealthy. They can neither read nor write—they are timid and superstitious haunted with a dread of evil spirits and are deceitful, ungrateful and false. They are in perpetual fear of the Korumbar, to whose sorcery and witchcraft they attribute all accidents and ailments which befal themselves, their cattle and crops and in their delusions they have killed Korumbars and suffered from it : Nevertheless they get the Korumbar to officiate as priests at all social ceremonial occasions. They both burn and bury their dead.—*Drs. Baikie, Latham, Short.*

BUDAISHA in L. 74° 37′ E. and L. 24° 35′ N.

BUDAMA, Tel. Cucumis.—*L.*

BUDAMARA, (or *Chipudi.*) Tel. Grewia salvifolia.—*Heyne.*

BUDAMI, Hind. Terminalia catapa.

BUD-ANAR, Hindi of Kangra, Marlea begonifolia. See Memoika.

BUDAR, Hind. Picea Webbiana.

BUDARENI, Tel. Capparis divaricata. *Lam.* 889.

BUDAYOON in L. 79° 8′ E. and L. 28° 3′ N.

BUDDA BASARA or PAMBUDDA, Tel. Physalis Peruviana, L. also Cardiospermum halicacabum. Both have bladdery capsules.

BUDDA KAKARA or ULLENA TIGE, Tel. Cardiospermum halicacabum, *L.*

BUDDAM, Guz. Amygdalus communis.

BUDDA-NEDI, Tel. Careya arborea.

BUDDA TUMMA, Tel. Acacia Roxburghii, *W. & A.* 856.

BUDDERI, Sans. Zyzyphus jujuba.

BUDDAH MANJI, also called Manjiharam, a village deity of the Sonthal, a stone buried in the centre of the village in an open shed. The shed is called Buddhathan. See Ho ; India, p. 328 ; Sonthal.

BUDH in the hindu astronomy, the planet mercury, and it is deemed fortunate to be born under this planet. Budh presides over Wednesday, Budhwar, dies Mercurii : in one of the Zodiacs, he is seated on a carpet, holding in his hands a sceptre and a lotus ; in another, he is shown riding on an eagle, and elsewhere he is described as sitting in a car drawn by lions ; and by Ward as sitting on a lion.

BUDH. An ancestor of a branch of the great hindu people of a time prior to authentic history. He is traced up to Brahma from whom he descends through Atri, Samudra, Chandra or Soma, and Vrishpati. Budh is said to have married Ila, daughter of Ikshwaku, and the descendants of this union were, in succession, Pururava; Ayu or Yaou ; Nohas or Nohus, and Yayat. Ayu or Yaou is claimed by the Tartar and Chinese genealogists as their great progenitor, and from Yayat sprung three great lines, the Yadu, Puru and Oora or Oorvasa, from each of whom came many dynasties ruling on the Indus, in Hindustan, Assam, Ava and China. The great Hya was a branch of the Yadu and five members of it formed Panchalika or Panchaldesa and the seed of Bajeswa occupied all the countries on the Indus. Of the three lines, the Yadu, Puru and Oora, the Yadu became the most illustrious. The descendants of Budh and Ila were known as the Chandravansa, Somavansa, and Induvansa, all of these meaning the Lunar race, but the fame of the Yadu eclipsed the prior designations, and throughout India the Lunar race came to be styled Yaduvansa. The Yadu held territories in Hindustan, about Allahabad, but, seemingly, in small republican States, some of which were staked and lost at play. The relatives then fought for dominion, for eighteen days, on the field of Kuru Khet. There was no battle of armies, but a series of single combats with treacherous, cruel, surprises during which nearly all of the Yadu fell, and, at the close, of those remaining several, amongst whom Kristna was one, emigrated. The story is told in the Mahabharata. After the combats, the Yadu seem to have left the Ganges, and to have been expelled from Dwarica, to have crossed the Indus, passed Zabulisthan and founded Gajni and Samarcand, but to have swept back on the Indus into Guzerat and the Indian desert from which they expelled the Langaha, Johya, Mohila, &c. and founded successfully Tannote, Derrawul and Jeysulmir. They are now known as the Bhatti of Jeysulmir, the Jharijah of Cutch Bhooj, the tribes occupying Kerouli and Subbulghur on the Chumbul and the Sumaitcha on the Chumbul. The great Tuar tribe are also said to have been of Yadu origin. The Hya also was a branch of the Yadu, some of whom formed Panchaldesa or Panchalika, and the seed of Bajeswa at one time occupied all the countries on the Indus. The Bhatti and Jharijah trace their descent from Budh and Krishna, and they may be said to occupy the Indian desert from the Sutlej to the ocean. In the above view, Budh was a descendant of the first man, Bramha, and Budh seems to have been the first emigrant from Saca-dwipa or Scythia, into Hindustan, viz. about B. C. 2,400, to have been a contemporary of Ikshwaku and to have married his daughter Ila. Between Budh and Krishna was a period of 1,200 years. But his descendants deified Budh and in hindu mythology he is described as of Lunar origin, the son of Soma or Chandra or Indu, the moon, by Rohini. The date of the apotheosis of Budh is not known ; there seem to have been 56 clans of the Indu who were distinguished by names of animals, takshac, the serpent; aswa, the horse; sassu, the hare; lomri or nomri the fox, &c. &c, and the emblem of Budh was the serpent. Prior to the deification of Krishna, Budh was worshipped by all the Yadu as the great ancestor (Pitriswara) of the lunar race. The principal shrine of Budh was at Dwarica, where he still receives adoration as Budha Trivikrama. But by the deification of Krishna whose emblem was the eagle, Krishna's mysteries superseded the simpler worship of Budh. The worship of Bal, or the sun, as Bal-nath, and of the moon, as that of Budh, seem to have co-existed, and an amalgamation had occurred, as the serpent was made to twine round the lingam as at the shrine of Eklinga. Colonel Tod is of opinion that the original worship of Budh was monotheistic, and that prior to the rise of Vishnuism the three idolatrous classes of Hindustan were the adorers of Surya and the descendants of Budh who preserved the serpent sign of their race, and Krishna's followers who adopted the eagle.—*Tod's Rajasthan, Vol.* I. *p.* 533-536.

BUDDHA. This title is usually employed to designate an eminent religious teacher from whose doctrines have sprung up the various forms of the buddhist religion which are found prevailing in Ceylon, in Nepal, in Tibet, Tartary, Mongolia, in Burmah, Siam, Anam, Cambodia and to a considerable extent in China, Japan, Formosa and Corea, amongst 222,000,000 of people. Its votaries far outnumber those of all other creeds, except the christian, and they form one fourth of the whole human race. The christians number about 270 millions; the Buddhists about 222 millions; who are distributed as follows:—China, 170 millions Japan, 25; Anam 14; Siam, 3; Ava, 8; Nepal, 1; and Ceylon, 1; total, 222 millions.

The Reverend Mr. Hardy quotes a German estimate of the buddhists of our day at 369 millions. Major Cunningham however has 222 millions, and is probably nearly right. But he has omitted Tibet and Mongolia, or has included them in his estimate for China, which is 170 millions.

Buddha, in Sanscrit means wisdom, supreme intelligence, and the words Buddha, Booda, Butta, and others of nearly similar sound, are mere varieties, in different parts of India, in orthography and pronunciation; and so, perhaps, is the Bud, or Wud, of the ancient pagan Arabs; Pout, in Siam; Pott, or Poti, in Tibet; and But, in Cochin China. The Chinese having no B, or D, in their alphabet, and their language being monosyllabic, they have further softened this term into Fo, Fo-e, or Fo-Hi; they also call him Xa-ka, a variation perhaps of the Indian Sakya.

Taking the term in the simple sense of a religious teacher, it is generally admitted that there had been many a Buddha prior to the advent of Sakya-Sinha to whom the term is now restricted by the people of Europe. Sakya Sinha declares he was the twenty-fifth Buddha and says, of another, "Bhagava Metteyo is yet to come." Colonel Tod is of opinion (Vol. I p. 90.) that there had been four distinguished Buddhas or wise men, teachers in India, of a monotheism which they brought from Central Asia, with their science and the arrow or nail-headed written character. The first Boodha he considers was Budh the parent of the Lunar race, B. C. 2,250. The second (twenty-second of the Jains), Naimnath, B. C. 1120. The third (twenty-third of the Jains), Parswanath, B. C. 650. The fourth (twenty-fourth of the Jains), Mahavira, B. C. 533.

The term is now usually confined to Sakya Sinha, a Kshatrya, son of Suddho-dana, king of Magadha. He is said to have been born B. C. 598, at Kapala vasta, the chief town of a kingdom of the same name, lying to the north of the present Oudh, at the foot of the mountains of Nepaul. His mother was Maya-Devi, daughter of king Suppra-Buddha, also a Sakia, and her son had the name of Sakya from that of his clain. He married Gopa, also of the Sakya race, and they had one son. Sakya Sinha was also called Gautama, from the name of his clan or "Got," and he afterwards had many attributive appellations given to him. One of these is Bagawa or Bhagawat, a sanscrit word meaning most meritorious or saintly: also, Sakya Muni, the atoner of the house of Sakya or the hermit Sakya; also, Tathagata, thus gone; and Maha Sramana the great priest: also, Saudho-Dani. From his father Suddhodana; Arka-Bàndhu or Kinsman of the sun; Maya devi Suta or child of Maya; he is also called Buddha Kapala from his native town: also Gautama Buddha or Buddha Gautama, the sage Gautama; and he called himself Sakya Gautama; his secular name was Siddharta; or he by whom the end is accomplished, but Bud-d'ha, a superior intelligence or teacher, is the ordinary name in use.

He is the But of the mahomedans; Buddas and Sarmanes, of the Greeks; Mercurius Mayæ filius, of Horace; Bud or Wud of the Pagan Arabs; Woden of the Scandinavians; Toth, of the Egyptians; Fo, Foe; or Fo-hi or Fo-to and Sa-ka of the Chinese; Pout and Sommono-kodam, of Siam; Godama of Ava; Kshaka or Xa-Ka of Japan. Chakahout of Tonquin China. Chom-dan-das and Sangs-gyas of Tibet.

It has never been clearly explained why he, the son of a king, abandoned his home and adopted an ascetic life. But it is supposed that he may have been incited thereto by the Sakya having been involved in war and sustained great losses. At the age of 29, however, he sought retirement from the world, and he began to preach when 35 years of age. It is not believed that his doctrines were wholly new, but that he merely improved on beliefs already existing. As the champion of religious liberty and social equality, Sakya Muni attacked the brahmans in their weakest and most vulnerable points; in their impious assumption of all mediation between man and his Maker, and in their arrogant claims to hereditary priesthood. And his boldness was successful; for before the end of his career he had seen his principles zealously and successfully promulgated by his brahman disciples Sariputra, Mangalyana, Ananda, and Kasyapa, as well as by the vaisya Katyayana and the sudra Upali. At his death in B. C. 543, his doctrines had been firmly established, and the divinity of his mission was fully recognized by the eager claims preferred by kings and rulers for relics of their teacher. His ashes were distributed amongst eight cities, and the charcoal from the funeral pile was given to a ninth, but the spread of his influence is more clearly shown by the mention of the numerous cities where he lived and preached. Amongst these are Champa and Rajagriha on the east, Sravasti and Kausambi on the west. In the short space of twenty-five years, this wonderful man succeeded in establishing his doctrines over the fairest districts of the Ganges, from the neighbourhood of Agra and Cawnpore to the delta. This success was perhaps as much due to the early corrupt state of brahmanism, as to the greater purity and more practical wisdom of his own system. His success was also partly due to the politic admission of women, who, even in the east, have always possessed much secret, though not apparent, influence over mankind. To most of them the words of Buddha preached comfort in this life, and hope in the next. To the young widow, the neglected wife, and the cast off mistress, the Buddhist teachers offered an honourable career as nuns. Instead of the daily indignities to which they were subjected by grasping relatives, treacherous husbands, and faithless lords, the most miserable of the sex could now share, although still in an humble way, with the general respect accorded to all who had taken the vows. The Bhikshuni were indebted to Ananda's intercession with Sakya for their admission into the ranks of the Buddha community, and (See Csoma's Analysis of the Dulva, Res. As. Soc. Bengal, vol. xx. p. 90; also *Fo-kwe-ki*, chap xvi. p. 101) in token of their gratitude the *Pi-khieu-ni*, or Bhikashuni, at Mathura, paid their devotions chiefly to the stupa of Anan (Ananda), because he had besought Buddha that he would grant to women the liberty of embracing ascetic life. The observances required from the nuns may be found in note 23, chap. xvi. of the *Fo-kwe ki*.

Though thus enrolled, their position was still humble. The female ascetic even of a hundred years of age was bound to respect a monk even in the first year of his ordination.

Buddhism made a great start in the time of king Asoka and religious buddhist counsellors assembled at Pataliputra with Asoka. After nine months consultation they sent out nine teachers, viz., one to Cashmir and Peshawar, a second to the country of the Nerbuddah: a third to Mewar and Bundi. A fourth to northern Sind. A fifth, to the Mahratta country. A sixth to the Greek Province of Kabul, Arachosia. A seventh to the country of the Himalaya; the eighth to Ava or Siam, that is the "golden land," the aurea regio or the aurea cherşonesus, and the ninth to Lanka or Ceylon.

Some circumstances of which we are uninformed must have prepared these regions for the reception of the ascetic doctrines of Sakya muni. It is known that buddhism was introduced at the Court of Ming-ti, Emperor of China, in A. D. 65; into Java in A. D. 24 to 57: into Kaoli, (Corea) in A. D. 372; into Pe-tsi, in Corea in A. D. 384; into Tibet, under Hla-ta To-ri in A. D. 407; into Sin lo or Sinra (in Corea) A. D. 528. in 552 into Japan: and, in 632, under Srong dbzam gampo, Buddhism was introduced into Tibet generally.

Buddhism has been examined by Hodgson, Cunningham, Yule and Czoma Korosi in India; by Pallas, Schmidt, Burnouf, Muller, Bunsen and Wassiljew of Europe, by Turnour, Gogerly and Spence Hardy of Ceylon; by Phayre, Mason, Lowe, Bigandet and Bastian of Burmah, and by Legge of China and there has been much discussion as to the nature of the doctrines which Sakya preached. There is no doubt that he was an ascetic for he left his wife and family and preached and inculcated asceticism; and, however greatly his followers may now vary in their belief, it is a fundamental doctrine with all of them that existence is an evil, for birth originates sorrow, pain, decay, and death. Whether he believed in a Supreme Being has been questioned. Mr. Hodgson describes his belief as "Monastic asceticism in morals and philosophical scepticism in religion." Bunsen considers that Sakya the hermit, of all founders of religions at once stands the nearest to, and the farthest from, Jesus of Nazareth, the Christ. The farthest, inasmuch as he renounces in despair the actual world which Jesus purposes to raise to Godlike purity; but the nearest, by virtue of the width and humanity of his conceptions of God, and the wide diffusion which they have obtained. This view was not held by the men of his own day., who styled him An-Iswara, the lordless one, meaning that he taught an absolutely atheistic nihilism, and Burnouf considered the doctrine of Buddha to be atheistic and materialistic, in his teaching that existence is a burthen and that annihilation is the highest happiness which the soul can strive after. The great truth of the father-hood of God is lacking in Buddhas teaching. According to Bunsen his creed introduced or revived civilization and softened manners amongst millions. (*God in Hist. Vol. p.* 345.) Bunsen further adds (*Ibid, p.* 327) that when buddhism arose, the brahman priesthood entered on a sanguinary persecution of its adherents, issuing in a war of extermination, for neither the Vedanta nor Sankhya philosophy had interfered with the absolute authority and exclusive privileges of the priesthood but had left the observances and sacred things intact; but Buddha had attacked all of these ; impugned the Brahmanic system and authority and did away with their external religious worship. He opposed the practice of animal sacrifices and, instead, held to penance and a variety of severe observances.

Buddhism triumphed throughout India from the time of Asoca B. C. 255 up till the 5th century of the present era, trampling upon the whole ceremonial of brahmanism, with all its sacrifices, penances and castes, and asserting the paramount necessity for purity of mind and body and a more elevated moral rule. Sacrifices of all kinds were especially excluded from the buddhist ritual, the offerings of flowers to Buddhas being alone permitted. About the year A. D. 800, there arose a great brahminical revival, which has continued up to the present day, but buddhism has left its influence ; the great sacrifices of antiquity have never been revived, the Homa and Payasa or ghi and food sacrifices are exclusively offered by the vaishnava sectarians, even by most of the saivava, and the sacrificing of buffaloes, goats and fowls is chiefly practised amongst the uneducated sudra and non-Aryan races, to Durga, Kali, or the Earth under the form of the various local deities. The vaishnava who look for the coming of a ninth avatar, were inclined to regard Sakya as the prophesied incarnation but when buddhism was seated on the throne of Magadha, and the old vaishnava sect was persecuted, they fell away from buddhism and have ever since been apart —even more tender of animal life than any buddhist, but in other doctrines dissimilar. Even before the decease of Sakya,—Sinha, however, schisms had arisen amongst his followers in India. Ananda had been with him from the first, and to him Buddha had referred his disciples as the depository of what he himself had said. Nevertheless, so rapidly had the views of Buddha been departed from that Ananda was excluded from the deliberations of the first buddhist councils as an unbeliever, and only re-admitted when he had submitted to their views.—(*Bunsen, God in Hist. Vol. I. p.* 341-2.)

Eighteen heresies are deplored in the Mahawanso, within two centuries of Sakya's death and four distinct sects, each rejoicing in the name of buddhists, are still to be traced amongst the remnants of his worshippers in Hindustan. In its migrations to other countries since its violent dispersion by the brahmans about the eighth century, buddhism has assumed and exhibited itself in a variety of shapes. At the present day, its doctrines as cherished among the Jainas of Guzerat and Rajputana, differ widely from its mysteries, as administered by the Lama of Thibet, and both are equally distinct from the metaphysical abstractions propounded by the monks of Nepal. Its observances in Jepan have undergone a still more striking alteration from their vicinity to the Sintoo sect, and, in China, they have been similarly modified in their contact with the rationalism of Lao-tsen and the social demonology of the Confucians. But in each and all, the distinction is rather in degree that in essence and the general concurrence is unbroken in all the grand essentials of the system. (*Ten. Ceyl. Vol. p.* 527) Sakya Muni discountenanced the philosophic views of the brahmans, but did not deny the authority of the Vedas. Neverthless, three marches from Jeypore, on the road to Delhi, the town of Babra has one of the edicts of Asoka on a block of stone or rock on a hill, in old Pali and of date B. C. 309. It is in the oldest Lat character. It differs somewhat in style and language from the pillar and rock edicts. The subject is the buddhist commandment, forbidding the sacrifice of fourfooted animals. The Vedas are alluded to, but though not named, are condemned as, " mean, and false in their doctrine, and not to be obeyed." The scriptures of the Muni (which must be the Vedas) are spoken of as directing blood-offerings and the sacrifice of animals. Priest and priestesses, religious men and religious women, amongst the buddhists, are commanded to obey the edict, and bear it in their hearts.—(*Vol.* IX., *p.* 617.)

The valley of the Ganges was the cradle of buddhism ; which, from its rise in the sixth century before Christ, gradually spread over the whole of India. It was extended by Asoka to Kashmir and Kabul shortly after Alexander's invasion. The fourth buddhist council was held under Kanishka, prince of Kashmir B. C. 150; it extended into Kabul, into Bamian in ancient Bactria a district of Persia under Darius; traces of it appear through Mongolia and Tibet; and it was introduced into China by five hundred Kashmirian missionaries, in A. D. 65 : through India it extended into the peninsula and Ceylon, into Nepal, Burmah, Assam, Siam, the islands of Formosa and Japan ; and, except in India where it arose, in Kabul, Bactria, Bamian and Cashmir, it still flourishes in these countries.

Buddha died B. C. 543, and buddhism was in India only a struggling lingering sect, till the time of Asoka whose edicts B. C. 255 remain engraved on rocks. In the inscriptions of Asoka, buddhism appears as a system of pure abstract morality, no trace being exhibited of the worship of Buddha himself, or of the serpent or tree. About the beginning of the christian era, a Naga or Turanian revelation seems to have become incorporated with it. It had, at this time, fallen into a state of decadence and was represented by no fewer than eighteen different sects. The buddhist school of this time was known as the Hinayana. At this time Nag-arjuna appeared. The sayings of Sakya Muni had been, during his life-time, recorded by the Nagas, from whom Nag-arjuna obtained the documents and he proclaimed them. This modification of buddhism must however have progressed slowly, as will be now shown.

The gate ways of the Sanchi Tope belong to the first half of the first century of the christian era, and though subsequent to the Naga revelation the sculpture scarcely indicates its existence. Buddha does not appear on the Sanchi sculptures as an object of worship. The serpent is there, but rare. The dagoba or depository of the relics of saints is there, as also are the tree, the wheel and other emblems, and, on the whole, the sculptures on the Sanchi tope may illustrate the Hinayana school of buddhism, at the period when other doctrines were about to be introduced. The Amravati sculptures again belong to a period 300 years later than that of Sanchi, and in them the new school ofMahayana buddhism may be studied. In these, Buddha is an object of worship, but the serpent is his co-equal. The dagoba, tree and wheel are reverenced and the sculptures contain all the legends of the later books, though in a purer form. Hindoos, Dasyas and other men, women, and animals, especially monkeys, appear in the sculptures worshipping the serpent and other gods. The serpents are all divine, five and seven headed, and representations are numerous of the Naga angelic orders; the female Naga, with one serpent only springing from the back, the male Naga with three.

The Amravati sculptures, again, belong to a period three hundred years later than those of Sanchi, and the topes illustrate the faith as at their dates. In the Amravati sculptures are tonsured priests and other signs of a clerical order segregated from the laity and of an established ritual. Sanchi is illustrative of the Hinayana buddhist philosophy, 500 years before the oldest buddhist book, and Amravati illustrates the Mahayana philosophy 600 years after its promulgation.

Buddha Ghosa lived about A. D. 410 nearly 1,000 years after Sakya Muni (A. D. 543 B. C.) and the frescoes of the caves of Adjunta illustrate a period 300 years later than the Amravati tope, and belonging to the time immediately preceding the decline of buddhism in India. The Lalita Vistara or life of Buddha in its present form was compiled 1,400 years after he died.

In A. D. 400, when Fa Hian visited India, buddhism was still the dominant religion, but the Vaishnava sect were already rising into consequence. In the middle of the seventh century, although the pilgrim Hwán Thsang found numerous temples of the Saiva sect whose doctrines had been embraced by Skanda Gupta and the latter princes of Patalipura, yet buddhism was still the prevailing religion of the people. But the faith of Sakya was evidently on the decline, and though it lingered about the holy cites of Benares and Gaya for two or three centuries later it was no longer the honoured religion of kings and princes, protected by the strong arm of power, but the persecuted heresy of a weaker party, who were forced to hide their images under ground, and were ultimately expelled from their monasteries by fire. In 1835, Major Cunningham excavated numerous buddhist images at Sarnáth, near Benares, all of which had evidently been purposely hidden under ground. He found quantities of ashes also and there could be no doubt that the buildings had been destroyed by fire, and Major Kittoe, who subsequently made further excavations was of the same opinion.

Amongst the Singhalese buddhists, the term buddha is understood to indicate beings who appear in the world at intervals, and are able to teach men the way to attain nirvana (Hardy) and they recognise Anomadassa as a Buddha prior to Gotama (*Hardy*, *p.* 433.) Their literature is in Pali, and the Dipavansa contains a history of buddhism in that island which breaks off with the death of Mahasena A. D. 302. The Mahawansa was compiled by Mahawana who lived about A. D. 500; it was brought down to the eighteenth century by successive writers and was translated by the Hon'ble G. Turnour of the Ceylon Civil Service.

The sacred canon of the buddhists now extant is called the Tri-pitaka, *i. e.* the three baskets. The first basket contains all that has reference to Vinaya or morality, or discipline. The second contains the Sutra or discourses of Buddha: the third includes all works treating of dogmatic philosophy or metaphysics. The first and second each contain five separate works. The second is generally known by the name of Dharma or law; and it has become usual to apply to the third basket, which contains seven separate works, the term Abhidharma or bye-law. The Sutra are ascribed to Sakya Muni: they consist of ethical and philosophical dialogues by Sakya and they make mention of the gods Narayan, Jonardhan, Shib, Brahma, Petomah, Borun (Vorun) and Songkar. Other names of Shib, Kubir, Sokr or Vasob, and Vissoo Kormo. (*Cal. Rev.*) Mahinda, son of Asoka is supposed to have brought the Attha-katta, ancient commentaries in Pali, to Ceylon, and to have translated them into Singhalese which Buddha ghosa, about A. D. 430 retranslated into Pali. According to another account, the doctrines were first reduced to writing by the Ceylon priests, during the reign of King Vartagamani 88-76 B. C. and by a synod assembled 10-40 A. D. by the Turushka king Kamshka. For the former the language used was the vernacular, from which in the 5th century it was translated into Pali; for the latter, Sanscrit. Hardy in his Eastern monachism has discussed the views held of Buddha in Ceylon. The changes made must have been very early, for eighteen heresies are deplored in the Mahawanso within two centuries from his death. In Ceylon, this faith has not been subjected to much persecution. In the 16th century, the Tamul invaders made every effort to destroy the buddhist books, but the priests, subsequently, sent a mission to Siam, and properly ordained priests were imported from Burmah. By the 18th century, buddhism had regained its ascendancy. The priests latterly have been actively diffusing a knowledge of their creed. They have printing presses from which tracts, pamphlets and serials issue in great numbers. They present some new arguments and inferences but the defiant and blasphemous expressions which they contain against the sacred name of Jehovah, are probably the most awful ever framed in human language.

In Ceylon is a foot mark on Adam's peak which has been the object of pilgrimage for ages, which buddhists ascribe to Buddha, but mahomedans to Adam. There are models of feet in different parts of the island. This is the Adam's foot of the mahomedans.—*(Yule II.* 359, 368.*)*

The tooth of Buddha, the Dalada, *Singh.* Dhata Dhata, *Hind*, is greatly reverenced. There are, in Ceylon, statues of Buddha of great height. One of Buddha near Mehintala. is 70 feet high, and one of Gotama rajah at Carculla is 38 feet. At Anarajpoora, in Ceylon, are several buddhist Dehgopas or Dagobas, the heights of which vary. They were built at from B. C. 307 to A. D. 276.

There was a pepal tree at Buddha Gaya, a shoot from which, shown as the Bo-tree, has been cherished at Anarajapura for twenty centuries and in the court yard of every vihara and temple of Ceylon, trees are preserved as objects of veneration. A system of caste was introduced by king Vijaio amongst the Ceylon buddhists, which still prevails there, though directly opposed to buddhist doctrines and not existing in any similar form in other buddhist countries.

Sakhya Sinha, according to Thibetan books, died near the town of Kusha in Kamrup beneath the shade of two sal trees on the southern bank of the Brahmaputra river, then called Heranyo.

In Tibet the Buddhist practical creed is thus briefly stated by Csoma de Koros:—*1st.* To take refuge only with Boodh. *2nd.* To form in the mind the resolution to aim at the highest degree of perfection, and so to be united with the Supreme Intelligence. *3rd.* To humble oneself before Boodh, and to adore him. *4th.* To make offerings of things pleasing to the six senses. *5th.* To glorify Boodh by music, and by hymns, and by praise of his person, doctrine, and love of mankind, of his perfections or attributes, and of his acts for the benefit of animated beings. *6th.* To confess one's sins with a contrite heart, to ask forgiveness of them, and to repent truly, with a resolution not to commit such afterwards. *7th.* To rejoice in the moral merit and perfection of animated beings, and to wish that they may obtain beatitude. *8th.* To pray and exhort existing holy men to turn the wheel of religion, that the world may long benefit by their teaching.—(*Prinsep's Tibet, Tartary and Mongolia, p.* 167.)

In this Tibetan creed, the doctrine of transmigration is shown, and final absorption into Buddha as the reward of a virtuous life. It, therefore, follows that Buddha, with the Tibetans, is the divine being, who created all and to whom all return, and that, for the good, there is no separate existence, in a future world. There has been some misapprehension regarding the Buddhas and Budhisatwas of the Tibetans, the regeneration of the Grand Lama being considered as an exceptional case of a Buddha returning amongst mankind. Mr. Hodgson, (pp. 137, 138,) truly calls the "divine Lamas" of Tibet, *Arhantas*, but he believes "that a very gross superstition has wrested the just notion of the character to its own use," and so created the "immortal-mortals, or present palpable divinities of Tibet." In the Nouv. Jour. Asiat. t. xiv. p. 408. ii, Fra Orazio says that "Lama sempre sara coll' istessa anima del medesime *Ciang-c'iub*, oppure in altri corpi." Remusat was not aware of this fact when he stated "Les Lamos du Tibet se considerent euxmemes comme autant de divinites (Bouddhas) incarnees pour le salut des hommes." But the explanation which Major Cunningham received in Ladak, which is the same as that obtained by Fra Orazio in Lhasa, is simple and convincing. The grand Lama is only a regenerated Budhisatwa, who refrains from accepting Buddhahood, that he may continue to be born again and again for the benefit of mankind. For a Buddha cannot possibly be regenerated, and hence the famous epithets of SATHAGATHA, "thus gone," and SUGATA, "well gone," or gone for ever.—(*The Bhilsa Topes by Major Cunningham, pages* 1 *to* 67.) One of the established points in Tibetan buddhism is the belief in metempsychosis, or the migration of the souls of animated beings, and the Tibetans believe in six forms in which a living being may be reborn, viz. Lha *Tib* Deva, *Sansk.* spirits or gods; Mi or men: Lha mayin, or evil spirits; Dudo or Johsong, brute beasts; Yidaga, imaginary monsters, and inmates of Nyalba or Naraka or hell.

The Buddhist religious works of Tibet brought to notice by Alexander Csoma de Koros, are the Tanjur, which consists in its different editions of 100, 102 and 108 folio volumes and comprises 1083 distinct works. The Tanjur consists of 225 volumes folio each weighing from 4 to 5 pounds, in the edition of Peking, but editions have also been published at Lhassa, and other places. Of these de Koros, gave an analysis in the 20th Volume of the Asiatic Researches and died soon after. In Turkestan, buddhism was still prevailing in A. D. 1419, in the cities of Turfan and Kamil, when Shah Rukh's ambassadors passed through and Toghlaq Timur was the first mahomedan sovereign of Kashgar of the lineage of Chengaz. There are now many buddhist priests at the capital of Khotan, but mahomedanism had been extensively prevalent in East Turkestan for centuries prior to its conquest by the Chinese in A. D. 1757, and the buddhist priests and temples may have been since introduced.

Nearly all Ladak is of the buddhist faith. The valley of Le or Ladak proper, Zanskar, Hembaks or Dras; Suru and Purik, Spiti, Nubra, Janskee, Rong are all buddhist. Of Rupshu, and Hanle, information is needed.

In the buddhism of the Burmese, they utterly, in theory at least, deny an intelligent and eternal Creator, and yet they distinctly recognise and apprehend future punishment of sin, or rather of the violation of the Buddha's commandments. This punishment, they argue, is worked out by the powers of nature in necessary sequence of pro-gression, just as you eat some fruit and a bowel complaint ensues. Mind, they say, produces action. The motive is chief. If any one speak or act from a corrupt mind, suffering will follow the action, as the wheel follows the lifted foot of the ox. And, again, mind produces action. The motive is chief. Actions proceed from mind. If any one speak or act with a pure intention, enjoyment will follow the action; as the shadow attends the substance.—(*Yule's Embassy, p.* 23.)

Dr. Mason, writing of buddhism in Burmah, says that the philosophy of buddhism is the religion of buddhism. To be a buddhist is to believe in the philosophy of being. The buddhists propound as an axiom that all things are unreal, and on it all their philosophy is based. Some buddhists recognise idols, a few wholly reject the worship of idols, but these are equally buddhists, who believe that true happiness is not found in any state of body or mind; that existence is a calamity, and that the only desirable object is the extinction of being, or Nirban, where there is deliverance from ideas and consciousness. To be a pious buddhist is to remain unaffected by surrounding objects, to deny ones-self of every thing beyond the bare necessaries of life and to cry out, day and night, all things are transitory, productive of unhappiness and unreal. A change of heart and implicit faith are essentials of salvation. The Burmese buddhists believe in good and evil spirits and in the scheme of transmigration and, for the good, final absorption, and the Burmese buddhist prays that he may, in his transmigrations, meet with a Buddha to convert him. Woman takes a humble position in Burmese buddhism and she longs to become a man in her next transmigration. Their views as to the desirableness for release from this life are evinced in modes painful to European feelings. The Revd. Mr. Marks, when in Moulmein, had a sick pupil whom he went to see. On entering the house, and inquiring for the lad, the mother in a glad manner repeated he was well, and jauntily led to another room, where he was pained to find the young boy lying dead, and still more pained by the mother continuing to repeat that he was well. In Burmah, in some temples, four past terrestrial Buddhas occupy the four sides of some temples.—(*Yule Cathay, i,* 242.

In Burmah, there is a great belief in spirits both good and bad, amongst others the nat, and the beloo. An attempt to reform buddhism was made, in 1863, by some of the chief phoongyees of Kemmendine. Like the protestants of christianity and the bramhists of hindooism, the reformers seem to go back to their oldest books, or *Bedagat,* the three series of which minutely describe the duties of priests and laity and define the objects of faith. They condemned the lax practices of this degenerate age—such as priests wearing sandals, carrying umbrellas, and visiting religious theatrical shows. The new sect seemed to be puritans. At the bottom of their reforms, ludicrous as they appear, there was doubtless much puritan earnestness. They called themselves "Soolay Gandee," Soolay meaning the great spirit to whom the pagoda in the centre of Rangoon is dedicated. In hindooism some new and earnest sect, like the religious orders of Romanism, is always rising.

But it is a new thing to see a development of earnestness within so apathetic a creed as modern buddhism.

Between the buddhists of Siam and Ceylon, there has been much intercourse, and it is probable that almost identical doctrines are held in the two countries. During the efforts made by the buddhist monks of Ceylon, in the defence of their religion and in their attacks on christianity and on Jehovah, the king of Siam and one of the native chiefs of Kandy contributed largely towards the publication of the numerous tracts, pamphlets, and serials that were sent forth from the buddhist printing presses of Ceylon. When Siam was visited by Sir John Bowring, he found a king reigning, who, in early life, when a late king had usurped the throne, had withdrawn from political squabbles to the safety and sanctity of the religious profession and was residing in a buddhist temple, from whence he was brought forth to occupy the throne, after the seclusion of a quarter of a century. It is stated by a writer in the Journal of the Indian Archipelago (No. XI, Nov. 1852, p. 606) that, in Cambodia, Buddha is styled Samonacudom. He is not regarded by the Cambojians as the first cause, the creator of all things, but there prevails amongst them a pantheism, in which all nature is deified, but above all they place Buddha and worship him daily. The Satra Trayphum and the Satra Papithom are mentioned as two of their books.

In China, buddhism has never taken a high place amongst the philosophies and religions of the country, though recognised as a state religion from A. D. 65, under the Emperor Ming-ti. But buddhist missionaries had entered China in the third century before Christ. A missionary is mentioned in the Chinese Annals in the year 217 B. C.; and about the year 120 B. C., a Chinese general, after defeating the barbarous tribes north of the desert of Gobi, brought back as a a trophy a golden statue of Buddha.—(*Muller's Lectures, p.* 139.)

There was much intercourse between the buddhists of India and China for some centuries, after the introduction of buddhism into China, but in the tenth century, after A. D. 975 the religious visitors to China became greatly more numerous. Also, Chinese pilgrims passed years in India studying their religion and they wrote narratives of their travels. Of these, there have been published the travels of Fa Hian, A. D. 399-414 ; of Hi-wen Thsang, A. D. 628-645 ; and of Hoei Singh who set out, A. D. 518. A later traveller, Khi-Nie, who journeyed A. D. 964-976, was sent by the emperor of China at the head of 300 monks to seek relics of Buddha and to collect palm books.

Such pilgrimages continue, and Colonel Yule had met men at Hardwar, who had crossed the Himalaya from Mah-Chin to visit the holy flame at Jawala-mukhi in the Punjab —(*Yule. XXI, II.* 411.)

The Chinese buddhist invocation is Oh me to Fo ! Oh me to Fo !

In China and Mongolia according to M. M. Huc and Gabet, theistic buddhists acknowledge an Adi-Buddha or eternal Buddha, whom they consider to be god over all. In Ceylon and Indo Chinese countries, there is no such belief. (*Yule, I.* 242.) Much of the costume of buddhist priests and of the ritual, has a similarity to those of christians of the Romish and Greek forms, and De Guignes, De Gama, Clavijo, Anthony Jenkinson, all notice statements regarding the Geeek Church, the Chinese, and Burmans, indicative of a belief in the identity of the form of worship. When Dr. Richardson and Captain Macleod, in their exploration of the countries east of Burmah, fell in with Chinese traders—these generally claimed them as of their own religion. In the Chinese temples are a number of images not unlike the christian representations of Mary and of some of the saints ; lamps and wax lights are on the buddhist altar ; the buddhist priests are robed in the sacred vestments called Pluvials in christian ritual books, processions of suppliants occur as with christians and chaunting is in a style almost exactly like the Gregorian chaunts of christian churches. Early christian missionaries to China believed these to have been introduced among them by the devil, clumsily imitating holy things and grasping at the honors due to God.—(*Yule II.* 551.)

A prominent feature amongst the Japanese is the variety of their religious beliefs, one of which is that of Buddha, but the Sin-tu religion prevails to as great an extent. The priests of the buddhist religion use the Chinese language in their worship, except in their poetry which is in the Japanese tongue. There is a paper in *Notes and Queries on China and Japan*, in which an endeavour is made to identify the curious symbol so often found on buddhist images, which buddhists themselves regard as the emblem of the seal of Buddha's heart—the "Svastika" of Sanscrit scholars—with the "Hammer of Thor" of Scandinavian mythology. It is conjectured that this symbol must have been brought to China, Japan, and Mongolia by buddhist priests, and its origin is therefore to be looked for in India. It appears there on the most ancient buddhist coins, and has been noticed on the walls of all the rock-cut temples of Western India. Even the Ramayana mentions domestic utensils as marked with the very same figure. The Svastika appears in ancient Teutonic and Scandinavian mythology, under the name of Thor's hammer, as the sceptre of Thor, the god of thunder. It has also been discovered on many ancient coins of

Indo-Germanic nations. From all this it is concluded that the Svastika was the common symbol and chief magic charm of the Aryan races before they separated. To the present day this "hammer of Thor" is used among the German peasantry, and in Ireland as a magical sign to dispel thunder. Moreover, as in the middle ages, bells used to be rung to drive away thunder, the Svastika of the East used to be engraved on church-bells, and to the present day many bells in England bear the symbol.

The buddhism of the Lieu-Cheu Islands is less perfect than that of the Japanese.

The Korean buddhists and buddhism were made known to Mexico by Chinese priests, in the fifth century A. D and had followers in that country until the thirteenth century, when the conquering Azteks put an end to it.

Buddhism is eminently a religion of negation. In carrying out the ascetic views of Sakya Muni, pious buddhists of all these countries, both men and women, have, from the first enunciation of his doctrines, been accustomed to withdraw from public life into monasteries and convents. We have distinct evidence of the existence of institutions of this kind established at dates long antecedent to the Christian era. They were in the form of Vihara, or cells and caves, or buildings, erected for the convenience of those who sought so to spiritualise themselves by separation from the world. Only the ruins of such buildings exist in India, but in Tibet and Tartary they still are like those left by the Indian Sramanas, or Lamas, ten and twenty centuries anterior to the present, and varying very little from what is reported of the monasteries of the earlier Christians; there are also, according to M. Huc, both at Koon-boom and in Tibet, the types of the devotees who practised penances, and sat as pillars, like Simeon Stilites.

Pythagorean institutions are described as very monastic in their character, in that respect resembling closely, the vihara of the buddhists of India. The doctrines of Pythagoras were widely spread over Greece, over Italy, and Asia Minor for centuries after his decease, and under the name of Mithraic, the faith of Boodh had also a wide extension.—(*Prinsep's Tibet, Tartary and Mongolia*, *p.* 140, 161.)

To a buddhist ascetic, continence is essential to purity, but even contact is unlawful. Nevertheless convents for women are very characteristically buddhist institutions, they existed in the Burman empire till of late years, and are still to be met with in Nepal and Tibet.—(*Toy Cart*, *p.* 142.)

Alms and alms-giving have ever taken an important place in the religious systems of the world. So early as the time of Moses, the Hebrews were commanded to give freely, and to throw their bread upon the waters with an assurance that after many days it would return to them again. In the buddhist, hindu and mahomedan religions, as also amongst the Romish christians, it is not only deemed good to give alms, but the giving bestows a merit on the individual and they are generally bestowed with much openness. In such case differing from the injunction in Matthew vi. 2 "When thou doest thine alms, do not sound a trumpet before thee." Hindu and mahomedan sovereigns bestow much to the shrines of their respective faiths, and annually, on the maharram, the mahomedan kings entertain many Syeds on permanent pay. Some mendicants, alike hindus and buddhists, are not allowed to solicit or demand alms, but have to go with a quickstep, and, with or without a bell, through the streets, and without comment, accept whatever is thrown into their wallet. And to describe a child as of an unknown father a speaker will say, who can say, who threw the morsel into the beggar's wallet. Others solicit humbly as I. Samuel c. xxv. v. 8, 'Give, I pray thee, whatsoever cometh to thine hand, to thy servants, and to thy son David,' a mode of address not unfrequent among the hindus with whom a poor man often says to a rich man, 'Oh! father, fill the belly of thy son: he is in distress.' But the hindu pilgrims to sacred shrines are often exacting, even insolent and, though rarely so to Europeans, will sit down at a door and refuse to stir until their day's food be given and the mahomedan fakirs of whom there are several sects, often continue to demand till alms be given. The buddhist mendicants are the least clamorous, and so completely is the act of offering to their shrines, the final individual merit, that costly gifts can be immediately removed and outside the great temples at Rangoon and Prome such vast quantities of food offerings are daily thrown, as to be disgusting. All these classes have distinguishing costumes, the buddhist with his yellow robe; the hindu sanyasi or viragi smeared in ashes, and the mahomedan fakir may have a loin cloth. Amongst them all, are many true ascetics, and recently in 1867 a hindu devotee was to be seen, who had, at that time sat for five years in one of the Ellora caves; but there are amongst them also many impostors.—*Professor Max Muller's Lectures*, *p.* 140. *Professor Max Muller's Chips from a German Workshop*; *Bunsen's God in History*, *Vol. I.* 341, 211. *Wheeler's Hist. of India*, *p.* 159; *Tennent's Ceylon*, *Vol. I. p.* 343, 527; *ii.* 614; *Tennant's Christianity in Ceylon*, *p.* 206, 207 264; *Hardy's Eastern Monachism*; *Calcutta Review*; *Frazer's Magazine*, *June* 1868, *Rangoon Times*; *Saturday Review*; *Bengal As. Soc. Journ*; *Journ. Ind. Archip.* *Bowring's Siam*, *Vol. I*, *p.* 50; *Prinsep's Antiqui-*

ties by Thomas, p. 150 ; *Prinsep's Tibet, Tartary and Mongolia, p.* 140, 162; *Coleman's Mythology, p.* 205 ; *Revd. W. Taylor's Catalogue Raisonné* ; *Toy Cart, p* 142 ; *Cunningham's history of the Sikhs, p.* 23 ; *Cunningham's Bhilsa Topes, p.* 1-67 ; *Colonel Henry Yule's Embassy*; *Yule's Cathay and the Way Thither* ; *Perry's Bird's Eye View of India, p.* 53; *Huc's Recollections of a Journey, p.* 105. *The Revd. J. T. Jones in Journ. Ind. Arch. No.* 9, *Vol.* 7. *Tod's Rajasthan* ; *American Expedition.*

BUDDHA-BASARA, Sans. Cardiospermum halicacabum. *Linn*; popular superstition asserts that by eating its seeds, the understanding is enlightened, and the memory rendered miraculously retentive.—*Ell. Fl. And.*

BUDDHA DAS. Father of Upatisso who built hospitals for cripples, for pregnant women, for the blind and diseased. See Mahomedanism.

BUDDHA GAYA. A city erected near the spot where Gotama became a Buddha, many buddhists' architectural remains have been discovered there.—*Hyder's Eastern Monachism, page* 434.

BUDDHA GHOSA, author of a commentary on the sacred writings of the buddhists.—*Hardy's Eastern Monachism.*

BUDDHA GUPTA, a king who governed the country between the Jumna and the Nerbudda, about the eighth century.

BUDDHA KAKARA, Tel, Cardiospermum halicacabum, *Linn.* See Buddha basara.

BUDDHATHAN, the shed in which is placed the Sonthal deity Manjiharam.

BUDDHA TRIVICRAMA, a name of Buddha.

BUDDHIST ARCHITECTURAL REMAINS are the only vestiges of the prevalence in British India of the doctrines taught by Sakya Sinha and his disciples, but they afford valuable illustrations of the alterations introduced into that great teacher's doctrines. It is known that the final disappearance of buddhism from continental and peninsular India was violent, their priests were slain and their temples burned, and there can be no doubt that the brahminical priesthood were the immediate actors in the scenes; but whether these were of the Vaishnava or Saiva sect there is no information. The buddhist remains now existing may be divided into four distinct classes ; 1st, Cave Temples, containing Topes, Sculptures, Paintings, and numerous inscriptions. 2nd, Vihara, or Monasteries, 3rd, Inscriptions on Rocks and Pillars. 4th, Tope, or religious edifices. Major Gill, of the Madras Army, was long employed at Ajunta in copying paintings ; but the volumes of inscriptions in the caves of Nasik, Junir, Kanari, and Karli, still remain to be copied. In Dr. Bird's learned "Historical Researches on the Origin and Principles of the Buddha and Jaina Religions," there are several plates of inscriptions from the caves of Kanari, Karli, Ajunta, Ellora, Nasik, &c.

The Vihara or Monasteries, are of two kinds :—1st, Cave Viharas, of which several magnificent specimens have been published by Mr. Fergusson ; and 2nd, Structural Viharas, of which some specimens still remain at Sanchi, but in a very ruinous condition.

(*a.*) The Vihara or Monastery caves, are the first class, and consist of (1) natural caverns or caves slightly improved by art. These are the most ancient, and are found appropriated to religious purposes in Behar and Cuttack : next (2) a verandah opening behind into cells for the abode of priests, as in Cuttack and in the oldest vihara at Ajunta ; the third (3) has an enlarged hall supported on pillars. The most splendid of these are those of Ajunta ; though the Dherwara at Ellore is also fine, and there are some good specimens at Salsette and Juner.

(*b*) Buddhist Chetya caves form the second class. These are the temples or churches of the series and one or more of them is attached to every set of caves in western India, though none exist on the eastern side. Unlike the Viharas, all these caves have the same plan and arrangement. The Karli cave is the most perfect in India. All these consist of an external porch or music gallery, an internal gallery over the entrance, a central aisle which may be called a naive, roofed by a plain waggon vault, and a semi-dome terminating the naive, under the centre of which always stands a Dahgopa or Chaitya. In the oldest temples, the Dahgopa consists of a plain central drum, surmounted by a hemispherical dome crowned by a Tee which supported the umbrella of state of wood or stone. These two classes comprehend all the buddhist caves in India. The third class of religious architectural remains in India, consists of brahminical caves, properly so called. The finest specimens are at Ellora and Elephanta though some good ones exist also on the island of Salsette and at Mahabalipur. In form many of them are copies of and a good deal resemble the buddhist vihara. But they have not been appropriated from the buddhists as the arrangement of the pillars and position of the sanctuary are different. They are never surrounded by cells as all viharas are, and their walls are invariably covered or meant to be covered with sculpture, while the viharas are almost as invariably decorated by paintings except the sanctuary. The subjects of the sculpture of course always set the question at rest.

The fourth class consists of rock cut models of structural brahminical temples. To this class belong the far famed Kylas at Ellora ; the

Sivite temple at Doomnar, and the Ruths at Mahabalipur. This last is cut out of isolated blocks of granite but the rest stand in pits.

The Indra Subba group at Ellora should perhaps form a fifth, but whether they are Brahminical or Jaina is undecided.

The fifth or true Jaina caves occur at Khandagiri in Cuttack and in the southern parts of India, but are few and insignificant. In the rock of Gwalior fort, there are cut in the rock a number of rude colossal figures some 30 to 40 feet high, of some of the Thurtankar; some sitting, some standing.

The Behar caves are in the neighbourhood of Rajagriha: the milkmaid's cave and brahman girl's cave have inscriptions in the Lath character. They are about 200 B. C. and are the most ancient caves of India. The Nagarjuni cave and Haft Khaneh or Satghar group are situated in the southern arm of the hill at some little distance from the brahman girl and milk maid's cave. Another group is the neighbouring Karna Chapara and Lomas Rishi caves.

The caves of Udyagiri and Khandagiri hills about 20 miles from Cuttack and five from Boban Eswara are next in antiquity to those of Behar. They are built on the hills of Udyagiri and Kandagiri, the former are Buddhist and the older, the latter probably Jaina. Many of the inscriptions are in the Lath character, and this gives their age as anterior to the Christian era. The frieze sculpture in the Ganesgompha is superior to any in India and resembles that of the Sanchi tope at Bhilsa. In it there are no gods, no figures of different sizes nor any extravagance. In the Buddhist caves here, there are no figures of Buddha, nor any images. In a Jaina cave near, on Khandagiri, the 24 Thirtankara with their female energies are sculptured.

The Ajunta, are the most complete series of buddhist caves in India without any mixture of brahmanism and contain types of all the rest. They are in a ravine or narrow valley in the ghat south of the Taptee.

At Baug in a ravine or small valley in the ghat on the north side of the valley of the Taptee, are three ancient Buddhist caves.

The Karli caves are close to the high road from Poonah to Bombay, about half way down, on the right hand side of the valley as you proceed towards the sea. They are not so extensive as those of Ajunta but they are purely buddhist. The largest and most splendid Chaitya cave temple in India which could be selected for reproduction by art is the principal excavation at Karli, and it is also interesting as the oldest Indian work of the kind known to exist.

Karli has numerous inscriptions in the caves, in the Pali language, of date B. C. 543, *(Dr. Wilson)* but if the Salivahana era be intended, then the date is A. D. 176, *(Dr. Stevenson).* The character used in those inscriptions is slightly modified Lat. The religion, or divinities or sages mentioned are buddhist, the invocation is to the Triad; no doubt meaning Buddha, Dhurma, Sanga. Of the kings or princes mentioned, Dr. Wilson says, Vijara; Dr. Stevenson, Arodhana, lord of India, Garga, ruler of the Shaka. Of the numerous buddhist inscriptions in the cave temple at Karli, Drs. Wilson and Stevenson are not quite agreed about the reading. But, Garga, the " ruler of the Shaka" (Sakya, Buddha's tribe), is mentioned. Dr. Stevenson mistook the language for Sanskrit, which Mr Prinsep from copies sent by Col. Sykes proved to be Pali. The excavation of the temples, and gifts by individuals in aid, are mentioned.—*iii, p.* 499.

The Salsette or Kenneri caves, in the Island of Salsette, are purely buddhist, but inferior to those of Ajunta or Karli. They are excavated in a hill in the midst of an immense tract of forest country and Mr. Fergusson supposes their date to be about the 9th or 10th century of the Christian era.

Dhumnar, about 40 miles S. E. from Nemuch, but close to Chundivassa, contains buddhist caves with a brahminical rock temple behind. Those of Dhumnar, like the caves of Ellora, contain a strong admixture of brahmanism.

The Ellora caves are excavated in a porphyritic greenstone amygdaloid and are largely brahminical. They are in the face of the mountain overlooking the valley of the Godavery close to Roza, the burial place of Dowlatabad and where Aurungzeb is interred.

Those of Elephanta are entirely brahmanical, though perhaps of the same age as those of Ellora. The caves of Elephanta overlook the harbour of Bombay. They are cut in a harder rock than those at Ellora. These caves are in the island of Gharipuri, called by Europeans Elephanta, an island in Bombay harbour. Among the hundreds of figures, there sculptured, every principal deity is found. Buddha is, evidently, from his size and situation, a principal personage there; Mahabalipuram or Seven Pagodas between Covelong and Sadras, south of Madras, have been described by Dr. Babington in Vol. II. Trans. R. A. S. p. 258; and by Messrs. Chambers and Goldingham in A. R. Vol. I. p. 145 and V. p. 69 and by Mr. Charles Gubbins in Bengal *As. Soc. Journal.*

The Mahabalipore caves are entirely brahmanical and have been excavated after all the other series were formed.—*(Fergusson's Rock cut temples of India.)*

The inscriptions on the pillars at Delhi and Allahabad, and on the Tirhut pillars at Mathya and Radhiya, have long ago been deciphered and translated by the remarkable ingenuity of the late James Prinsep. The inscriptions on the rocks at Junagiri in Gujrat, and at Dhauli in Kuttack, were also interpreted by him. A supposed third version of the rock inscriptions (but in the Ariano-Pali character), which was found at Kapurdigiri, near Peshawur, has been carefully collated with the others by Professor Wilson. Many short inscriptions from Gaya, Sanchi, and Birat, as well as from the Cave temples of Southern India, have also been published at different times, but, with the single exception of the edicts in the Rock Inscriptions, which contain the names of Antiochus, Ptolemy, Antigonus, and Magas, the inscriptions in the able work of Major Cunningham are of greater interest, and of much higher importance, than all that had before been published. The numerous Topes which still exist in India are chiefly confined to a few localities. The Topes of Kabul and Jellalabad were opened by Messrs. Honigberger and Masson in 1835, and those between the Indus and the Jhelum by Generals Ventura and Court in 1833 and 1834. The Topes near Benares were opened by Major Cunningham in 1835, and those at Sanchi and other places around Bhilsa, were also opened by him and Lieut. Maisey in January and February of 1857. The Topes of Tirhut and Bahar still remain to be examined. Of the Bhilsa Topes none have yet been described excepting the largest of the Sanchi group near Bhilsa. An accurate plan and section of this building, with a short account of the various subjects represented in the sculptured bas-reliefs of the gateways, was published by Captain J. D. Cunningham, in the Journal of the Asiatic Society of Bengal. In the Topes dedicated to the celestial Buddha, the invisible being who pervaded all space, no deposit was made, but the Divine Spirit, who is "Light," was supposed to occupy the interior, and was typified on the outside by a pair of eyes, placed on each of the four sides either of the base, or of the crown of the edifice. Such is the great Chaitya or Tope near Kathmandu, in Nepal, dedicated to Swayambhunath the "Self-existent" in which the eyes are placed on the upper portion of the building. A specimen of the regular Chaitya is represented in the 3rd compartment (inner face) of the left-hand pillar of the eastern gate at Sanchi, in which the two eyes are placed one above the other. Such also are the numerous Chhod-ten in Tibet, which are dedicated to the celestial Buddha, in contradistinction to the Dung-tens, which are built in honor of the mortal Buddhas, and which ought to contain some portion of their relics either real or supposed. The first, Chod ten, means simply an "offering" to the Deity, the latter, Dung-ten, is emphatically a "bone," or relic-receptacle. The same distinction is preserved in the Sanskrit terms, Chaitya and Dhatugarbha or Dhagoba. The former is properly a religious edifice, dedicated to Adi-Buddha, while the latter is only a "relic-shrine," or repository of ashes. The word Chaitya, however, means any sacred object—as a tree, an altar, a temple—as well as any monument raised on the site of a funeral pile, as a mound or a pillar. Chaitya may, therefore, perhaps, be only a general term for both kinds of mound; while Dhatugarbha or Dhagoba is particularly restricted to the "relic" shrine. The word Tope is derived from Afghanistan, where it is used to designate all the solid mounds of masonry which were opened by Messrs. Honigberger and Masson. The same term also is applied to the massive tower of Manikyala in the Punjab, as well as to all the smaller towers in its neighbourhood. There can be no doubt therefore that the term Tope is the same as the Pali "Sthupo," and the Sanskrit "Stupa," a "mound" or "tumulus," both of which terms are of constant use in the Buddhist books. Stupa, or Tope, is therefore a name common to each kind of tumulus; whether it be the solid temple dedicated to the Supreme Being, or the massive mound erected over the relics of Sakya, or of one of his more eminent followers. From several passages in the Pali buddhistical annals, it would appear that Topes were in existence prior to Sakya's advent, and that they were objects of much reverence to the people. Sakya himself especially inculcated the maintenance of these ancient Chaityas, and the continuance of the accustomed offerings and worship. In the sixth of his precepts, to the people of Vaisali, he enjoins them to maintain, respect, reverence, and make offerings to the Chaityas; and to keep up the ancient offerings without diminution. But this was, doubtless, only a politic accommodation of his own doctrines to the existing belief of the people, adopted for the purpose of ensuring a more ready assent to his own views. Like as Mahomed recognised the prophetic missions of Moses and Elias, and the divinity of our Saviour Christ, so did Sakya Muni acknowledge the holy munis Karkutsanda, or Krakuchanda, Kanaka, and Kasyapa, as his immediate predecessors. They were probably, heroes or saints, who had obtained the respect of their fellow-countrymen during life, and their reverence after death. Stupas had been erected over the relics in the neighbourhood of Kapila and of Benares, and their worship was too firmly established to be attacked with any chance of success. Sakya therefore carefully engrafted them on his own system as the buddhas of a former age. It appears also that stupas had been erected over supreme monarchs prior to Sakya's advent, for Sakya particularly informs his disciple Ananda that, over the remains of a chakravarti raja, they build the sthupo at a spot where four principal roads meet." It is clear, therefore, that the Tope, or "tumulus," was the common form of tombs at that period. In fact, the Tope, as its name implies, is nothing more than a regularly-built cairn or pile of stones, which was undoubtedly the oldest form of funeral memento. The Topes were, therefore, of three distinct kinds: 1st, the Dedicatory, which were consecrated to the Supreme Buddha; 2nd, the strictly Funereal, which contained the ashes of the dead; and 3rd, the Memorial, which were built upon celebrated spots. Of the Dedicatory Topes, as it is improbable that any deposit would have been placed in them, we may plausibly conclude that the larger Topes, such as those of Sanchi, Satdhara, and Bhojpur, were consecrated to the Supreme Invisible Adi-Buddha. Of the Memorial Topes, little is at present known. It seems nearly certain, however, that the great Manikyala Tope was of this kind, for the inscription extracted from it, which begins with Gomangasa, "of the abandoned body," undoubtedly refers to Sakya's abandonment of his body to a hungry lion. This tope, therefore, dates earlier than the period of Fa Hian's Indian pilgrimage in A. D. 400. The Funeral Topes were of course the most numerous, as they were built of all sizes and kinds of material, according to the rank of the deceased and the means of his fraternity. At Bhojpur, the Topes occupy four distinct stages or platforms of the hill. The largest Topes, six in number, occupy the uppermost stage, and were, it is believed, dedicated to Buddha; that is, either to the celestial Buddha, Adinath, or to the relics of the mortal Buddha, Sakya. This view is borne out by the fact that the largest Tope contained no deposit, and that the second and third sized Topes yielded crystal boxes, one of which, shaped like a Tope, contained only a minute portion of human bone smallar than a pea.—*Cunningham, Bhilsa Topes; Fergusson, Rock-cut Temples, Masson.*

BUDDHIST TRIAD, consists of Buddha, Dharma and Sangha.

BUDDHIST WHEEL, is a prominent object in the buddhist sculptures of India. It is supposed to be as an emblem of the perpetual succession and eternity of matter; and it served likewise another purpose in the corruptions of buddhism. *Prayers* were pasted on it by the priests, who then put the wheel into rapid revolution. Each turn had the efficacy of an oral repetition; and the faster it revolved the more rapidly was the devotee approaching the ultimate bliss of Nirwana.—*Tennent's Christianity in Ceylon, p.* 244.

BUDHA, HIND. Old.

BUDHA GANGA, the old bed of the Ganges, from which the stream has shifted. It is traceable below Hastinapoor and also below Soron and Kumpil. The change of bed seems to have occurred since the time of Akbar.—*Elliot.*

BUDHIL RIVER. A tributary of the Ravi, rises in the Lahul range, issues in part from a lake at Mani-Mahes, a mountain much frequented by hindu pilgrims. At the junction, the stream is about half the volume of the Ravi.—*Cleghorn Punjab Report, p.* 110.

BUDDLEA LINDLEYANA. Syn of Edgworthia chrysantha.

BUDDLEGUNGE, in L. 89° 8′ E. and L. 25° 41′ N.

BUDLLEIA CRISPA.

Cheta buta.........	HIND.	Dhuru.........	OF CHAMBA.
Speravana	PASHTU.	Chitta buti	HIND.

A plant of the Panjab.

BUDGEROW. A boat in use on the Ganges. See Bajra. Boat.

BUDGEROW or Baggala; The latter name is an Arabic word, the feminine of "băghl" a mule. The Baggala is engaged in the trade of Cutch, Guzerat and the Malabar coast, to the gulph of Persia, the coast of Arabia and the Red Sea. They are Indian vessels and manned with Indian seamen called lascars. It is one of the most ancient vessels to be met with in the Indian seas. Their extreme length, from stern to taffrail, is about seventy-four feet, the breadth about twenty-five feet, and the depth in hold eleven feet six inches, with about one hundred and fifty tons burthen. The peculiarity of form and extraordinary equipment of these vessels is said to have been the same from the period of Alexander the Great: they are armed with two guns on the after part or right-aft of the stern for defence against pirates; and have their poop decks with a round stern: their extreme sections about the centre or middle of the vessel: they are very broad in proportion to their length, with a sharp rising floor: the stern is straight, and rakes very little more than the stern post. These vessels are constructed with timbers and planks, which are nail and trenail fastened, in the most rude and unsafe manner possible. The topside above the deck is barricaded with mats on the outside of the timbers, which run up to about eight feet from the deck; and when they have no cargo on board, this barricade is removed.

They have only one mast; with a huge yard made from two spars, the small ends lashed together, and a latteen sail, the tack of which goes to the sternhead, they generally trade like the Doms; and are navigated by Arabs and the people of Cutch.

This singular and rude vessel, as well as the Arab Dow, is peculiarly adapted to the coasts of Arabia and the Red Sea, which are subject to periodical winds during which these vessels are navigated with much ease.

The Sambuk is a small coasting vessel from fifteen to fifty tons burthen, trading in the Red Sea.

BUDHWAR, Wednesday, sacred to Budha, and named after him. Amongst hindoos it is a day propitious to any new undertaking.

BUDI, HIND. Amongst hindus, the period of the month from full to new moon, called the dark half of the month.—*Elliot.*

BUDI-BUDAKI, CAN. A class of religious mendicants in Mysore.

BUDIDE, TEL. Ashes.

BUDIDE CHATTA, also, Hamsapadi, TEL. Heliotropium Coromandelianum.—*Retz.*

BUDIDE GUMMADI, TEL. Benincasa cerifera, *Savi.*—Cucurbita Pepo.—*R. iii.* 718.—Budide means "ashes", referring to the white powder covering the fruit.

BUDII of Herodotus were Hebrews and first receivers and teachers of Buddhism.

BUDIL, HIND. Picea Webbiana also, P pindrow, the Silver fir.

BUDKHES, HIND. Cordalis govaniana.

BUDLEYOON, GREEK. The mooql of the Arabians, and Googal of India, names of Bdellium, also of the Commiphora madagascarensis tree.

BUDRANJA BOYA. A species of Melissa, a small plant found about Ajmeer, where it is considered heating, and is used to cleanse the blood: one seer sells for two Rupees.—*Gen. Med. Top, p.* 130.

BUDDRINATH. A celebrated temple within the Himalaya, 10,294 feet above the sea: Kedarnath is 11,753 feet. See Badrinath.

BUDRUNGU, BENG. Fagara budrunga; Tooth-ache tree.

BUDSHUR, HIND. Ephedra Gerardiana.

BUDU, HIND. Viscum attenuatum.

BUDUKHSHAN. See Badakhshan, Kush or Cush.

BUDUMURU, TEL. Sponia orientalis.—*Planch.*

BUDUREE, BENG. Zizyphus jujuba.

BUDYTES, a genus of birds, of the Family Motacillidæ and order III. Insessores or Perchers. B. beema vel neglecta; B. flava; B. melanocephala and B. viridis are known in India. See Birds.

BUENA HEXANDRA. China Bark.

BUFF, ENG.

Peau passées en buffles	FR.	Buffelhaute … …	GER.
Peau de buffle… ……	„	Bufalo Cuojo di	
Buffle … … …………	„	Bufalo… … ……	IT.
Büffel……… …… …	GER.		

A kind of leather prepared from the skins of thick hided animals, buffaloes, oxen and the deer tribe—*McCulloch, Faulkner.*

BUFFALO, the Bos bubalus of naturalists, is found wild in Ceylon, on the continent of India, and through the eastern Archipelago. Some naturalists are inclined to the opinion that there are two species. They are large ungainly looking animals with great horns, but a domesticated breed, to the west of Nirmul are of enormous size, almost like small elephants, and give a great quantity of milk. They are kept as milch kine, but are also employed as beasts of burthen, to carry sacks on their backs, to plough with, to drag carts. They have little or no hair, and their hides look like polished leather. They require to be in a moist climate or to be immersed in water daily. They love to wallow in water or slimy mud, and as they have little or no hair, often roll themselves in mud to get a coating of it. A large male bufalo is more than a match for a tiger.

In the Hambangtotte country, in Ceylon, the villagers are much annoyed by the wild ones, that mingle with the tame when sent out to the woods to pasture, and it constantly happens that a savage stranger, placing himself at the head of the tame herd, resists the attempts of the owners to drive them homewards at sunset. Being an animal to which water birds are accustomed, the Singhalese train the buffalo to the sport, and, concealed behind, the animal browsing listlessly along, they guide it by ropes attached to its horns and thus creep undiscovered within shot of the flock. In the northern parts of India, they are similarly trained to assist the sportsman in approaching deer. One of these "sporting buffaloes" sells for a considerable sum. Between 1851 and 1855, Liverpool imported from India, annually, about 30,000 of its hides and 600 tons of horns.—*Bickmore Travels. Stat. of Commerce. Tennents' Sketches of the Natural History of Ceylon, p.* 55. See Bos; Bubalus; Mammalia.

BUFFALO THORN, ENG. Acacia latronum.—*Willd. D. C. W. & A.*

BUFFEL, GER. Buff.

BUFFLE, FR. Buff.

BUFF LEATHER. See Hides.

BUFO. See Bufonia.

BUFONIA, a Section of the 2nd Sub-Class of Reptiles, Batrachia, and Order B. salientia.

The section Bufonia, includes the families Rhinodermatidæ and Bufonidæ, as under :

Section Bufonia.
    Fam. Rhinodermatidæ.
Gen. *Diplopelma*, viz.
D. Ornatum *D. et Bib.* of Goalpara.
D. pulchrum *Gunth.* of Arakan.
Gen. Engystoma, viz,
E. Berdmorei, *Blyth* of Pegu.
E. interlineatum, *Blyth* of Pegu,
    Fam Bufonidæ.
Gen Bufo, viz.
B. melanostictus *Schn* of Ceylon and Mergui.
B. Kelaarti, *Gunth.* of Arakan.
B. asper, *Schl.* of Mergui.
Gen Scutiger, viz
S. Sikkimensis, *Blyth* of Sikkim.

Dr. Hooker mentions that the Bufo scabra, the common Bengal and Java toad, abounded in the marshes, in the Lachen valley, adjoining Thibet. This is a remarkable instance of wide geographical distribution for a batrachian, which is common at the level of the sea under the tropics.—*Hooker Him. Jour., Vol. II. page* 96.

BUFO MELANOSTICTUS. Syn of Engystoma interlineatum.

BUGGY. In Southern India, a light conveyance, drawn by one horse, with a hood, resembling a gig.

BUGHRA, Pers. Macaroni.

BUGIO. In Japan, a Civil Officer, of the rank of two swords, who exercises controlling powers over Collectors, interpreters and other inferior officers. See Japan.

BUGHTI. See Bugti.

BUGIS. A bold, self-reliant, maritime, people of Celebes, of which they occupy the northern part, and they are known, in consequence, as the men of Macassar. The Bugis, originally from the same stock as the Malay, are superior to all other natives of the Archipelago, in their spirit of adventure. They are a brave, active, haughty, fierce, and vigorous race. They love justice, and are faithful to their bonds, but seldom forgive injuries. Under the name of Macassars they form the flower of the colonial troops in the Dutch service; they are bold hunters, and mounted on their brisk little horses, drive the deer through the woods, and capture it with a lasso. The Alfoera described in old accounts as a tall, comely race, of brown colour, much given to piracy, form perhaps the most amiable, if not the most civilised part of the population of Celebes. They possess all the courage, and few of the vices prevailing among the Bugis and Malays. They are however boastful and bullies. The Bugis have been the greatest colonists as well as the principal traders of the Archipelago. The ingenuity of the savage and the amenity of the civilised man, appear united in them. They have received the Koran, but not abjured the practices of their ancient faith —the dark old idolatory once universal in the Archipelago. Stones and trees, painted red, still share their devotions with the invisible god of Islam. Women are treated honorably among them—a distinction in their manners not yet effaced by the mahommedan social law. They determine many disputes by single combat but never avenge themselves by personal assassination. The Sulu race on the contrary, have no idea of putting themselves on a footing with their antagonist but always attack him in the dark, or offguard. Both the Malayan and Bugis nations are maritime and commercial, devoted to speculations of gain, animated by a spirit of adventure, and accustomed to distant and hazardous enterprizes; while the Javans, on the contrary, are an agricultural race, attached to the soil, of quiet habits and contented dispositions, almost entirely unacquainted with navigation and foreign trade, and little inclined to engage in either. This difference of character may perhaps be accounted for, by the great superiority of the soil of Java to that of the other two islands.

Amongst the Bugis traders to the east Kilwara is their metropolis. It is a mere sand bank, lying between Ceram Laut and Kissa and offers good anchorage in both monsoons. Horses are bought at Gorontoto in Celebes.

The natural wealth of Celebes is diversified and abundant. Besides timber trees, palms of various species, ebony, odoriferous sandal, dyewoods, areca, banyan, and bamboos, often forty feet high and three in diameter, are found. —*Bikmore*, 379. *Wallace, Vol. II. p.* 6364. *John's Indian Archipelago, Vol. I. p.* 353. *Raffles, History of Java, Vol. I. p.* 57. "*Memoirs I. p.* 67,263,264. *Journal of the Indian Archipelago, No. IV, September* 1849, *p.* 558. *Temminck, Coup d' Œil sur les Possessions Neerlandaises, III*, 85,86,87. *John's Indian Archipelago, Vol. I. p.* 352. *Pritchard's Physical Hist. Mankind, I.* 452. (4, *Brooke, Journals Borneo and Celebes. Mundy I.* 43.) *Hogendorp, Coup d' Œil sur Java.) Brooke, Journal, Borneo and Celebes. Mundy, I.* 82.) *but* Heylyn, *Cosmography*, 919.

BUGLAR TREE, of Chota Nagpore. Its bark, powdered, is used for uniting wood, as a substitute for glue.

BUGLI, Hind. Spiræa Lindleyana.

BUGLAS ISLAND, from Lat. 9° 4' to 9° 50' N. one of the Philippine Islands, the central group of which consists of the islands Pahang, Buglas, Leyte, Samar, Masbate, Bohal, and Zebu. Buglas contains a considerable number of the Negrito race, scattered troops of them occupying almost exclusively the crest of the mountain range which extends throughout the length of the island, a distance of one hundred and twenty miles; from them this island is also called Negros. It is supposed that some of the same race occupy part of Pahang. They are described as polytheists, but are without temple or ritual, though they invoke a deity named Kamburan and have a god of the harvest, of the fisherman and hunter, and worship the spirits of ancestors. They have a grotesque figure of a god, a remnant of fetichism. They worship the moon and stars and adore the rainbow after a storm.

BUGOODYAR. A river near Rilkote in Almorah.

BUGRA. A town near Hindola in Bhopal.

BUGRA, Hind. Gynandropsis pentaphylla.

BUGRI, Hind. Cleome ruta.

BUGS belong to the family Hemiptera, several genera of which occur in India. Amongst others, are Cantuo ocellatus, Leptoscelis marginalis, Callidea Stockerius, &c., &c. Of the aquatic species, the gigantic Belostoma Indicum attains a size of nearly three inches. Some of them are most attractive in color; a green one is often seen on leaves. They are quite inoffensive, if unmolested, but if irritated exhale an offensive odour.—*Tennent's Ceylon.*

BUGS, insects known as coffee bugs have, in recent years, attracted much attention from the anxiety and losses they have occasioned to the coffee planting interests, and from which planters are subjected to great losses, against which seemingly at present they have no means of protecting themselves. We allude here to the ravages of various animals, the most destructive of which are the several Coffee bugs, and Mr. Nietner of Ceylon recently examined which. He tells us that coffee was brought to Ceylon by the Dutch about 200 years ago, and the first regularly worked estate was opened in 1825, but the bug does not seem to have appeared in large quantities till 1845, when, however, it began to spread with such rapidity that in 1847, a very general alarm was taken by the planters, about the same time that the potato, wine and olive diseases began to create alarm in Europe. The Coffee bug seems however to be indigenous in Ceylon, for the white bug has been found in orange, guava and other trees as also on beet root and other vegetables, and the brown bug attacks the guava, hibiscus, Ixora, Justicia and orange trees, indeed every plant and tree and even the weeds on a Coffee estate, particularly such as are in gardens.

When a coffee tree is attacked by the bug, it is deprived of its sap and its nourishment, whilst the fungus which never fails to attend on the bug prevents restoration by closing the stomates through which the tree breathes and respires. Bug, he tells us, exists on the estates to an incalculable extent,—none are believed by Mr. Nietner to be quite free from it. Whole estates are seen black with bugs, *i. e.* with the fungus: and, he asks, "am I wrong in saying that if there was no bug in Ceylon, it would at a rough guess produce 50,000 cwts. of coffee more than it actually does." The value of this quantity on the spot being about £125,000, this sum represents the aggregate of the annual loss by bug sustained by the Ceylon planters.

Mr. Nietner's observations have been more particularly confined to the group of districts around Peacock hill, but his list of the enemies of the Coffee tree holds good in general for the entire Coffee region of Ceylon. He tells us, however, that the brown and white bug and the black and white grub, are the only universal and important enemies of the Coffee tree, and that the destruction caused by *Arhines*, *Limacodes*, Zenzera, Phycidea, Strachia and the Coffee rat, appear to be of a more local and occasional nature and are therefore of less importance. There are three pests which are chief the white bug, the brown bug and the black bug.

The appearance and disappearance of the Coffee bug he tells us is most capricious. It comes and goes—now rapidly spreading over a whole estate, now confining itself to a single tree amongst thousands;—here, leaving an estate in the course of a twelve-month, there, remaining permanently. Sometimes spreading over a whole estate, sometimes attacking a single field, then leaving it for another and another. But the white bug prefers dry, and the brown damp, localities, the latter being found more plentiful in close ravines and amongst heavy rotting timbers than on open hill sides, and it is probably to this predilection, that the shifting of the insect is attributable. The bug, of course, seeks out the softest and most sheltered parts of the tree,—the young shoots, the undersides of the leaves and the clusters of berries.

The injury done by the white bug seems more severe than that from the brown, but not being so plentiful as the latter, it is of less general importance The white bug is especially fond of congregating amongst the clusters of berries, which drop off from the injury they receive, and trees often lose their entire crop in this manner. The injury produced by the brown bug is the weakening of the tree and is thus more general, but the crop does not drop off altogether nor so suddenly. With white bugs on an estate the crop can hardly be estimated; with brown bugs it can.

The White or Mealy Bug, is the Pseudococcus adonidum. The male insect is of a dirty brownish color and slightly hairy. It is very minute (very much smaller than the females; only about half a line long) and resembles certain small Ephemeridæ or May flies. The female is oval, brownish-purple, covered with a white mealy powder which forms a stiff fringe at the margin and at the extremity of the abdomen two setæ. The larvæ and pupæ are active and move about. The insects in all stages of development, are found in Ceylon, all the year round, chiefly in dry and hot localities, on the branches of trees and on the roots to one foot under ground. Mr. Nietner says it is identical with the species naturalized in the Conservatories of Europe. It is preyed upon by the "Scymnus rotundatus, a minute beetle of the Lady bird tribe, of the size of pin's head, black and pubescent. Also, thee yellow colored and common Encyrtus Neitneri and the black colored scarce Chartococcus musciformis, two minute Hymenoptera (wasps), only ½‴ long and the minute whitish mite Acarus translucens. Of the members of this family of insects, the Coccidæ, some, as the cochineal and lac-insects, are of great economical importance; but others as the sugar-cane blight of the Mauritius, the Aspidiotus, and the Coffee bug, are excessively baneful to the gardener and agriculturist.

The male of the brown or scaly bug, Lecanium coffeæ, is of a clear light pinkish brown colour, slightly hairy and very pretty. It is more delicate than the male Pseudococcus. The females when young are yellowish, marked with grey or light brown; and old individuals are light brown with a dark margin. It affects cold, damp, and close localities 3,000 feet in height and the propagation as in the white bug is continuous. The brown bug is much infected with parasites, amongst which the most common are eight minute Hymenoptera (wasps) with brilliant colours, but a mite, the Acarus translucens, and the larva of the Chilocorus circumdatus, a kind of Lady bird, also feed on the bug. In the larva state, the male and female brown bug are not distinguishable. The number of eggs produced by a female brown bug, is about 700. Those of the white bug are not so numerous: but their propagation in Ceylon is continuous, throughout the year, and this explains their great abundance compared with cold countries where the produce is one generation of young annually. The brown bug, particularly the full grown female, is dreadfully infested with parasites, which thus greatly help the planter. Indeed, it is a question whether coffee planting could be carried on without their aid in the destruction of the bug.

The black bug, is Lecanium nigrum, but the female only is known. In color it is from yellowish grey to deep brown and almost black in age, and of a shield-like shape. It occurs alone but also intermixed with the brown bug— but it is much less abundant and therefore not demanding the planter's attention. Its occupation of a coffee or any other tree, gives rise to the appearance of a glutinous saccharine substance which has received the name of Honey-dew. This is either a secretion of the bug or the extravasated sap which flows from the wounded tree or probably a combination of both. A fungus or two fungi, the Syncladium Nietneri and Triposporium Gardneri seem to depend on this for vegetation as the Honey-dew and the fungus disappear with the bug.

Another bug, the Strachia geometrica, of a yellowish colour, but marked with grey and orange on the upper side, was found at Badulla. It feeds upon the juice of the young berries, three per cent. or more of which were said to have suffered from it. It is allied to the green or fœtid bug, but though it may occasionally cause destruction, there is no fear of it ever becoming a serious nuisance.

One of the Aphidæ, *Aphis coffeæ*, the Coffee louse, is found in small communities on the young shoots and on the underside of the leaves of the coconnut tree, but the injuries it occasions are insignificant.

Several caterpillars, the *Aloa lactinea*, the *Orgyia Ceylanica*, *Euproctis virguncula*, the *Trichia exigua*, *Narosa conspersa*, the *Limacodes graciosa* and a species of *Drepana* are found on the coffee trees, but they do not cause much injury. Another caterpillar, however, though fortunately not abundant, the *Zeuzera coffeæ*, destroys many trees, both young and old by eating out the heart. It resembles the caterpillar of the goatmoth of England and is as thick as a goose quill. It generally enters the tree 6″ or 12″ from the ground, ascending upwards. The sickly drooping of the tree marks its presence.

Black grub. The larva of the moth called *Agrostis segetum*, is the very destructive "black grub." This pest is about an inch long and is most abundant from August to October. The caterpillar lives in the ground but comes out at night to feed, and is very common and injurious. They attack not only Coffee trees, but all sorts of vegetables and flowers and are very destructive to gardens and in the field, as they eat every thing that is artificially raised, despising grass and weeds. They generally appear only on certain fields and will not go over an estate. The insect is not confined to Ceylon; its ravages are well known in India, at the Cape of Good Hope, and in Europe, where it injures the grain and beet root crops. In Ceylon it only attacks young Coffee trees, gnawing off the bark round the stem just above the ground Where the trees are very small, they are bitten right off and the tops sometimes partially dragged under the ground.

where the grubs may easily be discovered and dislodged. The damage which they inflict on plantations may be estimated when it is mentioned that Mr. Nietner lost through them in one season, in certain fields, as many as twenty five per cent. of the young trees he had put down.

The larva of a little moth, the Galleriomorpha lichenoides, and three caterpillars of the Boarmia leucostigmaria, B. Ceylanica and Empithecia coffearia, are found on coffee trees and other plants, from September to December.

The larva of the Gracillaria coffeifoliella mines the coffee leaves, it is very common but of no importance to the planter.

The ravages of the large, well known, beautiful locust, the Phymatea punctata, with its scarlet abdomen and yellow and bronze above, are not continuous in the coffee tree, but are occasionally very annoying. A swarm settled on a field of one year old coffee and gnawed the bark off the stems, causing them to throw out many shoots and permanently disfigured five per cent. of the trees. They do not touch the Illuk grass, Saccharum Konigii, *Retz.* but seem only to attack cultivated plants and trees. At Tangalle they destroyed tobacco plantations, and at Matillee in Kandy the native grain crops were injured by these locusts. The larvæ and pupæ are as destructive as the perfect insects, but this seems, fortunately, the only species of locust that does any real injury in Ceylon, and this injury is in importance not to be compared with that done by other species in other countries.

White grub.—Under this name are included the larvæ of various Melolonthidæ, the Cockchafers of Ceylon, which do much harm to coffee plantations, young and old, by eating the roots of the trees. Mr. J. L. Gordon of Rambodde considers the white grub to be by far the greatest enemy of the coffee trees which the planter has to contend with, as he never knew a single tree recover after their attack and he adds that they had destroyed, at Rambodde, in two years, between eight and ten thousand fine old coffee trees. Mr. Gordon used to dig up the soil at the foot of the trees and take out such grubs as he could find.

Weevils.—The family of the weevils is one of the most extensive amongst the beetles and in Ceylon, as in Europe, many of its members, do much injury to agricultural produce. Mr. Nietner had seen nearly the whole sweet potato (Batatas edulis) crop of the Negombo district destroyed by one of them, the Cylas sturcipennis. The common rice weevil *Sitophilus oryzæ*, is another instance, and one of the cocoanut tree destroyers of the Ceylon low country, the Sphænophorus planipennis belongs also to this family. The Arhines? destructor, a beautiful green weevil, Mr. Nietner had not found do any injury to coffee trees, but Mr. J. Rose of Matturattee writing to him says the mischief they do is plentiful and if they were as plentiful as the bug they would be the planters worst enemies. "Five or six acres were completely covered with them and they consumed almost every leaf. Year after year they appeared upon the same place. One year they appeared upon a neighbouring estate in great force and ran over at least forty acres. The same thing occurred on three other estates."

The Acarus coffeæ or coffee mite, is so small as to be hardly perceptible to the naked eye. It is closely allied to the "red-spider" of the hot houses of Europe. Nearly all the year round, but chiefly from November to April, it feeds on the upper side of the coffee leaves giving them a brownish sun burnt appearance. Individual trees suffer from its attacks, but the aggregate damage from it is not great.

The Coffee Rat of Ceylon, the Golunda Elliotti, occasionally commits much damage, seemingly to get the bark, for they do not seem to eat the berries. With their long sharp incisors they bite off with great smoothness the smaller and younger branches generally an inch from the stem, and should the plants be quite young, just taken from the nursery, they bite them right off a few inches from the ground, and carry them to their nests in hollow trees. They appear irregularly, at intervals, from the jungles and there is hardly an estate that does not now and then receive a visit from them. The Natives of Ceylon say that their food in the jungles is a species of Strobilanthus, called Nilu in Singalese, and that the rats only issue from their forest residence and attack the coffee estates when their forest food fails.

The injuries from other animals are not serious. A squirrel, the Sciurus Layardi, which eats the coffee berries, is common on estates, the pulp alone is digestible, and the coffee beans are dropped on logs of wood and on the ground. Jackals and monkeys occasionally do the same: this is called parchment coffee. A deer will now and then come from the forest and nibble the tops of the young trees.

Mantis tricolor, *Neitner,* the Mantis of the coffee tree, is green, lower wings reddish, with large blackish spot at the posterior margin. The female is 1 inch long with 1⅜ inch of an expanse of wings. The male is considerably smaller. The eggs are deposited upon coffee leaves, in cocoon like masses, of ⅝ of an inch in length but drawn out further at each end. As to the remedies to all these plagues, Mr. Nietner tells us that several means of checking the extension of the bug have been proposed and tried. Amongst these, the introduction of the red ant: but their bites are so fierce and painful that the coolies refused to go amongst the trees while the ants were there. Rubbing off the bug by hand has been tried, but it can only be attempted upon young trees without crop, and Mr. Nietner, although allowing that an immense quantity of bug is thus destroyed, is nevertheless of opinion that the effect is but trifling. He thinks that the application of tar to the roots is a good suggestion, although he is obliged to admit that hitherto no important results have been achieved by it. He adds that high cultivation seems to have the effect of throwing it off. But as the bug seems to depend on locality, Mr. Nietner does not look for any beneficial result, so long as the physical aspect is unchanged. He thinks that if the open, warm airy pattenas were cultivated, which the experiments on a large scale, tried at Passelawa, show that they can be, the brown bug, which is the great destroyer, would not find the conditions favorable to its existence or, perhaps, if estates as a rule were made smaller than they generally are, if the reduction in acreage were counterbalanced by a higher system of cultivation, universally carried out, the bug would not be so numerous as it now is. (*Mr. Nietner.*) In the peninsula of India, Borer is a name given to the larva of certain coleopterous beetles, which injure coffee trees. There are two, the white and red borer and the chief of these is the Xylotrechus quadripes of Chevrolat. The large and rapid introduction of coffee growing into Ceylon and India has shown that the plant is liable to be attacked by many enemies and ignorance of that has been the cause of much loss. Coffee trees in Coorg, have also been injured by the rot, a disease resulting from improper pruning. The rot attacks and decays the centre of the stem. In Coorg when the tree is attacked by the borer the leaves become yellow and droop. The insects are generally about the diameter of a small quill, are always confined to the wood and never enter the bark until the larva has done its work, passed through the pupa stage and is about to escape in the form of a beetle. The eggs are deposited by the females near the root of the tree and the pupa borers tunnel up the heart of the plant.—*Nietner on Dr. Bidie on Coffee Planting.* See Coffee.

BUGSURIA. A rajput clan in Muradabad.

BUGTEA, Hind. A bindoo devotee.

BUGTI. A wild Baluch tribe on the western bank of the Indus near Shikarpore in the hills east of Lehrat. They are one of the great Rhind tribes, the number of whose branches are forty-four. Though reckoned Balooch they are not of the Brahui stock, and their traditions allege that they imigrated ages ago from Demascus and Aleppo. Their language is the Jetki, in common with that of the other inhabitants of Cutch Gandava and mard-i-Rhind, means a brave man. The Rhind of Cutch Gandava are of the Utanzye divisions. The other Rhind tribes reside as under,

Utanzye, at Suran.
Dumbki, „ Lehri.
Jakrani, „ „
Doda Marri, Kahan.
Mandarari, at Rodbar.
Bugti, hills east of Lehrat.
Sing-Saloh and Terikiat.
Homorari, at Tambu.
Push, „ Johan.
Jamali, „ Rojan.
Kallui, „ Lup.
Kuchik, „ Kirta.
Pugh, „ Kajuri.

Of these Rhind tribes, the Dumbki, Jakrani, Bugti and Doda Murri, have always been distinguished by their rebellious and predatory habits. The Marri tribe is considerable and inhabit the eastern portion of Kutch Gundava, and a peaceful and obedient portion of the tribe are in the hills west of the province below Jell. A large portion are at Adam-Marri, on the S. E. Frontier of Sindh. The Marri of Kutch Gandava are notorious for their lawless habits. They and the Maghazzi seem to have emigrated from Mekran to Kutch Gandava, at different periods and to have become incorporated with the Jut cultivators. The Magazzi are probably of the same race as the Rhind, though the two are deadly enemies. See Kelat.

BUI—? Seemingly from Bhoom, Hind, and Boom, Persian, land, uncultivated land, or the earth or ground.

BUI, in northern India, is (1) the Crotalaria Burhia; (2) Agathotes, *Sp.*, (3) Francœuria crispa; (4) Ballota limbata; (5) Plectranthus rugosus; (6) Ærua bovii; (7) Panderia pilosa.

BUI-CHOTI, Hind. (1) Anabasis multiflora, also (2) Panderia pilosa which, however, as also (3) Ærua bovii are also called Bui-kalan.

BUI-MUNG, Hind. and Bui-Singh, Hind. Arachis hypogea, Linn. Ground nut.

BUI MADARAN, Hind. Achillea millifolium, Artemisia Indica.

BUHADUR, Hind. Pers. In India, a mahomedan title, as Sir Salar Jung Bahadur, G. C. S. I. it is the second titular honor coming after Jung.

BUHADOOR-KHEYL, A town in the district of Kohat, which has salt mines near it.

BUHI, Hind. A day-book a ledger, a register.

BUHI-KHATA, Hind. A merchant's day book.—Buhi-putwari, a village accountant's register.

BUHIRA, Beng. Terminalia rubrica.

BUHOOARI, Beng. Cordia myxa; C. latifolia.

BUHOW. A tribe lying south of Kashmir, they are little re-claimed from barbarism, either by hindu or mahomedan conquerors.

BUHRSTONE, A quartzose rock containing cellules, used for grinding wheat.

BUHRUPIA, Hind. Lit Many faced from Bhao, many; rupa, countenance; they are mimics and singers in northern India, many are mahomedans.

BUHU, Hind. A bride; Bridal fees given to a zemindar by a ryot on the marriage of the ryot's daughter.

BUHURA, Beng. Terminalia Moluccana.

BUILDING STONES. In the south of India, and in the peninsula of India generally, nearly all the most ancient buildings remaining, are built of stone, while the edifices of the past five hundred years, comprising some of the most stupendous piles, are of brick. The great religious institutions of Sri Sailam in Cuddapah, at Conjeveram, Chellambram, Srirangam, the temples at Tanjore, Gangondaram and Tribhuwanam, the ruins at Bijanagar, Bijapore, Gogi, and Gulburgah, the pagoda at Leepichi in the Bellary and that at Tarpatri in the Cuddapah district, are monuments of ancient hindoo and mahomedan art. Those connected with architecture, sculpture and painting, called into being by the exigencies of religion, always the best stimulus to works of design, have suffered more from sectarian zeal than the ravages of time, but they are widely scattered over the length and breadth of the land. Sculptured stones, fortifications, temples and works of irrigation, are found in every direction, and not only impart a knowledge of the state of science and civilization at various periods, but throw a valuable light on this and other subjects of inquiry.

At a period geologically recent the present peninsula of India was a triangular island bounded on each side by the eastern and western ghats, converging to Cape Comorin, while the base of the triangle was formed by the Vyndhya mountain range from which an irregular spur, forming the Aravalli mountains, extends northwards, while between the northern shore of this island and a hilly-country which is now the Himalaya mountains, ran a narrow ocean strait. The bed of this strait became covered with debris from the adjacent Himalaya on its northern shore and with this debris became entombed many and various animal remains. All that ocean strait has since been upheaved, and forms now the plains of India, with the long, nearly level, valleys in which flow the Ganges and the Indus, and has brought to view the many sedimentary rocks, sandstones and limestones which had been forming from prior ages. Another sea had existed near Nagpore westwards towards Ellichpore and easterly towards the affluents of the Godavery, where sandstones and fossils and coal occur. That part of the centre of the ancient Island now forming the province of Aurungabad is a great volcanic out-burst of trap-rock in many places flowing over and covering sedimentary rocks: and the part to its east, in the province of Hyderabad is a vast plutonic out-burst of granite. On the south of this granite and volcanic rock, had been another estuary, extending in latitude from North of Madras to the Kistnah, and in longitude from the Bay of Bengal up the Kistna and Peunar to the sources of the Gutpurbah and Malpurbah, and it is now filled with distorted, broken, upraised limestone, blue slate and sandstones, from near Curcumbarry, Tarputtry, Cuddapah, Kurnool to Kaludghee and Belgaum. To the South of that narrow gulf is the great granite tract of Bellary and Mysore succeeded further south about Trichinopoly and Madura with other limestone beds, both fossiliferous and non-fossiliferous and it is from these volcanic plutonic and aqueous rocks that building stones are drawn.

Laterite rock, a clay iron ore, seems peculiar to India. It covers the western coast almost continuously, and for the most part up to the very foot of the ghauts, from near Bombay to Ceylon. It is found in detached beds along the Coromandel coast, near Madras and Nellore, Rajahmundry and Samulcottah, extending into Cuttack. It caps the loftiest summits of the eastern and western ghauts, and some of the isolated peaks in the table land in the interior, and it covers all the country around Beder. It occurs in the Southern Mahratta Country, Mysore, Salem, Coimbatore, South Arcot, the Carnatic, and Tanjore: it is found in Berar, near Oomraoti, in Malwa, and in many parts of Bengal and Ceylon. It fringes the shores of Burmah, Malacca, and Siam, and appears on the coast of Singapore and Sumatra. It is found in boulders and rolled masses all along the Malabar Coast from Bombay north to Gogo in the Gulf of Cambay, beyond the region of the formation itself Pieces of it have been met with three hundred feet under the surface, in the blue clay beds at Calcutta, as also in similar beds of lesser thickness in Bombay, and close by Cambay and Kurrachee: so that the formation at one time was probably much more extensive than at present. Its colour is of a red irony or brickdust hue, sometimes deepened into dark red. It is marked with whitish stains, and is occasionally cellular or perforated with tubiform holes. It rarely if ever contains either crystals or organic remains, is never stratified or columnar, and generally spreads out in vast sheets on the surface of the plutonic or volcanic rocks. When the upper surface is cleared away, the rock below is found soft and easily cut into blocks of any form. It quickly hardens and darkens in hue by exposure to the air, and is not at all liable to decomposition or injury from the weather. The Arcade Inquisition at Goa is built of it, St. Mary's Church, Madras, and also the old fortress of Malacca.—*Newbold. Asiatic Transactions.*

Trap-Tuffa.—A curious variety of trap-tuffa sometimes white, sometimes greenish or purple, found in Bombay and many other parts of India, resembles laterite in the quality of being easily cut when raised, afterwards hardening on exposure to the air. It is used as a building-stone, and suits well for basins, troughs, and aqueducts: it is not very extensively employed.

Littoral-concrete is a variety of rock which has not hitherto found a specific place in geological catalogues: the name has been conferred on it from its being invariably found close by the sea-shore, and from its resemblance to the artificial stone formed by the cementation of sand, gravel, or other coarse material, by lime-water or mortar. It is composed of the material prevailing on the shores—of shells, sand, gravel, and pebbles, and varies in its character, with the rocks in the neighbourhood,—being micaceous towards Cochin and Tellicherry, from the quantity of sand and other nodules from the granite and gneiss; gravelly to the north of Bombay, and around it, composed almost entirely of fragments of shells. Sir Erskine Perry states that this strange variety of rock is to be found all along the Himalayas, and prevails extensively in Southern India. We have not observed it mentioned by any geologist, but have no doubt of the correctness of Sir Erskine Perry's statement. It is to be met with only in the regions where rains abound. Along the shores of Sind, Arabia, and the Red Sea, though the material composing it is abundant in a position similar to that in which it exists on the Malabar Coast, it is nowhere cemented into stone. Even here, indeed, the cementation is far from invariable: in one part of the esplanade we have loose sand on the surface, and concrete beneath: at another, sand or concrete, as the case may be, form the surface throughout to the rock: and in a recent excavation, concrete was found for the first twenty feet, resting on a bed of fine sand perfectly loose. It is frequently found to rest—as, for example, at Sewree and Mahim—on a bed of blue clay filled with kunkur and mangrove roots, offering evidence of a depression from the time the mangroves grew at high-water mark, so as to permit the gravel deposit to accumulate. The whole must then have been raised by a second upheaval to its present level. The principal quarries of these are at Versova, about twenty miles to the north of Bombay, where the shore is sheltered by a vast dyke of basalt formerly submerged. The sand, which seldom extends more than a few inches down, is first removed, and the rock is smoothed on the surface. A space about twelve feet each way is next divided into slabs one foot square,—the grooves between them being cut with a light flat-pointed single bladed pick. These are raised successively by a tool something between an adze and a mattock, a single stroke of which is in general sufficient for the detachment of each from its bed. The blocks thus cut out and raised being thrown aside, the bed is once more smoothed, and the operation resumed till the pit reaches the depth of six or eight feet, when, it being no longer convenient to remove the stones by hand or basket, a new pit is cut. This variety of building material is brought in vast quantities to Bombay where a large portion of the native house are built of it. It is not very strong, but with the admirable cement employed with such lavish hand, it makes a good and economical wall.

Trap.—In the Deccan the most massive structures are raised and carved from trap, with a delicacy and correctness quite astonishing. The favourite material for the over ground tombstone, is basalt, and, after many hundred years, the Arabic letters, carved in relief, are as sharp as on the day they were first cut. The vaults and domes of tombs and temples are commonly bolted with iron from top to bottom, and in many cases, instead of scaffolding, the structure is surrounded with a rough wall, ten or twenty feet off, the interval between being filled up with earth: a long inclined plane serves for raising the stones. A magnificent structure of this sort, the tomb of one of the Gwalior princes, has stood half finished near Poona since the early part of this century, and here native architecture may be seen in perfection in all stages of advancement. The only building materials at the Bombay presidency, beside that already described, consist of greenstone, trap, and a fine grained variety of nummulite like Bathoolite,—called, from the name of the place whence it comes, Porebunder stone.

Bricks are largely used, all over India, laterite, clay and in the Mauritius stone and slabs of coral rock. In many parts of Bengal, wattle-work is in use.

Since the Indian railroads were commenced, with their great spanning bridges, the rocks of all their neighbourhoods have been largely utilized and buildings formed of the greenstones, granites, lime-stones and sandstones are now everywhere to be seen. Throughout the great volcanic district of the Deccan, the various kinds of greenstone are largely used. On the blue slate formation, along the vallies of the Kistnah and Tumbudra, and on the compact limestone formation on each side of these rivers, houses have ever been formed from these materials, but the favourite rock for ornamental purposes in the buddhist and hindu temples of peninsular India is the dark basaltic greenstone, often, from its high polish, called black marble. In an ancient underground temple at Bejapore this basalt is alone employed. The brahminical and buddhist caves of Ellora and Adjunta and the smaller caves at Mominabad are excavated out of the greenstone and greenstone amygdaloid. At Ellora they are about twenty in number, in the face of the mountain, almost scarped as it falls into the valley of the Godavery; a similar number are at Adjunta in a ravine near the scarped ghats overlooking Khandesh. Those on the right bank of the Irawady near Prome look on the river. Large quantities of the whitish yellow Poreebunder stone are now brought into Bombay. In Madras and Calcutta, and in India generally, brick is the ordinary building material. In the whole of Burmah and the Tenasserim provinces, the houses are built of wooden planks with shingled roofs.

Of the rocks of aqueous origin, the sandstones, slates and limestones, the whole of the valley of the Kistnah and great parts of the valleys of its affluents the Gutpurbah, Malpurba, Bheema, Tunga, Bhoodra and Tumbudra, and much of the valley of the Godavery and of the valleys of its northern affluents, have limestone, clay slate and sandstone rocks, and the houses and more extensive buildings are all built of these. The limestone of Kurnool, westward to the Bheemah is an excellent building material,

The whole of the Kymore range in Shahabad is described as of mountain limestone which also shows itself in the valley of the river Sone as far at least as Mungeysur peak in Mirzapur, and it crops up at Rhotas forming a sloping base to the precipitous sandstone rock. Below the mountain limestone is one of a plush grey colour mixed with occasional crystals of calc spar; this, like the Kurnool stone, is admirably suited for lithography. Below the latter, in Kymore is a limestone of a hard tenacious almost indestructible composition admirably suited for building,

M. R. Bingham adds the following remarks on the sand-stones of the Kymore range, which have a high commercial value at Chunar and Mirzapore being used as flagstones, and for ornamental purposes. The stones at those places owe their advantages to the proximity of the Ganges, which affords an easy river carriage; otherwise they are the worst and most destructible description of stone in the range. The millstones of Chynepore, Sasseram, and Tilowthoo (perhaps also Ackbarpore), are famous, but must always be dear in a distant market for want of river carriage. The Soane causeway and the Koylwan-railway bridge are built of the dense sandstone of Sasseram, little quantities are found in the higher portions of the range towards Rohtas. The best stone, while easily workable, is almost as hard as granite, and may be had of any colour, white, crystalline, blue, grey, and all shades to a dark red.

Flexible sandstone, is found at Ulwar, Jhend and Jubbulpore.

At the Panjab exhibition held at Lahore there was a good collection of building materials from Sahi Balabgarh, in the Delhi district, including the red, the spotted, and the light colored sandstone, so much used in the large buildings of Upper Hindustan; and from the same place were polished blocks of white marble, and of a pretty dappled gray marble called Narnaul marble, which last was exhibited from the Hissar district.

From the Kangra district there were grey limestone, sandstone of two sorts, both good for building, and granite. Some nice workable sandstone sent from Madhopore, must come from the hills, above that place. From Kashmir there was some black marble and some polished slabs of serpentine, which is found at Tashgam in little Thibet. The Salt range Jhilam and Shahpur districts possess good building stones, sandstone and calcareous sandstone; from Jhilam were specimens of marble which might become useful for building, with gypsum or alabaster of the same hills.

BUIN, HIND. of Kashmir, Platanus orientalis. See Bonin,

BUIS, FR. Box wood.

BUIST, Dr. George, L. L. D., a voluminous writer on general and scientific subjects. He belonged to a family well known in Fifeshire and long intimately connected with the University of St. Andrews. The son of a Parish minister, there he studied. He was licensed as a preacher of the Scotch Church, though he did not exercise his gifts in that respect more than once or twice. At College he distinguished himself by his attainments in the mathematical and natural sciences, and successfully pursued the then rising study of geology. He gained the Highland Society's prize of fifty guineas for his survey of Perthshire, and thereafter devoted himself to literature and science. In 1832 he successively conducted four provincial newspapers, and as editor of the *Fifeshire Journal* obtained a high local reputation. In 1840 he was selected as editor of the *Bombay Times*, succeeding Dr. Brennan whose career was cut short by cholera in 1839, a year after the establishment of the paper. From 1840 to 1857, Dr. Buist continued to edit the journal, with the exception of two intervals of absence to Europe, when his own University conferred on him the well deserved degree of Doctor of Laws. The ability with which he conducted it secured for the *Bombay Times* not only a large circulation but great weight in England. He published an Overland Summary by every mail which reached a circulation of 3,000. As Editor of a Bombay paper, during the stormy periods of the Affghan, Sind and Sikh wars, as a vigorous and forcible writer who hated dishonesty and rushed to a contest with what he believed to be error sometimes too vigorously, Dr. Buist was engaged in many bitter controversies in his day. In 1858 he was appointed one of the Municipal Commissioners of Bombay, and in 1859, went to Allahabad to succeed the late Mr. Longden as Superintendent of the Government Press. It was as a scientific man that Dr. Buist most desired to be known. To all the scientific journals of India he was a voluminous contributor. In the reports of the British Association, and in the transactions of many of the Edinburgh and London Societies, his papers are to be frequently found. As a meteorologist, and in his knowledge of Physical Geography generally, he was equalled by none in India, surpassed by few in Britain. His whole career in Bombay was distinguished by benevolence, sometimes profuse. The Industrial School there was his creation. He died at Calcutta on the 1st October 18'—? The following were his separate contributions to scientific literature, Author of Manual of Physical Research: Report of Meteorological Observations at Bombay in 1842 & 1844, 1 Vol.—On the saltness of the Red Sea, *Bom. Geo. Trans.* Vol. IX. p. 39.—Catalogue of remarkable hailstorms in India, *Ibid*, p. 184, *Rep. Brit. Ass*, 1850.—Notice of remarkable meteors in India. *Bom. Geo. Trans.* Vol. IX, p. 197, *Rep. Brit. Ass.* 1849 & 1852.—Outline of the operations of the British troops in Sind and Affghanistan, *Bombay.* 1843, 1 Vol. 8vo—Annals of India, for 1848-49. *Bombay*, 1849, 1 Vol. 8 vo.—On floods in India, in 1849, *Edin. Phil. Jl.* (Jameson's) 1851, Vol. II. p. 52.—On the incrustrations of steam pipes and boilers in marine engines—occasional deposits of electrotype copper, *Bl. As Trans.* 1850—On the evidence of the general upheaval and depression around the sea shores of India and Northern Europe, *Ibid*, 1851, *Edin. Ph. Jl.* 1851, *Bom. Geo. Trans.* Reports, 1850-51; *Rep. Bri. As.* 1851; Geology of Perthshire, Prize Essay of the Highland Society, 1838; (See Lyell's Principles of Geology, 4th and subsequent editions; Reports of the Fifeshire Literary Society and London Naturalist 1839. On the aneroid as a survey instrument in India, *Lon. Geo. Trans.* 1851.—On the visible appearance of the seasons in western India, without reference to instrumental observation, *Rep. Bril. Ass.* 1851. Desultory remarks on the Oriental Sculptures on the Runic stones of Scotland, *Bom. Ass. Trans.* Vol. II. p. 48; *Bl. As. Trans.* 1851.—On gates, and wire fences for gardens and compounds in India, *Bom. Agri. Trans.* 1842. —On a cheap form of a thrashing mill employed in England and well suited for India, *Ibid.* —On the various methods of grafting young and full grown trees, *Ibid.* 1849 and 1852. *Bombay Times, Nov.* 1849.—On arcades in the vicinity of hospitals, for the use of convalescents, *Ind. Jl. of Med. Sc.* 1845, p. 725. —on the various forms of windmills in use in Europe and Egypt, with water-raising machines made use of in the East, with numerous illustrations, *Bombay*, 1848, folio.—On the connection betwixt Oriental and Scandinavian antiquities, *Bl As. Trans.* 1852.—On the volcanoes, volcanic phenomena, hot springs, &c. betwixt the line and 32° N., *Bom. Geo. Trans.* 1852, Vol. X.—On the geology of Bombay and the adjoining islands.—*Ibid, Dr. Buist's Catalogue.*

BUITENZORG, near Batavia, is forty English miles inland, five hundred feet above the sea with high hills around, here thunder-storms occur between 4 P. M. and 8 P. M.—*Maury's Physical Geography, p.* 142.

BUIT-SAGUNTANG-GUNTANG, also written Bukit-Saguntang-G[illegible]ang a mountain in Palembang, now known by the name Bukit-Se-Buntang, from its site, the Malay race emigrated.

BUJ, Guz. Hind. Cork.

BUJ, Hind. Acorus calamus.

BUJAN, a river near Dooblana in Kotah.

BUJI BABBAR, Hind. Eriophorum comosum.

BUJLO, Hind. Oreoseris lanuginosa.

BUJRA, Hind. Cleome ruta.

BUJJERBHANG? Also Tutun? Arab. Tobacco.

BUJOOR, Beng. Corypha elata.

BUJRA, Beng. Penicillaria spicata, Bullrush or Spiked Millet.

BUJURAYI, Tel. A kind of fern, found at Masulipatam.

BUJRA, is a large and commodious, but generally cumbrous and sluggish, boat, having more pretensions to comfort than speed, and is used for journeys up the Ganges. See Budgerow.

BUK, Beng. Agati grandiflora.

BUK, Hind. Land recovered by the recession of a river.

BUKA, Beng Sans. Agati grandiflora syn. of Coronilla grandiflora.

BU KALAMUN, Arab. Chameleon.

BUKAMPADARUKA, Sans. Cordia myxa.

BUKAN, Hind. Eclipta erecta, also Lippia nodiflora.

BUKAYARI JIYADHA, Beng. Aquila nævia.—*Gmel.*

BUKBUR, Ar. Cathartocarpus fistula.

BUKAYUN, also Bukain, PERS. HIND. Melia sempervirens.

BUKBUR, ARAB. Fruit of Cassia fistula.

BUKCHI, HIND. Conyza anthelmintica.—*Willd.*

BUKHT-UN-NASR, ARAB. Nabonassar.

BUKHO, the Karen priest and physician, he has considerable influence. See Karen.

BUKHTIYARI. See Bakhtyari; Kurdistan.

BUKHUR, ARAB. Incense or fumigation.

BUKI, HIND. Equisetum debile.

BUKIT GADONG, a locality in the Malacca district occupied by the Jakun race. See Jakun.

BUKIT-SAGUNTANG-GUNTANG. See Buit Saguntang Guntang. Johore.

BUKKAPU CHETTU, TEL. or Bakamu chakka. Cæsalpinia sappan, *L.*

BUKKUM, BENG. HIND. Sapan-wood Bukkum wood. See Cæsalpinia. Dyes.

BUKKUN, MAR. Melia bukain.

BUKKUR. A fortified island in the Indus river. It is in the centre of the stream, nearly opposite the town of Rori and on the western bank is Sukkur, now called Victoria on the Indus. Near these places is the site of Arore, or Alore, the capital of Sinde in remote antiquity: but a bridge over the stream which branched from the Indus, near Dura, is almost the sole vestige of this capital of the Sogdi of Alexander. On its site, the shepherds of the desert have established an extensive hamlet; it is placed on a ridge of siliceous rock, seven miles east of the insular Bukkur and free from the inundations of the Indus. The Soda tribe, a powerful branch of the Pramara race, has ruled in these countries from remote antiquity, and, to a very late period, they were lords of Omrasoomra in which division was Arore. According to Burton, however, the site of Arore is four miles East of the Indus at Sukkur and Rori. Sehl and his capital were known to Abul Fazil, though he was ignorant of its position, which he transferred to Debeil, or Dewul, the modern Tatta. This indefatigable historian thus describes it, "In ancient times there lived a raja named Sehris (Sehl), whose capital was Alore, and his dominions extended north to Cashmere and south to the "ocean." Sehl, or Sehr, became a titular appellation of the country, its princes, and its inhabitants, the Sehrai.

Alore appears to have been the capital of the kingdom of Sigertis, conquered by Menander of Bactria. Ibn Haukul, the Arabian geographer, mentions it: but a superfluous point in writing has changed Arore into Azore, or Azour, as translated by Sir W. Ouseley. D'Anville mentions it, but, in ignorance of its position, quoting Abulfeda, says, in grandeur "Azour est presque comparable a Meoltan.—*Tod's Rajasthan, Vol. I. p.* 42. *Burton's Scinde, Vol. I. p.* 166. *Postan's Pers. Observ., p.* 30.

BUKOLI, HIND. A green caterpillar, destructive of rice crops.—*Ell.*

BUKSHI, HIND. PERS. From Bukhshidan PERS. to pay; a commander of a division of troops. A paymaster with the duty of inspection and audit. See Bakhsh.

BUKUL, BENG. MAR. Mimusops elengi.

BUL. SANSC. force, strength, pronounced in Hind: Bal, also Bil.—*Ell.* See Bal.

BULAHUR, HIND. also buladhur, from bullana, to call; a village servant in Allahabad district, serving as a guide or messenger.—*Ell.*

BULAK, the Latopolis of the ancient Greeks, is at present, a very considerable town, and the port of Cairo.—*Niebuhr's Travels, Vol. I. p.* 63.

BULARATI, a name of Indra as the destroyer of the giants.

BULAT, BENG. Phaseolus mungo.—*Linn.*

BULBASSI, a Kurd race, composed of the following tribes:—

Kabaiz, the reigning family, consisting of about two hundred persons; 2. Manzoor; 3. Mamash; 4. Piran; 5. Rummook; 6. Siun and Taafah, who together make one tribe. The chiefs of tribes are called Muzzin. Each chief has a certain number of thieves, who rob for him; and his tribe makes him voluntary gifts of provisions. These are his only revenues. The price of blood among the Bubassi is twenty-two oxen, but it may be made up in other effects, to which often a nominal value is attached, more than twice the real amount, when the affair is to be compounded amicably. Their only laws are the usages of the tribe, and these are administered by the chief, assisted by the council of elders. No crimes are punished with death but adultery, seduction, and such like. The Balbassi will not bestow a girl in marriage on a person of another tribe or people. They have courtship among them, and carrying off a girl by the lover is common. When a chief dies, he is succeeded by the best or bravest of his family, with the common consent of his tribe. If his eldest son is incapable, the best of the brothers succeeds. When a chief is once nominated he cannot be deposed, and his authority is so well defined, that there are no instances of a chief ever having attempted to exceed them. In their own country the Bulbassi do not willingly acknowledge any superior, either Turkish or Persian; but when they descend into the regions of Karatchook they pay a tribute of sheep to the Bey. They are very fond of armour; and most of the principal people among them possess a complete suit of mail. The Bulbassi Koords have a most curious way of curing wounds. They sew the wounded man in the skin of a bullock fresh stripped off the animal, leaving only his head out ; and they leave him in it till the skin begins to putrefy. They say this never fails to cure the most desperate spear or sabre wound.—*Rich. Residence in Koordistan, Vol. I. p.* 133.

BUL-BHOG, HIND. Taking forcible possession of property; from Bul, force, and Bhog, wealth.—*Ell.*

BULBINE ASIATICA. Syn of Crinum Asiaticum.—*Willd.*

BULBS imported into India, for flowering plants, do not succeed well in general; this is owing in a great degree to their being disturbed ; the best plan with them is to prepare a good piece of ground somewhat raised, to throw off the heavy rains, and to plant each variety by itself in rows, keeping them clear of weeds. Every season, when they begin to grow, stir up the soil and add a little well decayed horse manure in India, the more nursing this species of plants receive the weaker they become, they seem to relish neglect, under which they flourish in the greatest beauty. If wanted to be grown in pots, the soil should be three parts sand and one vegetable mould and decayed manure. When the bloom appears, a watering of liquid manure once or twice a week will aid them greatly. After the leaves are decayed, put them in a dry situation till another season ; when they begin to show signs of growth ; let a slight watering for some time be given to enable them to form new roots, then take out one inch of soil, and put in the same quantity of decayed horse manure mixed with little sand, after which water freely, till the flowers are past when they should be *gradually dried.*—*Riddell.*

BULBUL, PERS. A term employed among the various mahomedan nations of Southern Asia, to designate birds belonging to very numerous species and many generic divisions of a natural family. The Persian bulbul is a species of true nightingale, it is the Luscinia major (or *Sylvia philomela* of Temminck) and is known as the Bulbul-i-bostan in India, where it is frequently imported as a cage bird. In Persia it is often called the Bulbul-i-hazar dastan, the bulbul of a thousand notes, and its genus, Luscinia, is very closely allied to the small thrushes of America. The Persians delight to speak of this favorite song-bird, which Moore has made widely known, telling us that

There's a bower of roses by Bendemeer's stream,
And the nightingale sings round it all the day
long,
In the time of my childhood 'twas like a sweet
dream
To sit in the roses and hear the birds song.
That bower and its roses I never forget,
But oft when alone in the bloom of the year,
I think, is the nightingale singing there yet ?
Are the roses still bright by the calm Bendemeer?

It is migratory, making its appearance with the roses in April and disappearing with the rose, at the end of summer. According to Zakary bin Mahomed-al-Kaswini, the Persians say the bulbul has a passion for the rose, and laments and cries when he sees it pulled. The English nightingale, Luscinia philomela (*Philomela luscinia*) is migratory through Europe, N. Africa, and Asia Minor, but is not known in India or Persia.

There is no true nightingale, wild, in British India; but the 'Shama' Cercotrichas macrourus, undoubtedly the finest song-bird of this part of the world, is not unfrequently designated the Indian Nightingale, a misnomer which only leads to confusion. It is common to India and the Malay countries ; and there is a second species (*C. luzoniensis*) in the Philippines, and a third (*C. erythropterus*) in Africa. The esteemed Indian songster is le Merle tricolor de longue queue of Levaillant. (*Oiseaux d' Afrique pl.* 114.) We may remark that the Orocetes cinclochyncha is also termed Shama in the Madras Presidency. The Bulbul of Southern India is not even a song bird but the term is applied to the Bulbul-i-gul-dum, Hœmatornis cafer, which is a common cage bird and, like quails and cocks, trained to fight, and when pitted against an antagonist, it will sink from exhaustion rather than release its hold. The Hussaini bulbul, also called the Shah-bulbul, is of another sub-family, the Myagrinæ, and is known as the Paradise-flycatcher. It is of a chesnut colour for many months, but becomes white in the breeding season. It is a very graceful bird with very long tail feathers and it is a pretty sight to see it flitting from tree to tree: how the birds prevent the long tail feathers from becoming entangled in the thorny trees, is very curious. In Ceylon the chesnut bird is called the Fire thief and the white bird the Cotton thief. Its colouring is chaste and its movements graceful. Mr. Layard has often watched them, when seeking their insect prey, turn suddenly on their perch and whisk their long tails with a jerk over the bough, as if to protect them from injury.

Dr. Jerdon arranges the Brachypodidæ into four sub-families, the Pycnonotinæ or true Bulbuls, the Phyllornithinæ or green Bulbuls, the Ireninæ or Blue-birds, and the Oriolinæ or Orioles, and ; of the true bulbuls, he names

Hypsipetes psaroides, *Vigors*, the Himalayan black bulbul.
„ Neilgherriensis, *Jerdon*, the Neilgherry do. do
„ Ganeesa, *Sykes*, the Ghat do do
„ McLellandi, *Horsf.* The rufous bellied bulbul.

Hemixos flavala, *Hodgson*. The brown eared bulbul.
Alcurus striatus *Blyth*. The striated green do.
Criniger ictericus, *Strickland*. The yellow browed bulbul.
,, flaveolus, *Gould*. The white throated do.
Ixos luteolus *Less*. The white browed bush do.
,, xantholæmus, *Jerd*. The yellow throated bush do.
Kelaartia pencillata, *Blyth*. The yellow eared bulbul.
Rubigula gularis, *Gould*. The ruby throated do.
,, flaviventris, *Tickell*. The black crested yellow do.
Brachypodius poiocephalus *Jerdon*. The Grey headed do.
Otocompsa leucogenys, *Gray*. The white cheeked crested do.
,, leucotis *Gould*. do do eared do.
,, jocosa, *Linn*. The red whiskered do.
Pycnonotus pygœus, *Hodgson*. The common Bengal do.
,, do hæmorhous, *Gmelin*. do Madras do.
Phyllornis, Jerdoni, *Blyth*. The common green bulbul.
,, Malabaricus *Lthm*. The Malabar do do.
,, aurifrons. *Temm*. The gold fronted do.
,, Hardwickii *Jard and Selb*. The blue winged.
Jora Zeylonica *Gmelin*. The black headed do.
,, typhia *Linn*. The white winged green do.
,, scapularis, of the Archipelago.
,, Lafresnayii of Arakan.

—*Jerdon, Birds of India, Layard's Nat. Hist. of Ceylon. Cal. Rev.* See Birds.

BULBUL-I-BOSTAN, also Bulbul-i-hazardastan Pers. Luscinia.

BULBUL-I-GUL-DUM, HIND. the Hæmatornis cafer.

BULCHA, a pass in Kamaon, in L. 30° 28' and Long 80° 14' over a high ridge, extending E. and W.

BULD, HIND. Horned cattle, Buldea a cowherd.—*Ell.*

BUL-DAN, amongst the ancient hindus, the sacrifice of a bull to Balnath, the lord Bal, the sun. Balnath was the deity worshipped by the Saura races in Guzerat and was identical with the Syrian Bal.

In this ancient sacrifice, which has long ceased, four altars were erected, for offering the flesh to the four gods, Lacshmi-Narayana, Umia-Maheswar, Brimha, and Anunta. The nine planets, and Prithu, or the earth, with her ten guardian deities, were worshipped. Five—*Vilwa*, five *Khudiru*, five *Pulashu*, and five *Udumburu* posts had to be erected, and a bull tied to each post. Clarified butter was burnt on the altar, and pieces of the flesh of the slaughtered animals placed thereon. Another description says that a covered altar had to be prepared; sixteen posts had then to be erected of various woods; a golden image of a man, and an iron one of a goat, with golden images of Vishnu and Lacshmi, a silver one of Siva, with a golden bull, and a silver one of Garuda 'the eagle' were placed upon the altar. Animals, as goats, sheep, &c., were tied to the posts, and to one of them, made of the wood of the mimosa, was to be tied the human victim. Fire was to be kindled by means of a burning glass. The sacrificing priest, 'hota,' strewed the grass called d'hub or immortal, round the sacred fire. Then followed the burnt sacrifice to the ten guardian deities of the earth—to the nine planets, and the hindu triad, to each of whom clarified butter was poured on the sacred fire one thousand times. Another burnt-sacrifice, to the sixty-four inferior gods, followed, which was succeeded by the sacrifice and offering of all the other animals tied to the posts. The human sacrifice concluded and the sacrificing priest offered pieces of the flesh of the victim to each god as he circumambulated the altar.

At the present day the bull is often devoted by hindus to the gods, on the 11th day of mourning for a near relative. In this a marriage ceremony is performed, called "brik-hotsurg," or abandoning of a bull, brik means a bull and also the zodiacal sign, Taurus. The brikhotsurg marriage ceremony is performed in the name of the bull after which the animal is set free to roam, and in some hindu towns of India, these devoted cattle infest the streets and roads, are very numerous and very troublesome. In several Mahratta towns they were often let loose. In Benares, they are still in numbers, and whatever they may do or wherever they may lie down, they may be patted, spoken to, or even shouted at, but never struck. They are called Bijar, Saur, Brahmani bull. A similar marriage ceremony is performed with a well and orchard.—*Ward on the Religion of the Hindus, Vol. II. p.* 263. *Elliot,* 260. See Bunotsurg; Julotsurg.

BULDEO, in Vrij is a shrine of Baldeo who is supposed to be the Hercules of the East and West. His club, a ploughshare, and his covering a lion's skin. See Baldeva.

BUL-DHOON, the valley of Sookeyt Mundi in the Kohistan of Jhullundhur. It is also called Sookeyt Mundi, also Kangra Bhawan, also Pallam Pattiar. The natives of the Buldhoon and Kulu have sallow complexions and seem of the same race as the natives of Bushair. The men are tall and strong, but few of them are handsome. Many of the young women are pretty but at the age of 20 or 25, they become coarse and stout. When Mr. Masson passed near there, it was the practice for the women, gaily dressed, to assemble and greet a stranger with songs, as he entered each village, for which honor he was expected to give a rupee to each knot. The men and women dress almost similarly. See Jhullundhur, Kohistan.

BULEA JOREE, a river near Chandura, in Comillah.

BULESUR, a sub-division of the Gujur race —*Ell.*

BULGARIAN. The wild people who dwelt or wandered in the plains of Russia, Lithuania, and Poland, might be reduced in the age of Justinian, under the two great families of the Bulgarian and Sclavonian. Those of the former nation, who touched the Euxine Sea and the Mæotis, derived from the Huns their name or descent. The evidence of language attests the descent of the Bulgarian from the original stock of the Sclavonian, or more properly Slavonian race: and the kindred bands of Servian, Bosnian, Rascian, Croatian, Wallachian, &c. followed the standard or example of the leading tribe. The first king of Bulgaria, in its present extent, was in A. D. 640, and their empire continued until 1017, when they were ruled by a lieutenant of the Greek Empire.—*Chatfield's Hindoostan, p.* 289.

BULGAR, JUNGLI, HIND. Boletus igniarius.

BULGHAR, a town in Russia, where Russia leather is made; also Russia leather, corrupted into Bulkhal. In Persia a kind of bottle, to hold nearly three quarts, is made of bulghar, to be used by horsemen travelling. It has a wooden stopper and hangs from the saddle or girth, and swings under the horse. It is called "matahrah" or "Matarah."—*Ouseley's Travels, Vol. I. p.* 247.

BHULKHAL, PERS. Russia-leather. Fraser believes that this word is a corruption from Bulghar, the place in Russia, from whence this leather reaches Persia.—*Fraser's Journey into Khorasan, p.* 69.

BULKOKRA, BENG. Adelia castanicarpa.—*Roxb.*

BULKUT, HIND. rent taken in advance.

BULI, BENG. HIND. Syn. of Sterculia urens.—*Roxb.*

BULJI-WANLU, TEL. In Southern India, a body of sudras.

BULL,

Al-Taur	AR.	Nandi	HIND.
Taur	CHALDEE.	Nar-gao	PERS.
Shur	HEB.	Mar	TAM.
Taurus	LAT.	Eddu	TEL.
Bail	HIND.	Basava	„

The bull has always held a prominent place in the religious systems of Asia. The sacred bull of the Assyrians, the Apis of the Egyptians, and the bull Nandi of the hindus are evidently identical types. The golden calf of the Israelites will not be forgotten, and for the use of the figure of the bull as a sacred ornament by the Jews, the brazen sea in the temple of Solomon may be cited. (1 *Kings, VII.* 25.; 2 *Chron. IV.* 4, 5, *and Jeremiah, iii.* 20.)That, in Assyria, Baal, or the Supreme Deity, was worshipped under the form of a bull or heifer may be inferred from Tobit, i, v. 5, "Now all the tribes which together revolted, and the house of my father Naphthali sacrificed into the heifer Baal," but the reading is doubtful.—(*Layard, Nineveh, Vol. II. p.* 474-5.)

In the English Scripture the word "Bull" is the translation of several Hebrew words, *shor*; a cow, "theo," a wild bull; abbire, "tor." A calf was in Hebrew, "Ogel," in Arabic "Adjel," Jeremiah xxxiv; 18 and 19, tells of a sacrificial rite of splitting a calf in two and men passing between the parts and Bull worship is noted in 1st Kings XII and 28, 29, 30, the images being of gold. In ancient Western Asia, Bal and the brazen calf were specially worshipped on the fifteenth of the month, (see 1 King. XII. 32) and, at present, in India, the sacred day of Bal-Eswar, with his Vahan bull Nandi, is the "amavasa," the moonless fifteenth day of the month. The bull was offered to Mithras by the Persians; and, opposed as it now appears to hindu faith, he formerly bled on the altars of the sun-god, on which not only the Buld-dan, *offering of the bull,*' was made, but human sacrifices. We do not learn that the Egyptian priesthood presented the kindred of Apis to Osiris, but as they were not prohibited from eating beef, they may have done so.—(*Tod's Rajasthan, Vol. I. p.* 514-15.) Apis, the sacred bull of Egypt was chosen by the priests of Memphis, for its black and white spots, and Mnevis, the sacred bull of Heliopolis, had nearly the same marks; but the Jews, in preparing their water of purification, were ordered (in Numbers, ch. XIX. 2) to kill a red heifer without a spot Amongst the Egyptians, the solemnities at the burial of Apis were entirely Bacchic. The priests did not wear the *nebris* or deer skin, but they wore the panther skin, and carried Thyrsus staves. The brazen calf, mentioned in Scripture as an object of worship by the Hebrews is still worshipped by hindus in India, often of brass, but oftener of stone. In India some of the images of the bull, are of colossal size. One, supposed to be the largest in the south of India, is to be seen at the Charmandi Hill in Mysore. It is carved out of a solid rock at the side of the hill and is approached by ascending 660 stone steps. Siva under the name of Mahadeva, or Iswara, is the tutelary divinity of the Rajpoots in Mewar, and from the early annals of the dynasty he appears to have been, with his consort Isani, the sole object of the *Gehlote* rajputs adoration. Iswara is there adored under the epithet of Eklinga, and is either worshipped in his monolithic symbol, or as Iswara Chao-mûkhi, the quadriform divinity, represented by a bust with four faces. The sacred bull Nanda, has his altar attached to all the shrines of Iswara, in India, as was that of Mneves or Apis to those of the Egyptian Osiris. Nanda has occasionally his separate shrines, and there is one in the valley of Oodipoor which has the reputation of being oracular as regards the seasons. The bull was the steed of Iswara, and carried him in battle; he is often represented upon it, with his consort Isa, at full

Colonel Tod tells us that the infant Bappa, son of Nagadit, when only three years old, was conveyed to the fortress of Bhandere, where he was protected by a Bhil of Yadu descent, Thence he was removed for greater security to the wilds of Parassur. Within its impervious recesses rose the three peaked (tri-cuta) mountain, at whose base was the town of Nagindra, the abode of brahmins, who performed the rites of the 'great god.' In this retreat passed the early years of Bappa, wandering through these alpine vallies, amidst the groves of Bal, and the shrines of the brazen calf. The most antique temples are to be seen in these spots—within the dark gorge of the mountain, or on its rugged summit,—in the depths of the forest, and at the sources of streams, where sites of seclusion, beauty, and sublimity alternately exalt the mind's devotion. In these regions the image of creative power appears to have been the earliest, and at one time the sole object of adoration, whose symbols, the serpent wreathed phallus (lingum), and its companion, the bull, were held sacred even by the 'children of the forest.' In these silent retreats Mahadeva long continued to rule triumphant, and the most brilliant festivities of Oodipoor were those where his rites are celebrated in the nine days sacred to him, when the Jain and Vaishnava mix with the most zealous of his votaries: but the strange gods from the plains of the Yamuna and Ganges have withdrawn a portion of the zeal of the Gehlote from their patron divinity Eklinga, whose dewan, or vicegerent, is the Rana. The temple of Eklinga, situated in one of the narrow defiles leading to the capital, is an immense structure, though more sumptuous than elegant. It is built entirely of white marble, most elaborately carved and embellished; but lying in the route of a bigotted foe, it has undergone many dilapidations. The brazen bull, placed under his own dome, facing the sanctuary of the phallus, is nearly of the natural size, in a recumbent posture. It is cast (hollow) of good shape, highly polished and without flaw, except where the hammer of the Tatar had opened a passage in the hollow flank in search of treasure. Amongst the many temples where the brazen calf forms part of the establishment of Bal-Cesar, there is one sacred to Nanda alone, at Naen in the valley. This lordly bull has his shrine attended as devoutly as was that of Apis at Memphis, nor will Eklinga yield to his brother Serapis. The changes of position of the Apis at Naen are received as indications of the fruitfulness of the seasons, though it is not apparent how such are contrived. The physiological worship of the god Eshwara, with this emblem the lingum, priapus or phallus, and his vahan, the bull Nandi or Basava, seems to have entered India on its western border. But it is now very general and Nandi, in stone or in brass, is to be seen everywhere, perhaps half a million of them are in India, generally seated, looking to the lingum. In Ceylon, to evrey herd of cattle there is a sacred bull who is supposed to exert an influence over the prosperity of the flocks; his horns are ornamented with tufts of feathers, and frequently with small bells, and he invariably leads the great herd to pasture. On starting in the early morning from the cattle kraal the natives address the bull, telling him "to watch over the herd; to keep the cows from straying, and to lead them to the sweetest pastures, so that they shall give abundance of milk," &c.—*Bunsen, Vol. I. p.* 432. *Tod's Rajasthan, Vol. I. p.* 222.

BULLA, Duk. Terminalia bellerica, Sans. Pavonia odorata.

BULLAN. A river near near Dulsing Serai in Muzzfferpore district.

BULLAR, Duk. and Hind. Dolichos catiany and D. cultratus. See Dolichos spicatus.

BULLEAH. A river near Bumouree in Almorah.

BULL FROG, of Malabar. Rana Malabarica.

BULL-HIDE. See Leather.

BULLI or BULLY TREE, Eng. Achras sapota. Diospyros sapota.—*Willd.*

BULL NANDA. See Bull: Belanus Nandi.

BULLOA. The Southern part of the district of Tipperah.

BULOOKUNBOON? Ferns.

BULOOSITOON ROOMANI; YUNANI. Punica granatum.

BULPAM, Tam. Bulpamu, Tel Soapstone.

BULRUSHES (*Typhaceæ*).

Goma	Heb.	Booree	Sindee.
Pun	Sindee.	Putera, riri	„

Bulrushes, so conspicuous in the marshes of Europe, extend also to similar situations in most parts of India. The leaves are in some parts of Europe employed in making mats and winter coverings for plants, as well as for stuffing chairs, putting between the staves of barrels. The leaves of "putera" and "reree" (*Typha elephantina* and *T. angustifolia*) are employed in making mats in North-West India. In Sindh the former is called pun, and its leaves employed for making mats and baskets. The pollen, like that of Lycopodium, is inflammable, and used as a substitute for it as in Europe. It is also collected in Sindh, and there called "booree." Elephants are fond of T. elephantina. It is a valuable sand binding plant and it is tied into bundles as a swimming float.—*Royle Fib. Pl. p.* 35. See Kellek.

BULTI. A name of Ladak. See Bhot, India, p. 316, 337. Ladak, Maryul, Tibet.

BULTISTAN, Tibet proper, the land of the Bult or Bhot. Bultistan is partly mahomedan of the Shiah sectarians. See Tibet. Bhot.

BUL TUL or SHUR-JI-LA a pass leading to Cashmere in L. 34° 10′ L. 70° 15′. The crest is 10,500 feet.

BULUH, Malay. A bamboo.

BULUH PERINDU, Malay. The plaintive bamboo, also called Bulu-ribat, the storm-bamboo, in the forests of the Malay peninsula, Sumatra and Java, the natives make holes in the forest bamboos and plaintive sounds issue, when the wind blows. It is a sort of Æolian pipe. See Bamboo.

BULUN, Sindi, the water hog, a porpoise? in the river Indus.

BULUNG, Jav. Plocaria candida, Nees. Eucheuma spinosa; Agar-agar.

BULUT TAGH, according to Captain H. Strachey, is that part of the Kouenlun chain, which is east of Samarcand and South of Khokand. Bulut-Tagh means the cloud mountain, but the Kouen-lun chain is also called the Belur Tagh which, according to Cunningham, is synonymous with Balti Mountain: other names for the chain are Mustagh; Karakoram; Hindu-kush; and Tsung-lung or Onion Mountains from the prevalence on it of a species of Allium. Its continuation forms the Pamir range, west of Yarkand. The Kouenlun chain is not less elevated than the Himalaya and is covered throughout a great part of its length with perpetual snow. Its axis has not been crossed by any traveller, but has been reached by Dr. Thomson who visited the Karakoram pass elevated 18,300 feet. In Western Tibet, the axis of the chain is in general distant about 150 miles from the Himalaya and the country between the two consists of a complication of ranges of lofty and rugged mountains separated from one another by stony valleys, which at the higher parts of the courses of the rivers expand at intervals into alluvial plains.—*H. F. et. Th.*

BUMASEA, Rus. Fustian.

BUMBA. A race inhabiting the hills westward from Kashmir to the Indus.

BUMBA, Hind. Spout of a fountain, also a snake hole, also a cask.—*Ell.*

BUMBOO? Tam. A Palghat wood, of a yellow colour, from a large tree. It is used for building and for furniture.—*Col. Frith.*

BUMBUL, Hind. Rubus biflorus.

BUMEETHA, Hind. In Lower Doab, and hills, same as Bambhi in N. W. and Bithak in Oudh.—*Ell.*

BUMMALO. A small fish, salted and dried, also called Bombay Ducks, but found on all the coasts of Southern Asia. See Bombay; Fishes.

BUMTELE. Name of a rajput tribe on the Eastern parts of the Central Doab.—*Ell.*

BUN, Arab. (Boon) Coffee. Coffee berries.

BUN, Beng. Hind, Bŭn uncultivated, hence.—*Willd.*

" Bun Ada, Zingiber cassummunar, wild ginger.
" Burbuti, Phaseolus rostratus.
" Chalita, Leea crispa.
" Chandur 681, Flagellaria Indica.
" Charal, Desmodium gyrans.
" Chichinga, Tricosanthes lobata.
" Churi H. called also Bura, a high jungle grass of which elephants are very fond.—*Ell.*
" Gab, Diospyros cordifolia.
" Gooa, Areca triandra.
" Gu, Beng. Solanum melongena.
" Gumuk, Cucumis pubescens.
" Gundhina, Beng. Allium tuberosum.
" Huldee, Curcuma aromatica.
" Joeen, Clerodendon inerme.
" Jam Ardisia humilis.
" Joan Cnidium diffusum.
" Kaoa, Coffea bengalensis.
" Kapas, Hibiscus vitifolius.
" Kuchao, colocasia antiquorum.
" Kulay, Glycine labialis.
" Kulmee, Ipomœa striata.
" Lubunga, Ludwigia parviflora.
" Meethee Melilotus parviflora.
" Mether, Beng. Trifolium Indicum.
" Nurukalee, Beng. Ardisia glandulosa.
" Mullika Jasminum sambac.
" Naranga Gelonium fasciculatum.
" Narangie Biophytum sensitivum.
" Neel Tephrosia purpurea.
" Nutit Amarantus fasciatus.
" Okra, Urena lobata; Triumfetta angulata; Xanthium orientale.
" Palung, Sonchus orixensis also Rumex Wallichianus.
" Pat, Beng. Corchorus olitorius.
" Piring Melilotus lucantha.
" Putol, Tricosanthes cucumerina, Tr. dioica.
" Rai, Sinapis divaricata.
" Raj, Beng. Syn of Bauhinia racemosa.
" Sufed pooin, Basella alba.
" Shim, Lablab dumetorum; also L. vulgaris.
" Sulfa Fumaria parviflora.
" Sun. Beng. and Hind. Crotalaria verrucosa.—*Linn*
" Tepurija Physalis minima.
" Tulsee Ocimum adscendens.
" Turooi, Beng. Clubbed Luffa, Luffa clavata.
" Uch, Morinda exserta.

BUNA, Hind. Edwardsia mollis; Platanus orientalis.

BUNAFUR, a tribe of Yadu bansi rajputs in Oudh, Allahabad and Benares, Gurra mundla and Bundelcund.—*Ell.*

BUNAIR, the elder branch of the Eusufzye Affghan. The Eusufzye are democratic and agricultural, lying in warm sheltered fertile valleys, touching the Indus on one side and Panjkhora on the other, extending on the south to Kabul, occupying the northern part of the plain of Peshawar, Bunir, Swat, Panjkhora and the Eusufzye part of the valley. About the year 1865, they opposed the British army in an attempt to move up the Umbeylah pass towards the Mahaban, but they suffered severely and afterwards lent their aid against Mulkah, situated on one of the spurs of the Mahabun, mountain where fanatics from Hindustani had assembled.

BUNA, of Kaghan, Albizzia odoratissima.

BUNAS or ANAS. See Hindu.

BUNBASARA. The first of the paracidal Bhattya kings. See Bhattiya.

BUN-BHANTA, H. Wild egg plant, Solanum melongena —*Ell.*

BUNBHOOAY or BAMBHOOAI, Bur. Careya arborea.—*Roxb. Rheede.*

BUNCHONG BULU WOOD. A red dye wood of the Celebes. See Dyes.

BUND, Hind. Pers. (bănd) a slip of an account: Bund-behri, also Bund-phantah, a statement of a village account an embankment, a dam.—*Ell.*

BUND or BOOND, a dark blue silk with many spots largely made at Benares.

BUNDA. Pers. (băndă) Anything fastened; hence probably the English word bundle.

BUNDAH, Hind. (băndăh) A slave, a servant.

BUNDAH, the last Sikh guru, he was put to death by Aurungzeb in A. D. 1708.

BUNDAR, Hind. Pers. (băndăr) A harbour; hence Shah bundar, a harbour master, a port-master; perhaps also a Bunder-boat.

BUNDARI. A section of the second class or Bara-jati of the Khutri. See Khatri.

BUNDER ABBAS, formerly called Gambroon, in lat. 27° 10' N. at the entrance of the Persian Gulf is 5 miles north of Kishm island. It is in the south of the province of Kirman and is about eighteen days march from the town of Kirman.—*Horsburgh.*

BUNDERDEVA, its chief in the time of Bapha was Esupgol, who gave his daughter to Bapna.

BUNDELCUND. In Central India, is divided into four states, with which British India has treaties, viz. Rewah, Tehree or Oorcha, Duttia and Sumpthur, with 32 minor states viz. Sohawul, Jignee Ajeygurh, Baonee, Beronda, Bijawur, Chirkari, Chutterpore, Kotee, Myhere, Nagode, Oorcha, and Punna. Other Bundelcund states, viz. Jaloun, Jhansi, Jeitpore, Chirgaon, Shahgurh, Banpor, Purwa, Bijirago-gurh, Tiroha, and two of the Kalingar Chobey jaghires have been confiscated by the British Government. The name of Bundelcund is taken from a spurious rajput tribe descended from the Gurhwar of Kantit and Khyraghur who settled there in the 13th and 14th centuries, but they say that the devotion of their ancestors to Binda (Vindhya) Basni gave rise to the name. The name has also been derived from Banda a slave. In British Bundelcund, there are few of the Boondela race, except in the pergunnah of Punwari.

The Bindiyachal mountains in Bundelcund commence near Seundah, L. 26° 14,' L. 76° 50'; proceeds S. W. to Narwar 25° 39, 77° 52'; S. E. to 24° 12'; N. E. to Ajegarh, 24° 53', 80° 20'; and Kulleenjar, in the same vicinity, and E. to Barghar, 25° 10' 81° 36'. None are more than 2,000ft., the average between the Tura and Kuttra Passes, about 520 ft. The Tons falls over the brow by a cascade of 200 ft.; Bilohi, 398 ft.; and Bonti, 400 ft.

The lower parts are primary, rocks overlaid by sandstone. In many places are trap, or other formations of volcanic origin. The plateau, which surmounts the range, is from 10 to 12 miles wide.

Bundelcund has, in the past three centuries, been fifteen times desolated by famine and it is proposed to utilize the waters of the Betwa river to secure its irrigation.—*Elliot. Aitchison.*

BUNDI, Hind. A kind of sweetmeat, in grains.

BUNDI, a state of Rajputana.

BUNER. A district of Afghanistan North West from Peshawar. See Bunair.

BUNDESH, a religious book of the Parsee Zoroastrians.

BUNG, Pers. Hemp.

BUNG. See Kunawer.

BUNGA, Hind. A stock of straw.

BUNGA-BUA-PALA, Malay. Mace.

BUNGA-CHANKE, Malay. Caryophyllus aromaticus.—*Linn.*

BUNGA-LAWANG, Mahr. Caryophyllus aromaticus.—*Linn.*

BUNGA PALA. Bali. Mace.

BUNGA PUKUL AMPAT, Malay. Mirabilis jalapa. See Macassar.

BUNGARI KI LAKRI, Hind. Vangueria pinosa.

BUNGAROO, Tel. Gold.

BUNGA SURSON, Hind. Sinapis juncea.

BUNGARUS, a genus of reptiles. B. cæruleus, B. tropidonotus, B. Ceylonicus, are three poisonous serpents of Burmah and Ceylon, of the family Elapidæ, B. cæruleus occurs in most parts of India and in Burmah, B. fasciatus, common in Burmah is rare on the eastern coast of the Peninsula, B. semifasciata occurs in China. These snakes are from 4 to 6 feet long.

BUNGGA CHAPPA, Malay. Blumea balsamifera.

BUND-I-KAISER. A dyke or bund near the town of Shuster in Southern Persia, thrown across the river Kuren. Sir Henry Rawlinson says that it was constructed by Ardeshir Babigan or his son Shahpur, and the canal constructed is called Nahr-i-Dariyan, which waters the fields to the south in the Miandab. —*De Bode.*

BUNDR, Pers. (bănd'r) A port or harbour. A common post-fix and prefix as Bunder Abbas; Muchli Bundr, and the English Bundr boat. See Bunder. Bundar; Bandar.

BUN-GHI, Hind. Corchorus olitorius.

BUNGKA, Hind. also called Kutooa, an aquatic beetle which eats rice plants. It is said to make a leaf boat, which it paddles from plant to plant.—*Ell.*

BUNGLA, Hind. commonly, Bungalow, a one storied house.

BUNGUSH. In the Kohat district, the principal tribe are the Bungush Pathans. They can muster 15,000 fighting men, and are fairly good soldiers. They highly appreciated the British light money assessments, after what had been long termed the " robber rule" of sooltan Mahomed Barukzye. Up to 1848, he held Kohat as a fief from the Cabul government. It was then taken possession of by the British on account of hostility evinced during the second Sikh-war. The khan of Hungoo in the Bungush country, was in the British service as Revenue Collector, when he was murdered by one of his own relatives. The khanship descended to his son. The Bungush tribe have suffered much from the raids of their hill neighbours, Wuzeeree, Orukzye, Tooree, and Cabul-kheyl.

The inhabitants of the Meeranzye valley are also Bungush. This valley belonged to the fief of sooltan Mahomed, but being an outlying locality was overlooked when Kohat was taken possession of. The Cabul government then lost no time in arranging for the occupation of Meeranzye, which appeared to have been vacated; so sirdar Azim Khan, the governor of the Koorum province, in 1851, summoned the Meeranzye to surrender; but they petitioned the British to include them in Kohat. Under the circumstances this request was acceded to. They were in their hearts hostile to the British government, as indeed they were to any government whatever. They offered to guard the Kothul, and asserted that they had an hereditary claim, stronger than that of the Afreedee, to occupy the ridge. The Kothul was then made over to them, and as the Afreedee refused to open the Pass, it was resolved to establish a blockade and the Afreedee were debarred from entering the Kohat and Peshawur valleys. While these arrangements were progressing, the Gullee Afreedee suddenly attacked the Bungush people on the Kothul, and seized that post. Several Bungush chiefs were killed in the encounter, and Major Coke who was present, was slightly wounded. Upon this check, the Bungush people obtained the alliance of two small, though warlike, tribes, named Buzootee and Sepah. These were independent and dwelt in the hills near the pass. The Southern section of the Jewakee Afreedee also joined the league. See Affghan; Khyber 508, 517.

BUNHAN, a river of Jeypore.

BUNHO. A Penang wood, from a large tree; occasionally used for building.—*Col. Frith.*

BUNJ, Hind.? Hyosciamus hyoscyamifolia.

BUNJARA, Hind. also, Banjara. The name is supposed by Elliot to be derived from the Sanscrit Bunij, a merchant. Shakspeare derives it from the Persian birinjar, a rice carrier. In the Dasa Kumara Cheritra, a work written by Dandi, mention is made of a cock fight in a bunjara camp. But the bunjara are even indicated by Arrian as one of the classes of Indian society. They are chiefly wandering grain merchants and salt merchants, but many have settled down in the tract under the northern hills lying between Goruckpoor and Hurdwar. Some are mahomedans and say they came from Multan. Those of western India are usually Charuns, and their sacred character is a great protection to them.

The Turki Bunjara who are mostly carriers, have 36 tribes or got.

The Beid Bunjara have 11 "got," they came from Bhutnir and are now in Pilibit and Kant, and many are weavers and medical men.

The Lubana Banjara have 11 "got" are mostly agricultural. They claim to be descendants of Gour brahmins and to have left Runthumbor in Aurungzeb's time.

The Mookeri Banjara claim to have come from Mecca, and to reside in Jhujjur. They have 16 "got."

The Buhrup Bunjara are mostly hindu and lead a more wandering life. They are divided into the five tribes, Rathor, Chouhon or Koorri, Powar, Towur and Burtea, who are again subdivided into tribes or got. They claim to have come from Chittoor. They intermarry, but not with members of the same got. They have a close relation with those of the Dekhan, each community has a chief at its head styled Naik, to whom they yield implicit obedience.—*Elliot*, 128-131. See Bunjara.

BUNJAR, Hind. Waste land: land lying fallow, also indifferent soil.

BUNJIN, Hind. A weed which grows in the Kharif crops much sought after by fakirs who practice alchemy.—*Elliot.*

BUNKA THADA.

Bunka thadah... ...Tel. | Babtra ....Hind.

A wood which was sent to the Great Exhibition.

BUNNAS RIVER, rises in a cluster of summits in the Aravalli range, Lat. 24° 47' Lon. 73° 28' S. W. into Run of Kutch, by several small channels. Length, 180 m. About 17,000 sq. m. drained.

BUNNI, Hind. Payment in kind, hence Bunnihar a ploughman paid in kind.

BUNNOO valley is held by mixed races, who dwell in walled villages. They are undersized and sallow skinned. They are quiet, orderly and regular in revenue matters, but immoral, capable of reckless perjury and deliberate assassination. Bunnoo is intersected by the Koorum River which renders it rich and fertile and they cultivate with some industry. They are well affected to the British Government. Iron is imported in quantities from the Wuzeeree hills, and is worked up, at Kalabagh, into agricultural implements, cauldrons, cooking utensils, grates and fire irons, ladles, pegs, locks, horse shoes and chains. The Wuzeerees bring it down on bullocks and mules chiefly through the Koorum pass to the Bunnoo fair where it is bought up by carriers from Kalabagh who convey it back to that great emporium of the iron trade, where they sell it to the manufacturers. The spade in use in Bunnoo, called in Pushtoo "erm," is very peculiar. Tobacco is imported in large quantities from the Wuzeeree hills chiefly through the Koorum-walee and Dworukka. Much cattle is brought to the Bunnoo fair from Dour and the Wuzeeree hills; also numbers of goats and sheep. The Doomba is much prized, and is reared in the district as well as beyond the border.—*Latham.*

BUNNOOCHEE. The race occupying Bunnoo.

BUNNOOR. An Affghan tribe adjoining the Peshawur district. They are called Bunoorwal.

BUN-OTSURG, HIND., also, written Banotsarg, from ban a forest, "ootsarg" abandoning, a hindoo marriage ceremony performed in honor of a newly planted orchard, without which it is not proper to partake of its fruit. A man holding a Saligramma personates the bridegroom. Another holding the sacred tulsi, personates the bride. After a homa or fire sacrifice, the officiating brahmin puts the usual questions to the couple. The bride then makes three circuits of a spot in the orchard, moving from the south to the west followed by the bridegroom holding an end of the personating bride's garment. The bridegroom then takes precedence and circumambulates similarly.—*Elliot.*

BUNSEN, Karl Christian, born 1791 at Corbach in Waldeck. He was the son of a soldier, was long employed in Italy and England, as Ambassador and was the author of Egypts place in Universal history: description of Rome, Hyppolytus and his times: Signs of the times: Church of the Future; God in History, died 18—?—*Fraser's Magazine, June* 1868.

BUNT, Smut Balls or Pepper Brand.

Uredo caries	DEC.	Uredo fœtida	BAUER.

The fungus which occasions this disease, has hitherto been met with only in the grains of wheat, when its presence is readily recognised by the peculiarly disgusting odour of the infected ear. When this disease prevails, it greatly deteriorates the value of the sample; and from imparting its disgusting odour to the flour, makes it less fit for bread.—*Russell.*

BUNT, HIND., unripe pulse of Cicer arietinum.

BUNTA-JAMUDU, TEL. Euphorbia antiquorum.—*Linn.*

BUNTAKI, HIND. Solanum melongena.

BUNTURIA. A class of wood rangers in the northern parts of Goruckpur. They are now cultivators.—*Ell.*

BUNUN, HIND. Fragaria vesca.

BUN-ZU, written also Bom-zu and Bom-du, a tribe of the Ra-Khoing, who dwell north of the Koladan river inhabiting chiefly the eastern basin of the Kurnfuli or eastern branch of the Chittagong river. To their north are the closely allied tribes, the Lungta, Kungye or Kuki, inhabiting the highlands of Tipperah and extending South East towards the head of the Koladan, both the Bunzu and Kuki appear like the Kumi to belong to the Burmah family.

BUOYS, ENG.

Bouis	FR.	Apung timbulkan	MALAY.
Ankerboyen	GER.	Boyas	SP.
Gavitelli	IT.	Langaru Gurutu	TEL.
Ampung, Lampung	MALAY.		

A floating body employed to point out the situation of anything under water, as a ship's anchor, a shoal, a sand-bank or the course a ship should take entering a harbour: they receive various names.—*Faulkner.*

BUPHUS COROMANDUS, one of the crane tribe. These with Ardea cinerea, A prasinosceles and Herodias garzetta are common in India.—*Collingwood.*

BUPARITA. RHEED. Thespesia populneus.

BUPHTHALMUM RAMTILLA, BUCK. Guizotia oleifera. *D. C.*

BUPLEURUM MARGINATUM.—*Wall.*

Kali Zewar	HIND.	Zira	HIND.
Sipal	„		

This and allied species are abundant in many parts of the Punjab Himalaya, from 2,500 to 11,500 feet. In Kanawar the root is stated to be eaten raw, and the seeds to be exported as Zira.—(See Carum).—*J. L. Stewart, M. D.*

BUPRESTIS. See Beetles; Coleoptera.

BUPSA, a river of the Sabathoo circle.

BUQ, PERS. A goat's horn, buq-i-Hamam, the horn summoning to the bath.

BUQR-EED, or Eed oos Zoha, held on the 9th day of the twelfth month Buq-reed. On this occasion, mahomedans proceed to the Eed-gah in great state, when the khootbah is read in the name of the ruling sovereign.

BURJA, TEL. Hymenodyction excelsum.—*Wall.*

BURI MAE, HIND. Tamarix indica.

BURJ, a bastion. See Boorj.

BURJ, HIND. Also Burjri, Betula bhojputra, B. Jacquemontii, *Spach, Birch.*

BURKA, in lat. 23° 43°′ N. long. 57° 54′ E. a town 40 miles west of Muskat and the summer residence of the Imam.—*Horsburgh.*

BUR KA JHAR, Hind. Ficus Indica.

BURKOOK, Khubani, Mishmish, Bakur-Khanee, Hind. Pers. Armeniaca vulgaris, The apricot.

BURKUNDU, Hind. Caragana tragacanthoides.

BURMAH, an independant kingdom bordering on British India, to the East, and lying between British India and China.

In the Burmese Chronological table, translated in Crawfurd's Embassy, are the following events:

B. C.		
691	Sacred Epoch.	The grand epoch established by An-ja-na the grandfather 7 Guatama.
628		Gautama born.
608		„ began to reign.
589		Gautama obtained deification (became a Buddha).
544		Gautama died and obtained Nib'han (annihilation.)
543	1	The sacred epoch established by king Ajatasat.
94	450	The communications of Gautama reduced to writing inCeylon.
A. D		
76	P. E. 1	The Prome epoch established by king Sumundri.
639	V. E. 1	The Vulgar epoch established by Puppa-Chan-ra-han.
1364	726	Uch-cha-na-praung, in Chit Kaing. But this year Sa-to-mang-bya, founded Angwa (Ava), and began to reign: and Chitkaing and Panya were destroyed.
1752	1114	Alaung b'hura (Alompra) began to reign at Mut-cho-bo (Monchabo.)
1781	1143	His cousin, Paing-ka-cha commonly called Maung-mang, son of U-pa-ra-ja at Ava, succeeded the same year by his uncle Padem-mang, or Man-ta-ri-kri son of Alaung-b'hura, and founder of Ama-ra-pura.
1822	1184	Ava re-built and made the capital.—*Prinsep's Antiquities, p. 294.*

The Burmese seem to have been an intruding race conquering from north to south, and the boundaries of their kingdom have greatly varied. At present the population of the territories, subject to the king of Burmah, including the tributary Shan states, probably does not exceed three and a half millions of souls. The area of the whole country is about 192,000 square miles.

A treaty is said to have been entered into in 1795 between the Indian and Burmese Governments, and in 1795, Captain Michael Symes was sent as envoy to Ava, but from 1797, disputes regarding Arakan began and the fugitives into Chittagong were, in 1798, demanded from the British.

Colonel Symes returned to Rangoon, where he was not treated with ordinary civility by the Governor, and he left for Bengal in January 1803. After this, Captain Canning was sent on two occasions, the latter in 1809, on the first he was treated discourteously, but on the latter with civility. In 1811 the Arakanese again rebelled and invaded Burmese territory and in 1811 Captain Canning was again sent to mediate. Subsequently to that year the Burmese officers in Arakan more than once made demands for the surrender of Arakanese refugees and even made pretensions to the sovereignty of Bengal, as far as the city of Moorshedabad, as territory pertaining to the kingdom of Arakan. In 1819 they interfered in Assam, and in 1824 they invaded Cachar. War was declared against Burmah, on the 5th March 1824, and after two campaigns under Sir A. Campbell a treaty of peace was declared at Yandaboo, on the 24th February 1826. Subsequently, in 1851, in consequence of the Burmese refusing redress to a British shipowner whom they had injured at Rangoon, war was again declared and was conducted successfully by General Godwin.

Rangoon fell to a combined Naval and Military Force on the 14th April 1852 and when peace was declared all Pegu and Arakan were retained by the British. Burmah is ruled by a king and by the Atwen-woon, Burmese Privy Councillors, of whom there are four. They are inferior in rank to the Woon-gyi, but between them and the Woon-dook precedence is disputed.—*Yule's Embassy, p. 72.*

The Burmans proper occupy the valley of the Irawaddy, mixed with Karens, from L. 18° N. to the delta. They are budd'hists. Their language, the Burmese, is spoken in Arakan, in the valleys of the Irawaddy and Sitang, and in Tenasserim to the south of Tavoy. The Arakanese and Burmese are called Myamma and are of the same race. There are numerous Shan states far to the north-east, but they generally owe fealty to the Burmese Monarch.

The Burmans, are lively, inquisitive, active, irascible and impatient.

The Burmese tattoo themselves and, after certain Turks, are perhaps the most civilized men and women who do so. The Burman woman's lower garment is a narrow cloth of various colors, of a pleasing contrast, which descends generally from the waist or from below the arm to the feet. It is made to overlap and in front is tucked in, but it is so narrow that as the wearer walks, the thigh is more or less shown at each step.

From Prome to Ava the country is characterized by unevenness and general elevation. Northerly, it is decidedly mountainous. Mountains 4 m. N. of Ava, 4,000 ft. Zyngait Mts., forming a kind of elevated doab between the Salwen and Sitang rivers. Gold, silver, iron, tin, lead, antimony, and other metals, are met with. Quarries of marble are worked near Amerapoora. There are many fossiloferous rocks and coal has been discovered on the Irawaddy.—*Aitchison's Treaties, &c. Pages* 202 & 203. *Prinsep.*

BURMAN BOX-WOOD. Murraya, *species*

BURMANN, author of the Thesaurus Zeylanicus, published in Holland, which he wrote from the collections made in Ceylon, by Dr. Paul Hermann, a medical man in Ceylon. The same collection served Linnæus to write his Flora Zeylanica and it is now in the British museum. Subsequent to this, in the year 1768, Professor Nicholas Laur, Burmann of Amsterdam, son of the author of the Flora Zeylanica, published his Flora Indica, with 67 plates, containing figures of 178 plants tolerably executed, but much inferior to those in the Flora Zeylanica.—*Wight's Prodromus Floræ, Vol. I. p.* 10, quoted in *Hook. et. Th.*

BURMANNIA, a genus of plants of which three species are known in India, B. disticha of Ceylon Concan and New Holland. B. cœlestis of Nepal, and B. triflora of Penang.—*Voigt,* 594.

BURMAR, HIND. Artemisia parviflora.

BURNA, a river running near Chobeepoor, in Benares district.

BURNAK, HIND. Artemisia sacrorum.

BURNEE, a river near Shahpoor in the Northern Concan.

BURNES. Three brothers of this name served together in India. The eldest, James Burnes, K.H., L.L.D.; wrote a History of Cutch and visit to the Court of Sind: Sir Alexander Burnes, Kt. who wrote his travels in Persia and History of Cabul, at which place, along with their youngest brother Charles, he fell on the 2nd November 1841. They were natives of Montrose in Scotland, sons of James Burnes, provost of the town, and relatives of the poet Burns.

BURNES, SIR A., a distinguished officer of the Bombay Army, who entered the service in 1822, and was killed at Cabool in 1841. He was very conspicuous for his zeal and ability as a linguist, statist, and general observer. Travelled alone from Bombay through Sind, the Punjab, and Bokhara to the Caspian Sea, returning by the Persian Gulf, betwixt 1831 and 1833. Was despatched on a mission to Cabool in 1837; Assistant to the Envoy from 1838 to 1842: Author of Notice of hospital for animals at Surat, *Jl.* Vol. I. p. 96.—On the Colossal images in Bameean, *Bl. As. Trans.* 1833, Vol. II. p. 563.—Travels into Bokhara, *Lond.* 1834, 3 Vols.—On Female Infanticide in Cutch, *Lond. As. Trans.* 1834, Vol. I. p. 193.—Cabool 1837 and 1838, *Lond.* 1842, 1 Vol.—Notice of Sind, *Lond. Geo. Trans.* 1837, Vol. VIII, p. 2.—Observations on the maritime communications of India, as carried on by the Natives, *Ibid,* 1836, Vol. VI. p. 2. —On the ruins of Puttun Somnath, *Lon. As. Trans.* Vol. V. p. 104. A Memoir of his life appeared in the *Bombay Times, December* 1841 *As. Jl.* 1842.—Dr. Buist's Narrative of Affghanistan, *Bombay* 1843, *Dr. Buist's Catalogue.*

BURNES, DR. JAMES, [illegible] Bombay Medical Service, but retire[illegible]ian General 1850, having formerly held[illegible]es of Assistant Resident, Cutch; and Secr[illegible] Medical Board, Author of Visit to the Court of Scinde, with sketch of the history of Cutch, 1839, I Vol. 12mo. *Memoir of, Calcutta,* 1840, *and London,* 1851.—See *Dr. Buist's Catalogue.*

BURNING OF WIDOWS, existed in early times amongst Thracians, Getæ, and Scythians.

In the island of Lombok, wives may suffer themselves to be burned or krised after the death of their husbands. They are not compelled to do so. Such an event very seldom occurs, and during one traveller's stay there was only a single widow who allowed herself to be krised. They have the choice of allowing themselves to be burned or krised. The former is the more rare. The wives of the Rajas, however, must suffer themselves to be burned. When a Raja dies some women are always burned, even should they be but slaves. The wives of the priests never kill themselves. An eye witness thus relates how one was conducted: The gusti who died at Ampanan left three wives. One of them resolved to let herself be krised in honor of him, and that against the will of all on both sides of her family. The woman was still young and beautiful; she had no children. They told me that a woman who under such circumstances, suffered herself to be killed had indeed loved her husband. She intended to accompany him on his long journey to the gods, and she hoped to be his favorite in the other world. The day after the death of the gusti, his wife took many baths; she was clothed in the richest manner; she passed the day with relatives and friends, drinking, chewing sirih and praying. About the middle of the space before the house they had erected two scaffoldings or platforms of bambu of the length of a man, and three feet above the ground. Under these they had dug a small pit to receive the water and the blood that should flow. In a small house at one side and opposite these frame works were two others entirely similar. This house was immediately behind the *bali-bali*. At four o'clock in the afternoon men brought out the body of the gusti wrapped in fine linen, and placed it on the left of the two central platforms. A priest of Mataram removed the cloth from the body while young persons hastened to cover the private parts of the dead with their hands. They threw much water over the corpse, washed it, combed the hair, and covered the whole body with chámpáká and Káuángá flowers. They then brought a white net. The priest took a silver cup filled with holy water (called chor) on which he strewed flowers. He first sprinkled the deceased with this water, and then poured it through the net on the body, which he blessed praying, singing, and making various mystical and symbolical motions. He afterwards powdered the body with flour of coloured rice and chopped flowers, and placed it on dry mats. Women brought out the wife of the gusti on their crossed arms. She was clothed with a piece of white linen only. Her hair was crowned with flowers of the Chrysanthemum Indicum. She was quiet, and betrayed neither fear nor regret. She placed herself standing before the body of her husband, raised her arms on high, and made a prayer in silence. Women approached her and presented to her small bouquets of kembang spatu, and other flowers. She took them one by one and placed them between the fingers of her hands raised above her head. On this the women took them away and dried them. On receiving and giving back each bouquet the wife of the gusti turned a little to the right, so that when she had received the whole she had turned quite round. She prayed anew in silence, went to the corpse of her husband, kissed it on the head, the breast, below the navel, the knees, the feet, and returned to her place. They took off her rings. She crossed her arms on her breast. Two women took her by the arms. Her brother (this time a brother by adoption) placed himself before her, and asked her with a soft voice if she was determined to die, and when she gave a sign of assent with her head, he asked her forgiveness for being obliged to kill her. At once he seized his kris and stabbed her on the left side of the breast, but not very deeply so that she remained standing. He then threw his kris down and ran off. A man of consideration approached her, and buried his kris to the hilt in the breast of the unfortunate woman, who sunk down at once without a cry. The women placed her on a mat, and sought, by rolling and pressure, to cause the blood to flow as quickly as possible. The victim being not yet dead, she was stabbed again with a kris between the shoulders. They then laid her on the second platform near her husband. The same ceremonies that had taken place for him now began for the wife. When all was ended, both bodies were covered with resin and cosmetic stuffs, enveloped in white linen, and placed in the small side house on the platforms. There they remained until the time arrived for their being burned together.

It is always a near relation who gives the first wound with the kris, but never father or son. Sometimes dreadful spectacles occur; such was one at which Mr. K. was present. The woman had received eight kris stabs, and was yet quite sensible. At last she screamed out, impelled by the dreadful pain, "Cruel wretches, are you not able to give me a stab that will kill me!" A gusti who stood behind her, on this pierced her through and through with his kris.

The native spectators, whom, he adds, I had around me, saw in this slaughter which took place before our eyes, nothing shocking. They laughed and talked as if it was nothing. The man who had given the three last stabs wiped his kris, and restored it to its place, in as cold blooded a manner as a butcher would have done after slaughtering an animal.

Only the wives of the more considerable personages of the land allow themselves to be burned, because this is attended with much more expense than krising. They then make a very high platform of bambu. The woman ascends after many ceremonies, and when the fire is at its greatest heat. She then springs from above into the middle of the flames. Mr. K. thinks that they do not suffer much because during the leap they are stifled; and at all events the fire, strengthened by fragrant resins, is so fierce that death must speedily ensue.

The Balinese dress in Lombok in the same manner as in Bali, and the Sassaks nearly in the same way. For example, although mahomedans, they have uncovered heads. The Sassak-women, differ a little in their dress from the Balinese. In the first place they do not bind up their hair with a piece of white cloth, like the Balinese, but go bare headed like the men. Some wear a short *baju* like the women of Sambawa and Makassar, others have the bosom naked, or covered with a *slendang* of a coarse stuff, striped red and black in the length. The *sarong* is almost always of blue or black cloth.

The food of the people of Lombok differs in nothing from that of the people of Java. The Balinese, who may not eat beef, substitute for it pork. Both races eat buffalo flesh, goat's flesh, fish and poultry.

The people of Lombok are neither more nor less superstitious, than all the other people of the Archipelago. It is the Rinjani especially which makes an impression on the people, on account of the bad spirits which reside upon it. My travelling companions for example, he adds, told me not to shout upon the mountain because the bad spirits would become irritated, and not to take any stones from the ground, because they would resent it and play us some bad trick. Whoever wishes to approach the Segara Anak must be blessed, fasting, and have said his prayers and be clothed in white. As they approach it they must notice what appearance it presents to them. The more lengthened it appears to them, the longer time will they live. If it looms broad they will quickly die. All these ideas are found however over all the Archipelago, round the volcanoes, and in spite of all modifications which they have undergone, through time or local circumstances, they are all based upon the belief of a supernatural and malevolent power which causes and regulates, the working of the subterranean fire. No religion, not even the christian, will root out these fixed ideas from this people. Impressive phenomena, like volcanic, sound louder than all reasonings in the ears of uncivilized and timid men.—*Journ. Ind. Arch. No.* IX. *Vol.* V. 537.

BURNING the dead, is the usual mode by which the Arian hindus all over India, dispose of the remains of those who die. It was formerly a practice in China but has been discontinued there since the middle of the 18th century.

BURNOUF, Eugene, a learned Frenchman, who devoted much of his life to oriental investigations. He was a sanscrit scholar, in 1840-1847, edited and translated part of the Bhagavata Purana. He published in 1844 his introduction a l'Histoire du Buddhisme. He died in 1851.

BURO-BET, Beng. Calamus fasciculatus. —*Roxb.*

BURO KUPUR CHITTU, Beng.? Tetranthera monopetala.—*Roxb.*

BURO LUNIYA, Beng. Portulaca oleracea.—*Linn.*

BURONG-BERROM, Malay. A large white and blue pigeon of Banda.

BURONI CHETTU, Ficus rubescens, *Vahl.* —F. heterophylla, R. iii. 532.

BUROON, Beng. Caper tree, Capparis trifoliata.

BURODA, the chief town of Guzerat and capital of the Gaekwar; Chandanavati, was an ancient name of Baroda having been founded by Chandun, chief of the Dor Rajputs, but Chandanavati means the "city of Sandalwood." This name was changed to Viravati, the "abode of warriors;" and subsequently to Burpotra or "Leaf of the Bur" perhaps from some fanciful resemblance of the circumvallation to a banyan tree leaf. This has been softened into Baroda.

BUROONGI, Hind. Quercus flexuosa, of the Mehra forest, near Abbottabad. An evergreen oak, bearing acorns; leaves of the young plant are like those of the holly.—*Cal. Cat. Ex.* 1862.

BURO-PHUTIKA, Beng. Melastoma malabathricum.—*Linn.*

BURO REETA, Beng. Sapindus emarginatus.—*Vahl.*

BURO-RUKTO-KUMBAL, Beng. Nymphæa rubra.—*Roxb.*

BURO SHIAL KANTA, Beng. Argemone Mexicana.

BURR. Wherever Arabs are met with in tents, they denominate their place of encampment "Burr," or wilderness; the term Zahara, or desert, being more particularly applied to the wilderness of Africa.—*MS. of Mr. Rassam* quoted in *Euphrates and Tigris, Col. Chesney, p.* 574.

BURRA-ELACHEE, Hind. Elettaria cardamomum medium.

BURRA-FLAWAN, Hind. Caryota urens.

BURRA-GHOKRU, Hind. Duk. Pedalium murex.

BURRA JAMUN, Hind. Eugenia jambolana.

BURRA LASOORA, Hind. Cordia latifolia.

BURRA MANGA, Hind. Canthium parviflorum.

BURRAR, Hind. In Rajputanah, is an indefinite term for taxation, and is connected with the thing taxed: as ghaneem *burrar*, 'war tax;' *gurh ginti-burrar*, 'house tax;' '*hal-burrar*,' 'plough-tax;' *neauta-burrar*, 'marriage-tax' and others, both of old and new standing.—*Tod's Rajasthan, Vol. I, p.* 143.

BURRASHEE. A river near Jeynuggur in Jessore.

BURRA WAFAT. Ar. The great death. In the ritual of the mahomedans, the death of Mahomed, it occurred on the twelfth day of the third month Rubbee-ool-awul.—*Herk.*

BURRAY KAROONDAY, Duk. Carissa carandas.

BURRAY BENGAN, Duk. Brinjal. Egg-plant.

BURRI, H. Dibbling grain, Gurri, Gulli and Si are all similarly applied.

BURRI TOOVAR. Dhal; dhal; Tour, Cajanus Indicus; Cytisus cajan; Pigeon pea, Large Dhal.

BURRO, It. BUTTER.

BURRO, also, Kulm, Guz. Hind. and Pers. Reed Pens.

BURROW. See Barrow : Burial : Cairns.

BURSAWUL of the Yerkli. Aquila fulvescens.—*Gray.*

BURSE, Hind. Eurotia ceratoides.

BURSENAPUTI, the chief of the Muttuk branch of the Singhpo group. He is a vassal of the rajah of Assam, and the people are called Muttuk Moamerria or Mowameria. Their country is a short distance from where the Brahmaputra river enters the Assam valley, and they dwell close to the banks, and principally on the southern side.

BURSERACEÆ. A natural order of plants nearly all natives of tropical climates. About twenty-four species have been found in the south and East of Asia, of the genera Balsamodendron, Boswellia, Canarium, Garuga, Icica and Protium. They have all an abundance of fragrant resinous juice. Boswellia serrata yields olibanum. Canarium Bengalense, of this tribe, according to Dr. Roxburgh, exudes an excellent clear amber-coloured resin, not unlike copal. In America, as in India, several valuable resins as Elemi, Carana, Chibow, and two or three kinds of Tacamahaca are afforded by plants of this tribe.—*Royle's Ill. Him. Bot., p.* 177. *Voigt. p.* 149.

BURSERA PANICULATA, Lam. Rumph; syn, of Canarium commune, Linn, *D. C. W.* and A. Koen.—*Roxb.*

BURSERA SERRATA, Wall. Syn of Icica Indica.—*W. and A.*

BURSINOPETALUM ARBOREUM, Wight Var. *macrophyllum, c. p.* 637, 2440. A large tree of the forests of the Central Provinces of Ceylon, growing at an elevation of 4,000 to 7,000 feet.—*Thw. En. Pl. Zeylan,* 42.

BURSINOPETALUM TETRANDRUM, Wight, a large tree of Ceylon.—*Thw. Enum. Pl. Zeyl. I. p.* 42.

BURSTEN, Ger. Brushes.

BURSUNGA. Hind. The leaves of Bergera Konigii, used medicinally.

BURTON, R. F., of the Bombay Army, in which he rose to the rank of captain. Author of Goa and the Blue Mountains. Description of Sind, or the unhappy valley, Lond. 1851, 2 vols. Scind and the races that inhabit the valley of the Indus. Lond. 1851, 1 vol. Journey to Mecca. Travels in the Somali country. Contributions to Blackwood's Magazine. The city of the the Salt Lake.—*Dr. Buist's Catalogue.*

BURU, a large island in the Eastern Archipelago, being about two hundred miles in circumference. The bulk of the inhabitants are a comparatively fair people, very closely resembling the natives of Amboyna ; and the only tribe that is likely to be Papuan, is a small community which resides in the neighbourhood of a mountain lake near the centre of the island. This lake, which seems to have excited curiosity at Amboyna, was visited by parties from the garrison in 1668, and again in 1710, and their observations are recorded at some length by Valentyn, in his "Beschryvinge Van Oost India."—*Mr. Earl, p.* 185. See Papuans.

BURU, Beng. Large, hence.

Buru-bel, Beng. Jasminum plenum.

Buru-bet, Beng. Calamus fasiculatus.

Buru-buhooyari, Beng. Cordia latifolia.

Buru-buyur, Beng. Zizyphus fructu oblongo.

Buru-chali, Beng. Guatteria suberosa.

Buru-chhooucha, Beng. Tall cypress grass, Cyperus Iria.

Buru-chuna, Beng. Vicia sativa.

Buru-elaich, Beng. Large Cardamom, Amomum grana paradisi.

Buru-gachh, Beng. Ficus religiosa.

Buru-gothoobi, Beng. Mariscus cyperinus.

Buru- hulkusa, Beng. Leucas cephalotes.

Buru-jalgautee, Beng. Bristly panic grass, Panicum setigerum.

Buru-jhauji, Beng. Utricularia stellaris.

Buru-joyan, Beng. Ptychotis ajowan.

Buru-jubanee, Beng. Trichelostylis miliacea.

Buru-kanoor, Beng. Crinum toxicarium.

Buru-kerni, Beng. Euphorbia hirta.

Buru-keshuriya, Beng. Hymenochæte grossa.

Buru-keshuti, Beng. Adenostemma biocarpum.

Buru-kokshim, Beng. Torn fleabane, Blumea lacera.

Buru-koondu, Beng. Woody jasmine, Jasminum arborescens

Buru-kookoor-chita, Beng. Tetranthera monopetala.

Buru-kulpu, Beng. Trichodesma Zeylanicum.

Buru-kungi, Beng. Abutilon graveolens.

Buru-kut, Beng. Sagittaria obtusifolia.

Buru-looniya, Beng. Portulaca oleracea.

Buru-makal, Beng. Trichosanthes bracteata.

Buru-methi, Beng. Trigonella fœnum-Grœcum.

Buru-munda, Beng. Two-colored Loranthus. Loranthus longiflorus.

Buru-musoor, Beng. Ervum lens.

Burundu, Beng. Panicum uliginosum.

Buru-neelpud-mu, Beng. Nymphœa major.

Burua, Hind. Cratæva tapia.

Buru-panchoo-lee, Beng. Villarsia Indica.

Buru-panee-murich, Beng. Polygonum pilosum.

Buru-pani-nuti, Beng. Poa Chinensis.

Buru-phootika, Beng. Melastoma Malabathricum.

Buru-rai, Beng. Sinapis ramosa.

Buru-ritha, Beng. Sapindus emarginatus.

Buru-ruktu-kumbul, Beng. Nymphæa rubra.

Buru-shada-ma-khumshim, Beng. Canavalia leucosperma.

Buru-shalook, Beng. Nymphæa pubescens.

Buru-shalpanee, Beng. Flemingia congesta.

Buru-shama Beng. Panicum hispidulum.

Buru-shelkanta, Beng. Argemone Mexicana.

Buru-shoonthee, Beng. Rottbolla exaltata.

Buru-shoung, Beng. Kœnig's Bergera; Bergera Konigii.

Buru-tugur, Beng. Tabernæmontana plena.

BURUD, Mahr. The name of a caste, or individual of it whose occupation is mat making. He is sometimes enumerated among the village servants.

BURUGA. Tel. Eriodendron anfractuosum.

BURUQ, Arab. Borax.

BURUKI, a race occupying Logur and Butkak, who say they are of Arab origin. They are said to have been settled there, S. of the Kabool river, since the 11th century, by the sultan Mahomed. Their number is about 8,000 families, but they arrange themselves into tribes, with chiefs. They are good soldiers. The Buruki tribes of Loghur and Butkak, reside in the Ghilzi portion of the Afghan country.—*Latham.*

BURUNG, Malay. Bird.

BURUNGEE, Duk. Siphonanthus Indica.

BURUNJ or BIBINJ, Pers. Rice.

BURUN-JASIFI-KOIII, Pers. Artemisia Indica.—*Willd.*

BURZAL, Hind. Betula bhojputra, B. Jacquemontii —*Spachn. Wall, Royle.*

BURZUD. Pers. Galbanum.

BUSA, Guz. Bhusa Hind. Bran.

BUSARA KAYA. Physalis Peruviana, *L.*

BUSE, Malay. Civet.

BUSH, Eng.

Kyon	Burm.	Jhari	Hind.
Siuah	Heb.		

BUSH, Hind. Cousinia *sp.*, also Echinops nivea.

BUSHAN, Hind. Of upper Chenab, Salix alba, white willow.

BUSHAIR, the natives of Bushair, Sookeytmundee and Kooloo in the Kohistan of Jhullundhur have all sallow complexions and seem all of the same race. See Kohistan.

BUSHIA. A town with horses, yaks, sheep, provisions, &c. The people, half nomadic Tartars, appear very honest; the prices they asked were certainly moderate. They inhabit caves fitted up like houses, in the cold season, and tents during the rest of the year. The height of Bushia is 9,200.—*Rep. Proceed. Mag. Surv. India, p.* 3.

BUSHIR, also known, as Abu-Shahr and Bu-Shahr, a town in the Persian Gulf in Lat. 29° and Long. 50° 50' which was captured by the Indian naval and military forces on the 10th December 1856. Out of the plain near *Bushehr* many vases have been taken, formed of ill-baked clay, and filled with seeds of the plant tulah or mallows which soon decay when affected by the fresh air. Earthen urns, containing the remains of human bodies, are said to abound on the plain of *Bushehr*; and persons reside there who, with very little trouble, can indicate the spot where they lie, although buried in sand.—*Ouseley's Travels, Vol. I. p.* 216.

BUSH-KURD. The district of Bush-Kurd is looked upon by the natives as a part of the Kohistan, and the Koords, who inhabit it, are never spoken of by the term Mukranees a people of Mukran: but it is south of the Kohistan, and unquestionably in Mukran. It is one uninterrupted and rugged mass of mountains, that afford pasturage for the cattle of the Koord Belooches, who depend on the lower countries for grain and other supplies. These people are a tribe of Koords that have advanced out of Laristan.—*Pottinger's Travels, Beloochistan & Sinde, p.* 305-6.

BUSH QUAIL, Lowa, Hind. See Birds. Quail.

BUSI or *Nevaladuga manu*, Tel. Vitex arborea —*R.*

BUSKRUID, Dut. Gunpowder.

BUSSAHIR is in Kunawar in the upper course of the Sutlej river. In Bussahir, the inhabitants suffer from goitre, but not so much as in the valleys of the Pabur and Tonse; the general impression is that the disease arises from drinking snow water, but this seems erroneous, as the people in the higher valleys do not suffer so much as those in low situations.

In times of scarcity, the people of Kunawar eat Himalayan chestnuts, Pavia Indica, and apricot kernels; they soak them to remove the bitterness and grind the whole into flour with the inferior millets, forming large chupatties (bannocks.) The fleshy and stone fruits of Kunawar are the grape, apricot, peach, apple, walnut, and mulberry. Sungnam is famous for its apples; Akpa for grapes; and Pangi for walnuts. From Kanam to Miru ridge, in upper Kanawar, are to be found,—Cedrus deodara, Pinus gerardiana, P. excelsa, Abies smithiana, Picea webbiana, Juniperus excelsa, J. squamosa, Populus alba, Juglans regia, Corylus lacera, Armeniaca vulgaris. Pyrus malus, Cerasus puddum, Quercus ilex; and Salix alba —*Cleghorn Panj. Report, p.* 58.

BUSSALA, It. Compass.

BUSSEL, Arab. Onion.

BUSSAWUL, in Long. 75° 49' E. and Lat. 21° 9' N.

BUSSI KHEIL, a tribe on the borders of British India. The Afridi lie between Peshawar and Kohat, they are fierce, factious and strong, and with the Bungush the Jewaki, Bari, Bussikheil and Busti kheil, as also the Sipah and Bizotu, are more or less independent.

BUSSO, BOSSO, BOSSOLO, It. Box.

BUSSORAH. See Bassorah.

BUSSUNT'H, spring time, the *bussunth* or spring songs and the *megh* or cloud songs of the monsoon, are full of melody, a spring festival is observed at Lucknow.

BUSSUNT-GAH, is at the foot of the southern range of hills running parallel to Mount Aboo.

BUSSY. An eminent commander of the French in India, from A. D. 1751. He threw all his influence in support of the Nizam of the Dekhan, was present at the battle of Amboor which the French gained and Anwar-ud Din fell, and he attacked Gingee successfully. He was attached to Muzuffar Jung, but after the demise of the latter he appointed Salabut Jung to be subadar of the Dekhan and accompanied him to Aurungabad. He subsequently defeated the Peshwa, and was able to obtain for Dupleix the title of Nawab of the Carnatic. He subsequently obtained the cession of four provinces near Aurungabad, then of the four Circars. He was afterwards dismissed the Hyderabad service but made a bold stand. He then returned to the Dekhan and joined Lally at Arcot, and was taken prisoner at the battle of Wandewash.—*Malleson, French in India.*

BUSTARD, ENG. Otis species, LAT.

Bit-miaki..... ... ...CAN.
Ostarde, Outarde, Houtarde, Bistarde .....FR.
Trepp ; Trappe ; Trapgans... .... GER.
Ackentrappe .... ,,
Der Grosse Trappe ,,
Jangli kaboot......HIND.
Starda ; Starda commune......... ... .IT.
Cowdun. .... PERS.
Jars..................... ,,
Gustard ....SCOTCH.
Abu-tarda.. ....SP.
Nil-Naray ....TAM.
Beet-miaka... ... ... TEL.

It is the Otis tarda, the great bustard, to which this name is usually given, but in the classifications by zoologists, the genus Otis, has three sub-genera, the Houbara, Eupodotis and Sypheotides, some species of which are usually termed floriken.

Eupodotis Edwardsii.—Gray.

Otis nigriceps..... VIG.
Tokdar...... ... ..HIND.
Sohun, Gugunbher in N. W. Provinces.
Gurrayin of Hurriana.
Otis lucionensis...VIELL?
Burra ... ... HIND?
Batt-meka......... ...TEL.
Bat-myaka...... ...... ,,

This noble bird is 4½ to 5 feet long, and extent 8 feet. It weighs lbs. 26 to 28. It is not known in Bengal, Behar or the Malabar coast, but seeks the open grassy plains of India. It is becoming very scarce in the cultivated country. In the Mysore country, in 1837, I once raised three or four in one morning's ride, to the east of Bangalore, but since 1845, I have never seen one, though I have since travelled over many thousand miles of the Peninsula. They are said to be, still, abundant in Rajputana, their usual food are insects, but they eat reptiles and fruits. They are polygamous and at the breeding season, the male struts about on some eminence puffing out the feathers of the neck and throat.

Otis lucionensis of China it is supposed may be a distinct species. Other species are E. nubra, *Ruppel*, E. ludwigi *Rupp.* E. Caffra *Licht.* E. Denhami, *Children.* E. Arabs, *L.* and E. Kori *Burchell*; A species very closely allied to E. Edwardsii, is the Otis Australis, *Gray*, the wild. Turkey of Australia.

Houbara Macqueenii, Gray.

Indian Houbara Bustard...............ENG.
Hurriana Florikin ,,
Tilaor...... ....HIND.
Otiss marmorata, GRAY.
Dugdoor of Affghanistan.
Obarra W. Punjab.

This bird has a beautifully crested head, is 25 to 30 inches long, and extended is 4 feet. It weighs 3¼ to 3½ lbs. It is supposed that both the male and the female assume the ruff in the breeding season. It is found throughout the plains of the Punjab, and upper Sind, where it is much hawked with the Charragh falcon, the Falco sacer, it also occurs from Delhi to Afghanistan, in Mesopotamia, in Europe and England. It occasionally baffles the hawk by ejecting on it a horribly stinking fluid which besmears and soils the hawks plumage. *Houbara undulata* occurs in N. Africa and Arabia and visits Spain.

Sypheotides bengalensis.—Gmelin.

Otis deliciosa......GRAY.
Bengal florikin.
Charas : charaj or charaz.... ... ...HIND.
Otis himalayana, VIGORS.
Dabar of Nepal Terai.

The Bengal florikin, is about 24 to 27 inches long, and 44 to 47 inches extended. In the breeding dress of the male, the whole head, which is crested, also the neck, breast and lower parts with the thigh coverts are deep glossy black. It is found from lower Bengal to all along the foot of the Himalaya. The sexes live apart, at no great distance from each other. They eat insects and sprouts of plants. It is shy and wary.

Sypheotides auritus.—Latham.

Kan-noul... ... ...CAN.
Charas or charas DUK.
Chulla charras... ,,
Likh..... ....HIND.
Khar titr of Bhils.
Otis fulva ... ... SYKES.
Lesser Florikin ...... ,,
Tan-mohr... .....MAHR.
Warragu Koli... ...TAM.
Niala-nimili .. ..TEL.

The Canarese, Mahratta and Telugu names mean "ground peafowl."

In breeding plumage, the male, in head, neck, ear-tufts, medial wing covers, and the whole lower plumage is deep black, the chin alone is white. It is 18 or 19 inches long and weighs 16 or 18 oz. Dr. Jerdon considers the black and common gray florikin to be identical, but in the plumage of different seasons; it is found throughout India from the Himalaya to the south. It eats insects and beetles. It is hawked by the "baz," the "luggur," the Shahin" and "Wokhab."

Otis tetrax L. the Tetrax campestris, is the small bustard of Europe, is said to have been found in the Peshawar valley and occurs in central and western Asia and North Africa.

The following are bustards of Africa, some of which spread into Arabia, viz. O. Rhaad, *Shaw*: O. Cærulescens, *Viell.* O. Scolopacea *Temm*: O. Afra *L.* O. Afroides. S. O Senegalensis, *Viell*: O. Melanogaster, Rupp. *Ainslie Mat. Med., p.* 396. *Eng. Cyc.* 697,701. *Jerdon Bird's, iii*, 606. See Aves: Birds.

BUST. A town of the Garmsir district in Sejistan. It is situated on the west of the river Helmand, and is noted for its great heat.

BUSTAN-AFROZ, HIND. Amarantus cruentus, properly, Bostan-afroz.

BUSTAR a native state west of Ganjam.

BUSTAR, two towns in India, one in L. 87° 5' E. and L. 21° 45' N. the other in L. 82° 26' E. and L. 19° 33' N.

BUR, HIND. Ficus India, also, Tamarix orientalis, Oreosersis lanuginosa, Cymbopogon iwarancusa.

BURA, HIND. Chopped straw.

BURA-AL, HIND. Morinda citrifolia.

BURABUR CAVES. The hills called Burabur are isolated rocks of sienitic granite rising abruptly from the plain about 15 miles north of the city of Gyah, by the left bank of the Phulgo or Mahanudda; the cluster is remarkable for its picturesque appearance, and for the noble masses of rock piled, as it were, one above another, with hardly any soil, consequently little vegetation, and rising to various heights, from 100 to 300 or 400 feet. Although Burabur is that by which the cluster is commonly known, each hill has a name of its own. The highest being called "*Burabur*," also "*Sidheswur*," from a temple to Mahadeva that once crowned its heights. The next in height is the "*Kowa Dol*," which is detached from the rest by near a mile to the south-west. A third is called "*Nagarjuni*," and is the easternmost of the great cluster. A fourth, and the smallest, called "*Durhaunt*," is at the northern extremity; others also, have names, but the above alone contain objects of notice. The *Kowa Dol* is an almost entirely bare rock having nearly a perpendicular scarp on its northern face, and sloping at an angle of 45°, more or less, on the opposite or southern side: east and west, it is disjointed and inaccessible; huge stratified masses are piled one over the other, decreasing in length at each end, the whole is surmounted by single blocks like pillars; the centre one of which towers above the rest and is conical. It is said that formerly there was a huge block balanced on the top of this cone, which from its being moved by birds alighting on it obtained the name of "Kowa Dol" or crow-moved, or the crow swing; about a century or less back, this rocking stone fell down to where it may still be seen. This hill seems to have been surrounded by a large town; there is an artificial mound continuous round the north and east faces, filled with broken pottery, bricks and blocks of hewn stone; there are two names given, "Saruin" and "Summunpoor;" on the portion called by the latter name there is an extensive mahomedan cemetry; there are none but paltry monuments with fragments of some ancient Budhist temples built into them. The caves of Barabur differ from all other works of the kind known to us. These caves or chambers are, with one exception, entirely devoid of sculpture or ornament of any kind. They are, in all, seven in number; four in one hill, three in another, but the name "Satgurba," commonly understood to mean "seven chambers," is applied to two only.

In the hollow or recess on the east side are the remains of a once splendid buddhist temple, of which many pillars are still standing; also a gigantic idol of Buddha, seated, with no other inscription than the usual pious sentence of the buddhists. The dimensions of this figure, which is beautifully executed, are as follows:—

	Ft.	In.		Ft.	In.
From seat to crown of the head	8	8	Lengthof upper arm	2	9
Across the shoulders	4	0	Do. lower do...	2	0
From knee to knee	6	0	Round the arm......	2	8
Round the wrist...	5	6	Do. the wrist......	1	6
Do. the neck......	3	8	Depth of head	2	6
Do. head..........	5	8	Do. of face	1	6
Across the forehead	1	4	Length of hand ...	1	4
Length of thigh. ...	3	6	Do. of foot........	1	6
Do. of shin..... ...	3	6	Breadth of do... ...	8	0
			Do. of do..............	8½	

The Sinhasun or throne, is very handsome; there are the usual supporters, the Sinha or lions rampant, trampling on elephants couchant, and ridden by amazons armed with shields and swords. The stone is the grey chlorite or potstone; of which almost all the idols in this district as well as of Orissa are made; from the style of the carving, and the alphabet of the inscription no very remote date can be assigned to these works; not more than 8 or 900 years, if so much. Leaving this buddhist relic we find some 60 or 80 figures of brahminical idols rudely cut in the huge detached masses of rock at the foot of the hill. Of these Durga slaying "Mahesh-Asur," is the principal, and most often repeated; the next is the Lingam, and again the Gouri Sunkur, or Mahadeva caressing Parbutti, who is seated on his knee, with the bull, "Nandi" at his feet, and the "Sinha" or lion at her's. There is one block hewn into the shape of a small temple, with niches and images on the four sides. It has formed part of a small Dehgopa to the memory of some departed devotee of a heretical sect; the great Budd'ha temple is likewise a funeral monument. The sculptures on the detached blocks are in a very rude style, but this may be attributable in some measure to the extreme coarseness and hardness of the material, as well as inequality in the grain. First niche, from proper right, male figure erect with a spear; 2nd, female figure "Pudmavati" or Maya devi"; 3rd, Budha seated; 4th, Mahadeva and Parbutti, commonly called "Gouri Sunkur," Parbutti seated on Mahadeva's knee with the bull Nandi at his feet, and the Sinha or lion at her's; 5th, male figure erect with four arms; No. 6, male figure riding on the shoulders of another; 7th, the Lingum and Yoni; 8th, male half figure "Aruna"? 9th, Mahadeva and Parbutti repeated; 10th, male figure erect holding a lotus in each hand, probably "Surya;" 11th, Gunesha; 12th, female figure with four arms, attended by Nandi and Sinha, perhaps meant for "Durga;" 13th, male figure standing on a prostrate figure. After these, nine niches have, what appears to be, Durga slaying Mahesh-Asur, with her trident; she has one foot on the buffalo's neck and holds it by the hind leg. This subject is repeated on many detached rocks. The Linga is of as frequent occurrence. There is one very large four-faced Linga called the Choumurti Mahadeva, such as may be seen in the caves of Ellora; it is of common occurrence in this district.

The inscriptions are in Pali, in the old Pali character, of No. 1 Lat., but they have been very imperfectly deciphered. The religion is buddhist.—*Notes on the Caves of Burabur, by Capt. Kittoe, 6th N. I. Beng. As. Soc. Journ. No. CLXXVIII, May*, 1847.

BURA-CHOOLI, Hind. Menyanthes indica.

BURAD, Hind. filings; raspings, chips. viz:

Burad-i-abnus, chips of Diospyros tomentosa.
Burad-i-ahan, iron filings.
Burad-i-bhuss, chopped bran.
Burad-i-Chini
Burad-i-jarob, chopped Anatherum muricatum.
Burad-i-shisham, raspings of Dalbergia sisso.
Burad-i-tamba, copper filings.

BARAGADDI, Tel. Ambrosinia unilocularis, R. iii. 493

BURA GUL KHAIRA. See Khatmi.

BURAK AND SURMU rivers which run in valleys of the Assam chain. The Naga, Mikir, Kachari Garo and Kasia, are the five races in whose possession chiefly are the broad highlands of that chain extending from the N. E. near the head of the Kynduayn and Namrup, on one side along the valley of the Brahmaputra to its southern bend round the western extremity of the chain, and on the other side S. westerly along the valley of the Burak and Surmu.

BURA KANUR, Hind. Crinum toxicarium.

BURANJASIF KOWHEI? Pers? Wormwood.

BURAQ. Mahomeds steed on which he rode to the seven heavens.

BURASGAON was occupied on the 5th February 1857.

BURATY, a Mongol nomade tribe, near the Baikal lake. The pronunciation of their name is also Pulate.

BURBULI, in Sind, the bulbul.

BURBUTI, Beng. Dolichos Sinensis.—*Linn.*

BURKCHARDT, John Lewis, a native of Denmark, who travelled in Egypt and Arabia, author of Notes on the Bedouins and Wahabies, also of Travels in Arabia.—he is buried near Cairo in the large cemetry outside the Bab-el-Nasr.—*Playfair. Burton's Pilgrimage to Meccah, Vol. I. p.* 168.

BURDA HILLS, in Kattiyawar. They end, in the South, in the Alich range and in the Oshum.

BURDA, one of the five northern districts of Kattyawar.

BUR DEWALI, a lofty tower in Jaganath about 180 feet in height and about 28 ft. square inside, in which the idol and his brother and sister Subahdra are lodged. See Jagannath.

BURDI. A wild Baluch tribe on the western banks of the Indus near Shikarpur.

BURDMAR, a river near Kaderabad in Suheswan.

BURDUR—? A tree of Cuttack, an excellent wood for carriage poles, shafts, and wheels, and in all coach builders' work, Sp. Gr. 1·000.—*Cal. Cat. Ex.* 1862.

BURDWAN, (1) the designation of a Civil Division of Bengal, controlled by a Commissioner; also (2) of a district in that division, the other districts being Beerbhoom, Bancorah, Hooghly, Howrah and Midnapore with an area of 14,195 sq. m. and a population of 5,339,307. It is also (3) the name of a town built on the banks of the Damoodah river. The district of Burdwan to the westward of the Bhagirutty river is a principality belonging to a rajah, and is considered the richest of all India. Including the sub-divisions of Cutwa, Culna, and Boodbood, the district has an area of 2693 sq. m. and a population of 1,088,813, coal has been found, in plenty, in the district.

BURDWAN COAL. See Coal.

BUREE, a district of the Uthbaree, of Kunawur.

BURENDA, also written Borenda, and Boorenda, a pass in the Himalaya, in Lat. 31° 23,' Long. 78° 12,' the length of the crest is 50 paces, and the crest is 15,171 ft. above the level of the sea. The most elevated part is a narrow glen, very steep. The pass leads from Kunawur through the outer Himalaya and is the easiest and most frequented in the neighbourhood. It leads from Jangleeg to Rasgramee and is open for seven or eight months, during the rainy season almost all the snow dissolves.

BURERWA, a stream near Gurrawarra.

BURETHI, Beng. Panicum paludosum.

BUREETHI, Beng. Cyperus verticillatus.

BURG, Pers. A leaf of a tree, hence,

-i-amrit-phal, leaf of Citrus limonum.
-i-anab, leaf of Zizyphus jujuba.
-i-bart, leaf of Calamus draco or Pterocarpus draco.
-i-hanna, leaf of Lawsonia alba.
-i-gul, also, Gul-barg, rose leaf.
-i-murad, leaf of Myrtus communis.
-i-tambul, Pers. Betel leaf.

BURGEE, a hindu race in the Woon district.

BURGHAT, a river of Rewah.

BURGHER, in Ceylon, is a term applicable only to white persons of pure Dutch descent, of whom there are now but very few in Ceylon; but the name has, by courtesy, been given to all those who in India are styled Indo-Britons, Eurasians, Anglo-Indians, or more commonly "half castes," namely, the descendants of Europeans by native women.

BURGHER, a name given by Europeans to the Badaga or Marves race of the Neilgherry hills often called Buddacar and Vaddacar. They have 300 villages and are 15,000 souls. They are scattered all over the hills and their lands occupy two-thirds of its area. They are much darker than the Todawar race. The tribe, a few generations ago, emigrated to the hills. They are a timid race deeply imbued with superstition; by the general term Burgher is understood the whole of the people who, since a certain period, have emigrated to these mountains. They divide themselves into no less than eight different, but little dissimilar, classes, and are all Saiva hindus. They are the principal cultivators, of the hills. Their language is principally the Carnatica, having but a small intermixture of the Toda. The Toda race call them all Marves, —their term for a laborer. But the Marves are called by the natives generally, and more correctly, Badacar, or Vadacar, from Badaga, or Vadacu, north, these people having come to the hills from that quarter. Captain Harkness computed their number about 10,000 souls. They are divided into two branches, or what may be considered two grand families. One called Peiki, or Teralli, and who are competent to hold all sacred offices, the other Kuta, or Tarda, who are competent only to hold minor ones within their own particular families, and who may be considered as the lay class. The Burgher is less in stature than the Toda, of a more slender form, and though straight and well-made, is under-sized in limb. In complexion, both male and female are some shades lighter than the Toda; but their features are quite of another caste. Both Toda and Badaka puncture the skin about the neck and arms and men and women wear much the same kind of ornaments, such as rings for the ears and fingers, necklaces, armlets, and girdles. The difference, however, is still so great, as immediately to strike the eye. The Burgher possesses much of the manner and appearance of the hindu cultivator of Mysore, and his wife, who seldom or never stirs from home, seems rather a domestic slave than the mistress of a family. The fidelity, of their women appears of but little estimation among them. Although the Burgher, generally, may be considered much more cleanly, both in their houses and persons, than any of the other tribes, they are still, in this respect, far behind the natives of the plains.—*Harkness Neilgherry Hills, p.* 117.

BURGU, Hind. Phytolacca decandra.

BURGUNDY PITCH., is a product probably of the Abies excelsa; it is of light yellow color, often adulterated with dammer or gunda barosa. See Frankincense.

BURH, Hind. Ficus Roxburghii.

BURHAL—? A light yellowish colored wood, not strong. Plentiful in the Santhal jungles from Sooree to Hasdiha; or about sixty miles. Used for doors, venetians, furniture, &c. by the natives.—*Cal. Engineer's Journal*, 1860.

BURHAMPOOR a town in India, in L. 88° 20' E and L. 24° 5' N.

BURHANPORE, taken by General Wellesley on the 13th October 1803.

BURHOLIA, a branch of the Bhrigubansi Rajputs settled at Burhoul near Benares.—*Ell.*

BURI OR BULI. The name of a Philippine palm, probably the Corypha gebanga of botanists, and the Gabang of the Malays and Javanese. The Philippine islanders make much use of the several parts of this palm.

From the leaves they make mats, from the sap both sugar and a distilled spirit, from the pith a sago, and from the seeds rosaries, while the spines boiled in water yield a thread from which a coarse cloth is woven, called Sagoron. —*Crawfurd, Dic. p.* 77.

BURI, HIND. Vitis Indica.

BURIAL CUSTOMS; amongst the various races occupying the south and east of Asia, these are almost as varied as are the races, themselves. It is often remarked that the mode of disposing of the dead, has, from the earliest times, been symbolomatic of the opinions as to the worth of the deceased while he was amongst them or indicative of their views as to the future condition of the departed. In general, there has been little display over the remains of women, but, whether with men or women, the prevailing habit has been to convey the remains to some quiet resting place with a decorous solemnity and there erect some lasting memorial over them. With some races, however, even to the present day, the departure of a friend or relative is regarded joyfully, and the procession to the place of final disposal is mirthful; while other races even cast out their dead and allow the remains to be treated with indignity. But the anxiety of the generality of nations in all countries, has been to perpetuate the memory of the departed, and everywhere are to be seen sepulchral monuments, raised with that object. Many of these exist from prehistoric times, and in most cases, form the sole remaining history of the races who erected them.

At the present day, monuments erected with brick or stone, and in the form of pillars or upright or horizontal slabs of stone, or cupolas or domes or sarcophagi, beneath which the remains are laid, are the usual modes of marking the deceased's resting place. But in more primitive times, the cairn or heap of stones, the monolith; the cromlech; the circle; the heaped up barrow of the Celtic tribes, the tumulus, as the Romans called it, were usually resorted to.

The cairn was formed of stones gathered from the vicinity and set round about the resting place of the dead and piled over them. The monolith or single stone was usually placed perpendicularly near the spot: The cromlech, consisting of two, three or more upright stones, with a flat stone placed over them, formed a sepulchral chamber and was the earliest approach to the cupola or dome. The circle, or enclosure of upright stones, set singly at varying spaces apart, are found surrounding the cromlech, or cairn. Of all these the barrow, or tumulus, often raised to a considerable height and covering a large area, is the most noble, and has been the most enduring, and with them the bodies of the departed were not interred in graves sunk below the surface, but were placed on the surface of the ground and then the earth was heaped up. The barrow, many of which have been opened, are found sometimes to contain skeletons; in other cases urns only: while, occasionally, both urns and skeletons or urns and ashes appear together: the urns are often found to contain burnt bones, and relics, but in the earliest barrows, are war weapons, such as stone hatchets and hammers, celts of the same material, both arrow heads and spear heads of flint, with beads of various substances, and torques or collars, and armlets of gold or bronze. Somewhat later, the celts and weapons are of bronze, and the sword is found to have been broken, indicative that the warriors race had been run. The ornaments remain the same and coins are found.

The methods adopted for the disposal of the dead from the most ancient times have been interment, burning, embalming and exposure. Of all these, the first seems to have been the most general and primitive. Cremation is undoubtedly very ancient, for, king Saul was burnt and his bones afterwards buried and Asa was burnt in the bed which he made for himself filled with sweet odours and various kinds of spices. In Egypt the practice of embalming obtained from their earliest history, but the practice was confined to that country and arose from its people holding it unlawful to expose the remains to fire or to animals or to permit them to become a prey to worms. The vast catacombs still remaining on the banks of the Nile were the common receptacle for the general population who could not afford a separate tomb —(*Boutell's Manual of British Archæology, London*, 1858, *p.* 100 *et sequent*)

In British India and in all the South and East of Asia, interment, cremation, and exposure are all practiced by one or other of the races occupying it. Java, in the Archipelago seems to have been peopled from the continent of Asia, and its people have the three modes of disposing of the body of a deceased person: by fire, termed "*Obong*;" by water, termed "*larung*;" or by exposing it upright against a tree in a forest, where it is left to decay, termed "*setra*." When the body of a chief or person of consequence is burnt, it is usual to preserve the ashes, and to deposit them in a "*chandi*" or tomb.—(*Raffles' History of Java, Vol. I. p.* 337.

The Ninevites, in all their various monuments, have left us no trace of their ideas concerning the dead, while their neighbours, the Babylonians, attached that care to the rites of sepulture which betokens strong belief in another life. The sepulchral urns obtained in Babylonia, contain the remains of the dead, with jars and utensils for food and water made of baked clay, and with remains of date stones, the head of the dead reverently laid on a sun dried brick as a pillow. Their ancient tombs, rare in Assyria and upper Babylonia, are chiefly in Chaldea proper, and the Rev. G. Rawlinson (i, 107) suggests that the dead may have been conveyed to the sacred land of Chaldea, similarly as the Persians even now send their dead to Karbila and Meshid Ali, and as the Hindus from remote India, send the bones or the entire bodies to the Ganges at Benares. Chagda or Chaekrada, near Sooksagur is an abyss said to have been made by the chariot wheel of Bhagiruth. The legend points to an antiquity which is not borne out by any old vestiges or ancient population. But the place is a great Golgotha where the dead and dying are brought from a great way off to be burnt and consigned to the Ganges. The deceased is seldom conveyed by any of his relations, unless from a short distance. Poor people generally send forward their dead for incremation in charge of bearers who never betray the trust reposed in them.—(*Tr. of H. Vol. I. p.* 18.)

The Romans generally burned, but they sometimes buried, their dead, and children who died in infancy were interred in the immediate neighbourhood of their former homes. Their sepulchral urns with the ashes of the dead were commonly buried about two feet below the surface, and their memorial stones were often inscribed. They used the Sarcophagus or massive stone coffin and also the tumulus or barrow.

The Romans bore their dead with much lamentation to the funeral pile, on which, after being lighted, they cast the robes and arms of the deceased, as well as the slaughtered bodies of his favourite animals.—(*Ed. Jour. July* 1867, quoting *Madden's Sepulchres, Vol. I. p.* 363, 457. *Picard.*)

The ancient Greeks, in laying out their dead, always placed an obolus or Greek coin in the mouth to pay Charon's fare across the rivers Styx and Acheron, and a cake made of flour and honey to appease Cerberus. Amongst them men cut off their hair, when they obtained the age of puberty and dedicated it to some deity. Theseus is said to have repaired to Delphi to perform this ceremony and to have consecrated his shorn locks to Apollo. After this, it was again allowed to grow long and only cut off as a sign of mourning. Thus, at the funeral of Patroclus (*Iliad XXIII*) the friends of Achilles cut off their hair and "on the corse their scattered locks they throw." In some parts of Greece, however, it was customary to wear the hair short and to allow it (*Cassandr* 973) to [illegible]

Neglected hair shall now luxurious grow,
And by its length their bitter passion show:

In Luristan, the female relatives, on the death of their male relatives, cut off their hair, and hang the locks around the tomb. The practice of the young women and young men of the Island of Delos, was something similar; they cut off a lock of hair before marriage and placed it near the tomb of the virgins from the Hyperboreans.—(*DeBode, ii.* 218,19.)

The hair of hindoo women, and often that of men, is frequently made a votive offering to their gods. Crowds of hindu pilgrims are to be seen moving towards Triputty and other holy places, but the women return with heads shaven.—(*Eng. Dom. Mag. No.* 49.)

The most enduring monument to the memory of the dead, however, have been the barrows or mounds of earth, so largely used by the nations of Central Asia, from the Mediterranean to the Pacific ocean, both in ancient times and now. The king of Ai slain by Joshua (*Joshua VII.* 26, *VIII.* 29) was placed at th[illegible]nce of the city, and over his body was ra[illegible]reat heap of stones. Herodotus mentio[illegible]hat the barrow of Alyattes king of Lydia was 1,300 ft. broad and nearly a mile in circumference, and it has been identified by modern travellers.

Barrows were the favourite memorial of the Teutonic race, some of them very large, but the Saxons used also cists or stone coffins.

The custom of raising tumuli over the remains of the mighty dead seems to have been prevalent in the Central Asiatic region from the most ancient times and been taken into Scandinavia. Ezekiel in the 32nd Chapter and 27 verse describes the practice of slaying persons and interring them with their dead chief, and Herodotus describes the barrow burial of the Scythians; and to the present day, in the region of the Kar Karella and in many other parts of the steppe occupied by the Kirghis are numerous tumuli of great size. Herodotus tells us that when a king died, his corpse, embalmed and covered with wax, was conveyed in a chariot in solemn state to the place of sepulture: a large quadrangular pit was dug; in this they placed the royal corpse on a mattress of straw; on each side of this they planted spears, and covered it with wood, and roofed it over with hurdles of willow. In the remaining part of the pit they interred one of the late king's women, strangled for the purpose, together with his cupbearer, his cook, his groom, his minister, his courier, his horses, as well as some articles of every kind—including several goblets of gold—that he might be supposed to need in his journey to the other world. This done, the people eagerly contended with each other in the work of heaping over the whole a mound of earth as vast as possible.

The proceedings did not here terminate, for, the year following, fifty of the late king's confidential attendants and fifty of his horses were slain, and placed, the men on the horses, around his sepulchre.—(*Melp.*, 71-2.) When Changiz Khan died his remains were covered with a lofty mound and extensive forests were planted to exclude the footsteps of man. Colonel Tod tells us that the tumulus, the cairn, or the pillar, are still raised over the Rajpoot who falls in battle ; and throughout Rajwarra these sacrificial monuments are found, where are seen, carved in relief, the warrior on his steed, armed at all points ; his faithful wife (Sati) beside him denoting a sacrifice, and the sun and moon on either side, emblematic of never-dying fame — *Tod's Rajasthan, Vol. I, p.* 74) In Saurashtra, amidst the Catti, Comani, Balla, and others of Scythic descent numbers of Palia, or Joojar (sacrificial pillars), are conspicuous under the walls of every town, in lines, irregular groups, and circles. On each is displayed in rude relief the warrior, with the manner of his death, lance in hand, generally on horseback, though sometimes in his car ; and on the coast, " the pirates of Boodha" are depicted boarding from the shrouds.

In the Panjab, near Bamian, in Affghanistan, and near Kabul, the sepulchral monuments remaining of ancient times, are topes. They consist of a mound on which is erected a cupola, supported by walls of masonry more or less in a Grecian style of architecture. One near Manikyala is 80 ft. high and 320 ft. in circumference. In its centre were found vessels of gold, silver and copper, with coins of Rome and of the Bactrian Greeks. In a chamber sixty feet deep was a copper box containing animal remains.

Many cairns are found in different parts of Southern India and, prior to the Stupas, or Topes, this seems to have been a common mode of covering the dead; indeed, as Colonel Cunningham remarks, the Tope is only a cairn, regularly built. On the Neilgherry hills are found remains of cairns, barrows, cromlechs, kistvaens, and circles of upright loose stones, which are nearly identical with those found in Europe, in the ancient seats of the Celts. In these cairns or barrows, are found vases, cinerary urns, and other vessels of glazed pottery, which sometimes contain human bones, more or less charred, and mixed with ashes ; sometimes a little animal charcoal alone. They are met with in various districts in the Presidency of Bombay, in almost every part of the Dekhan and peninsular India, from Nagpore to Madura, in immense numbers on the Anamalay Hills, a range on the south side of the great Coimbatore gap, which forms the commencement and northern face of the Southern Ghauts, those on the Anamalay being of a more advanced order and a better condition than the Neilgherry barrows. Similar remains are found in Circassia and Russia, and circles of stones surrounding ancient graves are found on the South Arabian Coast and in the Somali country in Africa. Major Congreve directed much attention to those on the Neilgherry Hills, and Captain Meadows Taylor discovered and examined a large number of these remains at Rajan Kooloor, in Sorapoor and also at Siwarji, near Ferozabad, on the Bhima, and devoted much attention to the comparison of them with similar remains found in England. He calls them Scytho-Celtic or Scytho-Druidical. Neither the hill people, the Toda and Curubar, nor any hindu, know anything about the race to which these sepulchral remains belonged, and neither in Sanscrit literature, nor in that of the Dravidian languages is there any tradition on the subject. The Tamil people generally call these cairns pandu-kuri, kuri means a pit or grave, and pandu may refer to the Pandu or Pandavan brothers to whom so much of hindu mythology relates. The race who raised these cairns were probably dwellers in the country prior to the advent of the present Dravidian occupants, and were expelled by or ultimately became absorbed in the latter, or they may have been a nomade shepherd race who had wandered into India after it was peopled and settled, and then wandered out again or became absorbed amongst the people of the country. But the remarkable fact connected with the people, whose religious rites and usages of sepulture gave rise to these cairns, is that they have everywhere disappeared from Southern India, and not even a tradition of their existence survives. The resemblance of the barrow and their contents (with the cromlechs, &c.), to the Druidical remains which are discovered in the ancient seats of the Celtic race in Europe, is too exact and remarkable to be accounted for on any other supposition than that of their derivation from the same origin. Hence, the people who introduced such rites into India, must have brought them with them from Central Asia.—(*Dr. Caldwell's Grammar.*)

In the centre of Peninsular India, around Hyderabad in the Dekhan and at Bolarum and at Secundrabad, there are many burial places of that race of whose existence nothing is known : and about 20 miles S. E. of Secunderabad is one great resting place of the dead, a vast burial ground extending over miles, which must have been the place of interment of a vast number of people or through many centuries. The mode of interment, in all these, has been to select a large stone, beneath which a deriving tunnel or way had been excavated, and the remains of bones and urns, with weapons, are found deposited in a central cavity, a circle of large loose stones being drawn round. The circumference of some of these circles being between one and two hundred yards.

The people whose tombs are thus represented were undoubtedly nomades dwelling in tents, for not far off are the remains of a great nomade city, consisting solely of walls within which the tents must have have been erected, for no stone nor earth heap nor mound remain within the stone enclosure to indicate the former existence within of any building. The remains found within these, also, leave the impression that, as with the barrow burials, the wives and servants were slain and interred along with the chief person, and the hindu and rajput practice of Suttee would seem therefore to be merely a continuation of the ancient scythic sepulchral rites of immolating the favourite wife, the servant and the horse to accompany their master and serve him in the next world.

In British India, up till the year 1830, any widow was allowed to immolate herself on her husband's funeral, but it was then authoritatively put a stop to. In the feudatory states a widow, still, occasionally follows her husband in that manner, but the practice is now chiefly confined to the hindu islands of the Eastern Archipelago. In Lombok a widow is allowed to burn herself with her husband's remains, but when a rajah dies, some of his women are always burned, even if they should be but slaves, but they have the option of being kreesed or burned. It is always a near relative who gives the first wound with the kris but never the father or son.

The Jewish and Christian view of the future world is as a place of peace and rest and spiritual joys in the presence of the Creator. The buddhist and hindu and Chinese belief comes nearest to that, for they regard existence as a calamity and the extinction of being or annihilation as the ultimate hope and aim of the good, who shall then be at rest from the cares of this world in which all things are transitory, productive of unhappiness and unreal. The future worlds of other Eastern races are more or less of a physical character. But even the christian treatment of the dead is various — and in Europe, to this day, the indifference, not to say levity of the Italians, in all relating to their dead, contrasts strangely with the tenderness and sentiment of the Germans, both Romanist and Protestant, as displayed in their cemeteries. In Naples, where are two cemeteries, with a pit for each day of the year; the humbler are stripped, and after a priest has read prayers over the bodies, they are all thrown into a hole by the cemetry assistants, amidst oaths and jocularity and laughter. The richer dead are stripped, placed in dry sand to be shrivelled up, and when dry they are dressed in their usual clothes, ticketed and placed in a glass case. The German race, on the other hand, reverently dispose of their dead, and preserve in neatness the grounds and tombs of their cemetry, which they call Gotts aker, God's field.

In Ceylon after burning the bodies of the deceased kings of Kandy, their ashes were carried by a man in a black mask to the Mahawelli Gunga, where he embarked in a canoe. At the deepest part of the river, he clove the vase with a sword, scattered the ashes on the stream, and, plunging headlong after them, dived, arose near the opposite bank, whence he fled to the forest and was presumed to be never more seen. The canoe was allowed to drift away: the horse and elephants that accompanied the procession were set at liberty in the woods; and the women who had strewed rice over the remains were transported across the river and forbidden to return. Several of the hindu customs resemble practises mentioned in the old Testament, as in (*Jeremiah XVI.* 6.) ' Neither shall men lament for them, nor cut themselves.' For the hindoos, on the death of a relation, express their grief by loud lamentations, and not unfrequently in an agony of grief, bruise themselves, with whatever they can lay hold of. *Ezekiel XLIV.* 25. ' They shall come at no dead person to defile themselves,' and touching the dead defiles a hindoo, who must bathe to become clean again. *Job XXVII.* 19. "The rich man shall lie down, but shall not be gathered,' *i. e.* his soul shall be left in a wandering state. The hindoos believe that persons for whom funeral rites have not been performed, wander as ghosts, and find no rest. *Jeremiah XXXIV.* 5. ' So shall they burn odours for thee.' Scented wood and other odoriferous substances, are placed upon the funeral pile of a rich hindoo, and burnt with the body. *Matthew II.* 18. ' Rachel weeping for her children, and would not be comforted, because they are not.' The lamentations of a hindoo mother for her child are very loud and piercing; it is indeed almost impossible to conceive of a scene more truly heart-rending, than that of a whole town of such mothers wailing over their massacred children. "In Rama was there a voice heard, lamentation, and weeping, and great mourning."

As a rule, the dead of the Vaishnava hindus are burned. As death draws near, a lamp is lit at the bed head, and a " homa" sacrifice performed, with camphor and a coconut, and, as life dies away, the five elements are dropped into the mouth of the moribund from a tulsee leaf. Within two or three hours, the body is lifted, and this is done early as none of the household nor any of the neighbours can partake of food until the remains be disposed of. The pile of wood or cowdung cakes used is about two feet high and on it are placed some tulsee leaves, a little sandal wood, and the deceased is laid with his feet to the north. When laid on the pile, a cloth is placed over the face, and raw rice is placed on it over the mouth. The heir of the deceased places a charred bit of sandalwood or a tulsee branch at each corner of the pile, and a Vityan sets fire to the mat, using fire taken from the sacred fire lit at the bed side of the dying man. On the following day the heir and friends visit the pile, remove the skull and the bones, on which he and all with him pour water and wash them,—wash them with the sikai, anoint them with oil and honey and clean them with milk, and place them all on plantain leaves anointed with butter. A young cocoanut shoot is then placed on the skull, and the whole put into an unburned earthen pot and taken or sent to a river or to the sea—the person who conveyed it returning to the temple, where he pronounces aloud the deceased's name and adds " pray for him." Often they are sent to a holy river, even to the Ganges and Benares. The men relatives shave. The hair of the brahman widow's head is shaved. The body is not always carried through the doorway of the house. If it be an unauspicious day, or if the house door be so placed that the court yard has to be crossed, then the remains are carried through an opening broken in the wall. The remains of hindus are unclothed for the last rites.

Children under eight years of age and unmarried girls are buried as also are all who die of small pox, as the belief is that this ailment is a manifestation of the presence of the goddess Ammun, Mariatha, Mariamma, or Kali, and the anger of the goddess would revert on the family, if burned.

In the mode of disposing of the dead, the wish expressed by the deceased is attended to. Vedantists all bury, also all the Gosai, all the Lingait, or Vira Saiva, the five artizan castes the " Kansala" goldsmith, carpenter, ironsmith, brasier, and stone cutter, all the Byragi and Sanyasi, and the Gurus of the sects, the Pandarums, the Kashai, likewise all the non-arian races, and tribes not admitted into hinduism. The Vedantist dead and those of the Lingaet and artizans are placed seated, the latter in a grave five feet square with a ledge on the south.

As life becomes extinct, the body is made to assume the attitude to be preserved in the procession and in the grave. It is placed against a wall; the legs are crossed underneath in the usual sitting attitude and the head is fastened to a nail driven into the wall, and so retained till rigidity ensue.

They are borne to the grave in a car, on the shoulders of relatives or friends. On reaching the burial place, the Oodwan reads prayers, and the body is seated on the side ledge with its face looking northwards: salt and ashes of cowdung are placed on the head.

Amongst the Aryan hindu, the great bulk believe in spirits and worship them: their worship of ancestors " pitri" is continuous, they also believe in demons and evil spirits: transmigration through clean and unclean animals is a point of faith and a great majority regard the soul as an emanation from the deity, and look to reabsorption and annihilation as the point of attainment for the good.

The mahomedan when about to die, has his spirit calmed by the "Yasin" chapter of the Koran being read to him, and is either washed (Ghussal) at his own house, or taken within a few hours to a Ghussulkhana, specially built for the purpose near the cemetry, and where men or women washers perform the duty and then put on burial clothes and apply camphor and antimony. The body is conveyed in a box with much solemnity, with wreaths of flowers and perfume laid over the covering: the coffin is carried on men's shoulders, and from time to time is heard the Ty-eb part of the mahomedan creed " There is no deity but God, and Mahomed is the prophet of God," and on reaching the grave, funeral service is read consisting of the four portions of their creed (takbir) and a blessing (dua) is asked which all present repeat. After the Fatiha, the body is lifted from the coffin and gently lowered into the grave, laid with the head to the north and feet to the south, and turned on its side with the face towards Mecca. Each person then takes a little earth, and repeating the words in chap. 112 of the Koran " we created you of earth and we return you to earth and we shall raise you out of the earth on the day of resurrection," he puts the earth gently into the grave. The body is then protected with wood and covered in. The Fatiha is again repeated, and again at the door of the cemetry and at this juncture, two angels, Moonkir and Nikir, approach the dead, make him sit up and inquire who his God and prophet are and what his religion is. If he have been a good man, his answers are satisfactory and odours from paradise are diffused around the departed. But, if bad, he is bewildered and the angels torture him. They believe that the dead continue in a conscious state, and dogs and horses or other polluting animals are not allowed within the cemetry; women, also, do not enter lest the repose of the dead be disturbed. Mahomedans do not speak of a person as dead; they say he has passed away ; has taken his departure, and the living all believe in, and hope for, resurrection in a future state " They who believe and do that which is right, shall enjoy blessedness, and partake of a happy resurrection. *** Paradise *** is watered by rivers ; its food is perpetual and its shade also ; this shall be the reward of those who fear God ; (*Koran, Ch. XIII*) " Therein are rivers of uncorruptible water ; the rivers of milk, the taste whereof changeth not ; and rivers of wine pleasant unto those who drink ; and rivers of clarified honey and therein shall they have plenty of all kinds of fruits ; and pardon from their Lord. (*Ch. XLVII*) There shall be gardens with shady trees ; with fountains flowing, couches of silk interwoven with gold ; beauteous damsels with black eyes lying on green cushions and beautiful carpets, fruits, palm trees and pomegranates, (*Ch. LV.*)

The monuments or mahomedan tombs have usually been of earth, or of unbaked brick ; but every material and of the most enduring kind, is employed, and the names are sometimes written on the tombstones. The tombstone of a man is distinguished by a raised part in the centre, and that of a woman by a depression. In Turkey, a pillar with the carved figure of a turban distinguishes the grave of a man. The prevalent form in India of mahomedan tombstones of the rich is a dark or black tombstone with verses of the Koran engraved on it, and covered by a cupola. Some of these domes are very magnificent. Those of the Adal Shahi dynasty at Bijapore and Gogi have attracted much attention, as also have those of the Bahmani dynasty at Gulburgah and Kutub Shahi dynasty at Golcondah. The cupolas at Roza where Aurungzeb is buried have not any display, and that of Aurungzeb is the least ostentatious. His daughter's tomb at Aurungabad is magnificent and many of the tombs at Delhi and Agra are great structures. That of Mumtaz Begum, known as the Taj Mahal, is particularly remarkable. The reformers amongst the mahomedans consider that unbaked brick or earth should alone be used.

The christian doctrine that man, in all that he can do of good, is still without merit, is not shared in by any of these sects, the mahomedan, the buddhist or the hindoo, who all consider that a personal merit is gained by their good doing, and a mahomedan passing funeral of a mahomedan, turns with it a short way and lends his shoulder to convey the body to the grave, to bring a merit on himself.

The Parsi or Zoroastrian race are to be found scattered from Hongkong in the East, to Britain in the west, the small but intellectual remnant of the once great Median nation. A considerable body of them dwell in Bombay, in Guzerat and the western towns of India. They invariably expose their dead. Their sick are never allowed to expire on a bed. When the moment of passing away is near, the sick person is removed to the ground and bathed and washed. The reasons alleged for this removal are various; but the one ordinarily accepted amongst them is that a dead body is an unclean thing, necessitating that all who touch it shall destroy their clothes and whatever is touched by it must be destroyed. For these reasons, the dead, in Bombay, are carried by a class of Parsees called " Nessus salar,"—Nessus meaning unclean (Najis, Pers.) These men carry the remains to the Dokhma or tower of silence and lay the body on its raised upper floor. The Dokhma is without any roof covering,—is open to the sky, so that birds of prey, vultures, kites, have the freest approach. The raised floor has a deep well surrounded by a raised platform with channels converging to a well. The corpse is laid on a partition of the platform, and the decomposing matters flow along the channels into the well. When the well is full, the bones are removed and buried outside the Dokhma. The fire-priests are paid to pray for the dead, monthly, for a year, and thereafter on every anniversary of the demise. After the demise, and before the removal of the body, a dog is brought near to gaze on the departed. This is the " Sag-did" or dog-gaze, and, by one account, is said to be had recourse to with the object of ascertaining, from the dog's movements, the state of the soul of the departed ; by another account, it is practised from the belief that the dog is a naturally chaste animal, and the view of the chaste dog falling on the dead will expedite the translation of the soul to heaven.

The non-Arian races of British India are estimated at 12, 213, 222 souls, but except the great Gond nation, and the Kol, the Bhil, and the southern Shanars, most of them are in small tribes, and many are occupying forests and mountain fastnesses, or are dwelling on the outskirts of towns. They, in general, bury their dead.

The Sowrah race occupy the hill ranges of the Northern Circars—mostly those hills near Chicacole, near Kalabanda and southwards as far as Bradachellum, and they bury their dead with their weapons.

The Chenchwar race, further south, in the forests of the Nalla-Mallai, bury their dead and sometimes burn, but, like the Tartar races, they carry the deceased's weapons to the grave.

The Kuki race of Assam were much addicted to make inroads on the plains, not for plunder, but to procure heads, and they have been known to carry off fifty heads in a night. On the death of a chief, the body is smoke dried and kept for two months with the fa ly. If a rajah fall in battle, they immediately proceed on a head hunting expedition and bring in the heads of those they kill, hold feastings and dancings and, after cutting the heads into pieces, send a portion to each village. This is considered in the light of sacrifice to the manes of the deceased.

The race occupying the Khassya hills, 4,000 to 6,000 feet above the level of the sea, inter their dead on the undulatory eminences of the country. These are dotted with groups of huge unpolished squared pillars and tabular slabs, supported on three or four rude piers. Menhir are there, one of them 30 feet out of the ground, six feet broad and 2½ feet thick and in front of each is a dolmen or cromlech, of proportionately gigantic pieces of rock.

In Tibet, the sovereign lamas are deposited entire in shrines prepared for their remains which are ever afterwards regarded as sacred and visited with religious awe. The bodies of the inferior lamas are usually burnt and their ashes preserved in little metallic idols, to which places are assigned in their sacred cabinets. Ordinary persons are treated with less ceremony —some are carried to lofty eminences where they are left to be devoured by ravens, kites, and other carniverous animals. But they, also, have places surrounded by walls where the dead are placed.

The Mongols sometimes bury their dead; often they leave them exposed in their coffins, or cover them with stones,—paying regard to the sign under which the deceased was born, his age, the day and hour of his death, which determine the mode in which he is to be interred. For this purpose they consult some books, which are explained to them by the lamas. Sometimes they burn the corpse, or leave it exposed to the birds and wild beasts. Children who die suddenly are left by their parents on the road.—(*Timkowski's Journey to Peking, Vol. II. p.* 312.)

In Spiti, in the N. W. Himalaya, when a person dies, the body is sometimes buried, or burnt, or thrown into the river, or cut into small pieces and burnt, admonitions are made over the body to the departed spirit, such as do not trouble yourself, you cannot enter it (meaning the dead body) in summer it quickly becomes corrupt, in winter it freezes and is too cold for you.

Amongst the buddhist Burmese, whose religion teaches them to look on death as a release from the cares and troubles of the world, as a possible cessation of transmigrations and the longed for arrival of annihilation, the cremation of the remains of friends, relatives and teachers, are not seasons of grief, the spectators are often able to look on them with joy. The Rev. Mr. Marks went to see a sick pupil, whose mother met him at the door. To Mr. Marks inquiry as to her child's state, she replied, he is well, he is well, and skipping half joyfully, half hysterically, before him led him to an inner room, where the pupil lay dead, but the bereaved mother, full of faith, was still able to say "he is well." The remains of holy men, the Phoongie, are not soon removed. Their bodies are placed in honey, sometimes for a year or more. One at a Phoongie house in Kemmendine, adjoining my dwelling house, was kept in honey for a year, and then removed. In the process of embalming, the body is placed in honey for a few weeks, the intestines are then removed, and replaced by spices, and the body is encased in a sheathing of wax, which is coated with lac and this gilded with gold leaf. The body is then left to dry on a staging, under a white umbrella, and finally the coffin is placed on a model of a kneeling elephant, made of wood and paper. On the day appointed for that funeral, a great crowd assembled, and with two ropes attached to the car one part of the multitude pulled it towards the place of cremation, another pulled against them, and with shouting, and laughter, drumming and uproar, the remains at length reached the burning place and were burned. Looking quietly at the opposing multitudes their antagonism seemed a representation of some ancient idea of good and bad spirits, battling for the dead. But the object of this struggling to draw the car onwards and to retard it is unknown.

In September 1870, the remains of the queen mother of Burmah were burned between the inner and outer walls of the palace, to the north of the main entrance. A large space was enclosed by a fence or yazamat, in the centre of which the burning took place. Inside and outside of this, numerous temporary sheds were run up for the princes, queens, ministers, &c. Above, where the fire was to be placed, a lofty structure of bamboos was erected; this was covered with white cloth. The body of the late queen mother was laid out in state in one of the pavilions to the south side of the palace, the gardens being for the time open to all, the troops were under arms in the great square and other parts of the palace open to the public, a large space in front of the enclosure being kept clear for the king and his retinue. About 10 A. M. the first of the procession accompanying the coffin appeared at the inner gate of the palace and slowly marched towards the pyre all taking up their respective positions with order and regularity. Save the troops, all taking part were in white, but the numerous gilded palanquins, gold umbrellas, together with the splendid bier, with the white umbrellas joined to the green coats, red the troops; with the numerous elephants gaudily trapped, placed here and there, made the scene barbarously splendid. Following or preceding the bier were the princes and princesses, the queens with the Pakan Meng, the late king. He and the first queen, whose mother the deceased was, walked in front of the bier. About a quarter to eleven the great inner gates were again thrown open for the exit of the king and retinue. The king was seated in a large gilded palanquin, borne on the shoulders of some 40 or 50 men, and was accompanied by four of his daughters and one son, all young. He, like all the others, was dressed entirely in white. Advancing up to about ten yards from the front of the enclosure the palanquin was halted, the retinue and guards filing off right and left and forming a large hollow square. Prayers were said by several Phoongye, the king gave directions as to the exact minute at which the cremation was to commence, the bearers turned round, the procession was reformed, and moved inside the great gates which were again partially closed, while drums, tom-toms and cymbals were beaten, and trumpets (?) sounded, amidst a tumultuous noise. The queen, princes, Pakan Meng, &c., &c., returned to the palace shortly after the cremation was completed in the same order as they came out. The coffin was overlaid with gold to the extent of 7½ viss which was afterwards distributed among the Phoongye or to be applied to the building of a pagoda. Charcoal was employed at the burning of the body and was kept at a red heat by numerous bellows placed all round. The whole of the body with the exception of a small part of the back of the skull was reduced to ashes or at least consumed on the fire. This small piece, little bigger than a rupee, was placed in a gold cup closed by a lid studded with rubies, while the remains of the charcoal and ashes were placed in earthen-ware vessels to be carried to the river. The gold cup was confided to an official who took his place in the hearse. Having arrived at the river bank, those deputed for the purpose entered two gilded boats lashed together, but a little apart, which were rowed out into the centre of the stream. Here a halt was made, the bearer of the gold cup, with it rolled up in his putzoe, jumped into the water and while he was underneath let it go. At the same time the jars of ashes had their contents poured into the stream, the man was picked up and there was an end of the whole.

In Siam, the poor are buried or exposed to beasts of prey; if above the lowest class, the deceased after the bowels have been extracted, is laid in a wooden coffin, externally lacquered and gilt and this is placed for some days on a high table. In the mean time, the priests light up tapers, burn perfumes under the coffin, and chant funeral hymns at night. A procession of relatives and friends dressed in white and covered with white veils follow the corpse. Beside it, are borne figures of various animals or singularly shaped monsters carved out of bamboo and the accompanying talapoins exclaim we must all die, we are all mortal. The mourners attest their sorrow by their tears and often hire women for the express purpose. The body is then taken from the coffin and placed naked on the pile which is set fire to and the remains are scorched. The body is then replaced in the coffin and deposited under one of the pyramids erected about the temple. Graves are held sacred among the Siamese and their violation is considered as a heinous offence. They refuse the honor of burning to persons killed by accident, by lightning, to the still-born, to those who die in child-birth, or from smallpox, and to suicides. The remains of such are either thrown into the water or exposed to beasts of prey.

With the Chinese, when life has departed, the dead body is arrayed in robes of state, or in most costly apparel; ablutions are not performed, nor any unnecessary handling of the body suffered. White is the sign of mourning. The Chinese worship the spirits of the dead, and, amongst that nation, the desire to have a good coffin is universal. Many purchase for themselves that last tenement and keep it by them, and it is usually substantial, of metal or wood. In Burmah, where many Chinese are settled the best block of teak is selected and the upper portion being sawn off to form a lid, the block is hollowed and ornamented. These may be seen in Moulmein in every carpenter's shop.

In China, the coffin-maker's shops have a very gay, instead of a lugubrious appearance, as the coffins are usually painted red, or some equally bright colour, and the more expensive ones are decorated profusely with gilding; these coffins are placed on shelves one above the other, and the prices vary from one dollar up to four or five hundred.

The funeral customs of China, vary in the different districts. In Fo-Kien, the body is placed in a coffin soon after death, a fan is placed in the hand, a piece of silver in the mouth and a hole is sometimes made in the roof for the spirit to effect its exit. The tombs are on the hill sides, where lucky spots are chosen by geomancers. Paper images of clothes, horses, and other luxuries are cast into the grave and a sacrifice of cooked provisions is offered on the day of the funeral. Every year, in the month of April the whole population visit the tombs and worship the manes of ancestors. Sometimes a poor family will keep the coffin for many months in their house till able to purchase a tomb, but the very poor are buried *en masse* within enclosed buildings. The rite of respectful burial is however so revered that burial clubs exist in all the large cities. The monumental tombs are small raised truncated cylinders.

In China, the tombs of the opulent are decorated with statues of men and horses. They run into excess in mourning for the death of near relations. Every part of the ceremonial is exactly regulated ; even the period, manner, and degree of the mourner's grief being duly prescribed. The corpse being dressed in warm clothes, and deposited in a substantial coffin, is kept for several days above ground, whilst the survivors express their measured grief by gesture, dishevelled hair, sackloth, and mournful silence. When a lucky spot has been selected for the grave, the corpse is consigned to the bosom of our universal mother, earth. Building a tomb in the form of a horse-shoe, they inscribe thereon the name of the deceased, erect a tablet to his memory in the hall of his ancestors, and repair annually to the grave, in order to prostrate themselves before the manes, and to offer victuals to the spirits. In the temples, divine honours are paid to their memory. To supply their full wants, in the other world, they burn gilt paper, paper chariots and houses, with every necessary article of furniture, which are supposed to be changed in the other world into real utensils, whilst the gilt paper, when burnt to ashes, becomes so much ready money. The greater the personage the more protracted is the mourning; the emperor mourns three years for his parent and every good subject follows his august example. Mandarins resign their offices during this period of affliction ; literati avoid entering for the examinations ; and common people abstain for some time from their labour. Chinese suttee prevailed to a considerable extent up to the middle of the 18th century. It does not appear, however, to have been regarded as a compulsory rite, but was generally the widow's own choice to show her extreme fidelity, or to escape the hardships of widowhood, or in the case of dutiful sons, to save the life of a parent. Fire was never used, but opium, poison or starvation were the means of suicide employed. Yiun Chang was the first emperor who discountenanced those practices, which his immediate predecessors had encouraged ; and he forbade honorary tablets to be erected to self-immolating victims. In 1792 a memorial was presented to the emperor praying for the dedication of a tablet to a most dutiful son, who had cut out his liver in order to cure his mother's sickness. The imperial Board of Rites, after mature deliberation, respectfully observed that the practice of cutting out the liver is that of the ignorant, showing a contempt for their lives, and after all, but foolish devotion ; and a decree was issued discountenancing the custom.

The Chinese, like christians and mahomedans, plant trees in their cemetries and around the tombs. The cypress is a favourite with all these religionists and in northern Europe the yew is much planted.

The Japanese have a great respect for the dead. They place the remains inside a kind of square tube, and in a sitting posture. To obtain this position they are said to use the Dosio powder which, placed within the mouth of the corpse, is said to have the effect of relaxing all the muscles. The hollow square is carried in a chair or norimon by four men into the yard of the Terā, escorted by a few women dressed up in bright colours, wearing a veil of white crape on the head. They are here met by the Ochaushan and a quantity of minor canons who chaunt to the sounds of the tom tom, the whole company awhile moving with the body, around the temple, into which they at length rush with a great noise. Prayers are then read over the body, and it is removed to be burned. If the deceased have been a person of rank, the ashes are deposited in an urn and buried within the sacred precincts of the Tera. In the procession, there is very little affectation of sorrow ; they seem to regard it as a joyful occasion, and the whole ends with a feast at the house of the deceased.

BUSTI, Hind, a village, a town, from basna, to inhabit, to build.

BUSTI KHEIL, an Afghan tribe dwelling near the Afredi. See Bussi Kheil.

BUSTRINA, Sans. Andropogon nardus.

BUSUD, Arab. Coral : properly, Bassad.

BUT, a manner of pronouncing and writing the name of Budd'ha : also the name of the Bhot or Bot race. See Bhot, Buddha.

BUT, Pers, an idol. In the Hindi and several Indian tongues, Bu or But is a spirit, generally an evil spirit.

BUT, also BUR, Beng. ; Indian fig, or Banyan tree, Ficus Indica.

BUT, Beng. Hind. Cicer arietinum.

BUTA, Hind. Properly, Bhutta, head of the Indian Corn, the Zea mays.

BUTAI-MISWAK, Hind. Astragalus multiceps.

BUTAN, is also written Bhotan, Bhutan and Botan. The capital of it is Tassisudon. The country is broken up with valleys and glens with overlooking mountains covered with snow in June and July. The people are styled Lhopa, they are agricultural and industrious, employing artificial irrigation on their patches of soil in the valleys. The Lhopa are tall, many being more than 6 feet high, and fairer t[illegible] the people of the south of Europe black ; eye small, black, with pointed corners, as if artificially stretched. Eyebrow slightly shaded. Eyelashes scarce ; below the eyes, the face is broadest, and rather flat, but narrow from the cheekbones to the chin ; this character of the countenance being more developed in the characteristic Chinese further east, to whose features this is the first approach. The Lhopa is a paper maker, distiller. Lhopan, in dialect, differs from the true Tibetan, in being more Hindu. Notwithstanding this, the real ethnological differences between the Lhopa and the true Tibetans are small. The language is the same from the frontier of Kafiristan to that of Asam. The religion is the same from Asam to Bultistan.—*Latham's Ethnology.* See Bhot. Bhutan.

BUTANA, HIND. Pisum sativum.

Common Pea	ENG.	Puttanee	TAM.

The native country pea is sown after the rains in drills, and varies in price according to the quality ; when green they are tolerable as a vegetable, but are best in soup. Procurable in December and January.—*Riddell.*

BUTANI, a clan of the Baluch Maghazzi tribe, which has been located in Kachi for a long time. The Maghazzi are subdivided into four principal families or clans, of which the Butani of Jell are the most illustrious and give the chief or sirdar, to the whole. They boast of being able to muster 2,000 fighting men, and between them and the Rind a blood feud long existed. The Maghazzi and Rind are alike addicted to the use of ardent spirits, opium and bhang. See Kelat, p. 493. Jell.

BUTANI, an Afghan tribe dwelling in the Dehra Ismail Khan district. They were a robber tribe until they became British subjects.

BUTAQUILA STROPHIATA, Hodgs. syn. of Aquila pennata.—*Gmel.*

BUTASHA, HIND. Sugar cakes.

BUTAYAT, BURM. Ægyceras fragrans, Kon.

BUTCH ? Amomum zerumbet.

BUTCHER ISLAND, 3¾ miles from the shore in Bombay harbour. Its Hindu name is Depa-devi, or the Island of the gods, Holy Island : it is low, less than a mile from Elephanta, in the direction of Salsette.

BUTEA FRONDOSA, *Roxb. ; W. & A.*

Erythrinum monosperma, *Lam.*

Pulasa	BENG.	Pulasi	MALEAL
Pulash	,,	Chuchra	PANJ.
Kinaka	,,	Dhak	SANS.
Pulsa		Palasa	,,
Pouk-pin	BURM.	Kinonka	SANS.
Pouk	,,	Kinsuka	,,
Pouk-away	,,	Calu-keale	SINGH.
Mootr mara	CAN.	Kæla	
Thorus mara	,,	Porasa maram	TAM.
Pulas Tree	ENG.	Moduga chettu	TEL.
Dhak kino tree	,,	Kimsukamu	
Bastard Teak	,,	Palasamu	,,
Parasa	HIND.	Tella moduga	TEL.
[illegible]	,,	Togaru moduga	,,
[illegible]	,,	Polaso	URIA.
Palas	MAHR.		

Its seed.

Porasum seed	ENG.	Porasam verre	TAM.
Palasha	SANS.	Moduga vittulu	TEL.

Its flowers.

Pulas-papare ka phul	DUK.	Pallas	MAHR.
Tesu	,,	Palasha	SANS.
Kisu	,,	Porasam-pu	TAM.
Porasum flowers	ENG.	Moduga-puvu	TEL.

This small tree occurs in most parts of India and produces large deep orange flowers in great clusters. A beautiful red juice issues from wounds and fissures in the bark, which hardens into a ruby coloured, brittle, astringent gum, called Butea Kino, which has been deemed valuable in chronic diarrhœa. Its large bunches of orange flowers attract attention, and Burman books describe the Himalaya forest as shining with the flowers of the Butea, like a flame of fire. An infusion of the flowers of this and also of B. superba, dye cotton, previously prepared with alum, a bright yellow, which may be changed by an alkali into deep reddish orange. The lac insect is frequently found on the smaller branches of the tree. It is this tree that was growing so abundantly on the battle plain which Clive occupied, against Suraj-ud-Dowlah, and from which it has been known as the battle of Plassey. The wood is not much used, but the bark and root afford a strong rope.—*Roxb. iii.* 224. *Ainslie, p.* 108. *O'Shaughnessy, p.* 296 *Honigberger, Voigt, Powell,* 265 ; 570 *Birdwood, Mr. Mendis, Dr. Gibson, Captain Macdonald, Royle, Ill. Hind, Bot. p.* 195, *McLelland, Mason, Hook. Him. Journ., p.* 52, *Proc. R. As. Soc., May* 1838. *Mr. Rohde M.SS.*

BUTEA PARVIFLORA. A scandent shrub, flowers small and white.

BUTEA SUPERBA, *Roxb. ; W. & A.*

Tige moduga	TEL.	Baranki Chettu	TEL.
Tivva moduga	,,		

An immense creeper with flowers resembling those of the Butea frondosa. It grows on the mountains of Coromandel in the Circars, the Kheree jungle and in the Dehra-dhoon and is not uncommon in the provinces of Tavoy and Mergui. It yields the same kind of gum as Butea frondosa.—*Eng. Cyc. p.* 703. *Voigt.*

BUTEES or BATIS, is sold in the Lahore bazar and is also called Atees ; all seem to be the Aconitum heterophyllum.—*Honigb. p.* 241.

BUTEONINÆ, a sub-family of birds, of the order Raptores or birds of prey. They are the buzzards, and the sub-family comprises one species of Archibuteo hemiptilopus of Tibet and the Himalaya ; Buteo pygmæus of Tenasserim ; B. rufinus of India and N. Africa, and B. vulgaris, the 'Common Buzzard,' of Europe, N. Africa, Asia Minor, higher mountains of India, common in the W. Himalaya, rare in the Nilgiris and replaced on the plains by B. canesbens. Rare, and to the northward and far west only, in America: mostly migratory in Scandinavia. B. Bacha, Franklin and B. melanotis, Jerd. are syns. of Spilornis cheela, Daud.

BUTHUS AFER, Linn. The great black scorpion of Ceylon, is as large as a little crayfish, its sting occasions a little inflammation.

BUTI, Hind, properly B'huta, a vegetable: many words are compounded from it, as

Buti ka mockka, Hind Boletus ignarius.
Awani buti, Hind. Ballota limbata.
Baggi buti, Hind. Stachys parviflora.
Dandi buti, Hind. Cleome ruta.
Farid buti, Hind. Farsetia Edgeworthii.
Gandi buti, Hind. Glinus lotoides.
Kauri buti, Hind. Trichodesma Indica, also Solanum gracilipes also Ajuga bracteata.
Khare buti, Hind. Oreoseris lanuginosa.
Mundi buti, Hind. Sphæranthus hirtus.
Pili buti, Hind. Abutilon Indicum.
Pipat buti, Hind. Heliotropium ramosissimum.
Popat buti, Heliotropium Europæum.
Resham buti, Hind. Berthelotia lanceolata.
San buti, Hind. Cassia obovata.
Tappal buti, Hind. Crozophora tinctoria.
Wadi buti, Hind. Ajuga bracteata.

BUT-KALE. Beng. Cicer arietinum.

BUTKUS. Mae. Elæodendron Roxburghii. *Linn.*

BUT MOOGRA, Beng. Duk. Jasminum sambac. *Ait.*

BUTHNI SAJJI, Hind. of Sirsa, 2nd quality of Sajji. See Barilla.

BUTLOE, Hind. The field-pea.

BUTOCERA RUBUS. Curuminga, Singh. A beetle which penetrates the trunk of the cocoanut tree near the ground and there deposits its eggs, and its grubs, when hatched, eat their way upwards through the centre of the tree, to the top, where they pierce the young leaf buds and do incredible damage. —*Tennent's Ceylon.*

BUTONICA. B. sylvestris alba; *Rumph*, syn. of Barringtonia racemosa, *Roxb.* B. speciosa, *Lam.* syn. of B. speciosa, *Linn.*

BUT PESH, Hind. Aplotaxis gossypina.

BUTSALLA-KURA, Tel. Basella alba.

BUT SHUR, Hind. Ephedra Gerardiana.

BUTSNAL-BISH, Beng. Aconitum ferox.

BUTTANA, Hind. Peas. Pisum sativum.

BUTTER, Eng. Germ.

Smor	Dan.	Manik sapi; mantega	Malay.
Boter	Dut.	Maslo	Pol.
Beuerre	Fr.	Manteiga	Port.
Maska also Mackan.	Guz.	Masslo korowe	Rus.
Maska also Mackan.	Hind.	Manteca	Sp.
Burro	It.	Venne	Tam.
Butiro	,,	Venna	Tel.
Butyrum	Lat.		

Butter is one of the components of milk, the others being curd or caseine, a species of sugar, and certain salts. The lighter matters suspended in milk, when it is allowed to stand, separate in the form of cream, which can be further separated by churning into butter and butter milk. The yield of cream is increased by dropping into the milk a small piece of zinc. Butter is naturally of a yellow colour, which is deepened when the cows feed in rich pastures, but it is often artificially heightened by arnotto. "Karra" or fresh butter, is seldom used by the natives of India: it is generally kept till it turns rancid, and then clarified by repeated boiling. This is called "roughun," in Persia and "ghee" in India. The ordinary drink of the Tartars is "kumys," a spirit made of mare's milk. They pour the milk into a large leathern vessel, and when they have got a considerable quantity, beat it till it begins to ferment like new wine. When it becomes quite sour, they beat it again violently and then draw off the buttery part. The fermented whey makes a brisk sort of liquor, with an agreeable almond flavour, very intoxicating to those not much accustomed to it. The Tartars also make, from goat's milk, a kind of butter, which they boil and keep for winter use in goat's skins, and though they put no salt in it, it never spoils. After they have taken off the butter, they boil the curd again to make cheese, which they dry in the sun, and which is as hard as iron; these cheeses they put into sacks for the winter store, and when the supply of milk becomes scanty, they put this hard sour curd into a leathern vessel, pour hot water upon it, and beat it till it liquifies; and with this acid drink they have to content themselves during the time of year so severely felt by pastoral nations. The Tartars live chiefly on their flocks, and the produce of the chase. —*Huc's Christianity, Vol. I. p. 209. Toml. McCull.*

BUTTERS, VEGETABLE, the name given to the concrete oil of certain vegetables, from its resemblance to the butter obtained from the milk of animals, and from being employed for similar purposes. The term is also occasionally, but improperly, applied to some vegetable products which are entirely of a waxy nature, such as the wax of Myrica cerifera. The name is likewise bestowed in Siberia on certain Algæ, species of the genus Nostoe, such as N. pruniforme. The most important Vegetable Butters are produced by the Bassia butyracea and other species of Bassia and certain palms, such as the Cocos butyracea and the Elais guineensis; the former of which is of great utility to the inhabitants of Brazil where it grows naturally, and to the negroes of St. Domingo, where it is cultivated: while the latter is very serviceable to the natives of Guinea. The generally known solid oils or vegetable butters are as follows:

Butter of cacao, from Theobroma cacao; 1,000 parts of the seed yield 300 parts of a concrete oil or butter, of a most agreeable flavour.

Butter of Cinnamon, from Cinnamomum verum or zeylanicum. By strong decoction, the fruit yields a concrete oil, called Cinnamon wax, used for candles, and which exhales while burning a most delicious odour.

Butter of Nutmeg from Myristica moschata; this is brought from the Moluccas, of two kinds, and is obtained by bruising the nutmegs into a paste which is compressed in bags between hot metallic plates.

Butter of Cocoanut from the Cocos nucifera. It is prepared by rasping the pulp of fresh ripe cocoa-nut, adding a little hot water, squeezing and boiling the milky juice until the water has evaporated, and filtering through paper. This oil separates into two portions, the one fluid and limpid; the other a solid concrete substance of a pure white color, which in the shade remains unliquidated at all temperatures. It may possibly be found that the process of manufacture affects the out-turn of the solid product.

Butter of Palm oil from Elais guineensis, a native of Africa and America. It is much esteemed in Europe for ungents and has been lately recommended for culinary purposes.

A new export from the Western Coast of Africa, has been large quantities of solid palm oil, of the consistence of hard butter. Shea Butter is from Bassia Parkii, or Pentadesmis butyracea.

Galam Butter from Bassia butyracea, Fulwa or Phulwara, Hind, of Nepal and Almora in Northern India.

Bassia latifolia oil separates into two portions, one on the surface, fluid, and of a pistacio green color; the other of a brownish green, and almost solid.

Bassia longifolia, the Illoopoo Oil. Of three samples, one separated into two portions; the upper, fluid, of a pale oil green, in color; and the lower, greenish white and of the consistence of ghee. Another specimen of the oil of this Bassia separated into three portions, the uppermost a golden yellow and fluid, the middle yellowish white, solid, and floating in the upper, and the lowest solid, and brown in color. A third sample was of the consistence of ordinary ghee and was sent as a material fit for the lubrication of railway carriages; a beautiful specimen, almost solid, from Tanjore, was of a light golden yellow color.

Chinese Vegetable Butter from Stillingia sebifera is much in use in China; the number of these trees in the province of Chekiang is immense.

Indian Vegetable Butter, Piney Butter, or Doopada solid oil, is from the Vateria indica; (Piney Marum, Tamil,) of the Western Coast and Canara. It is white or yellowish white, of the consistence of hard salt butter, and in the shade remains always solid. It can be procured in quantities in southern India. It is used for lamps principally, but is very suitable for soaps and candles. It is prepared by cleaning the seeds; then roasting and grinding them into a mass. To 5 seers of seed, add 12 seers of water, and boil until the oil rises to the surface. Remove the oil, stir the contents of the vessel, and allow it to stand until the following day, when more oil will be observed on the surface, which may be collected and the process repeated.

African Butter is from Pentadesmis butyracea in Sierra Leone.

Japan Wax is from Rhus succedaneum.

Almond Butter.

Cocum Butter from Garcinia purpurea?, one of the two species of Garcinia, G. pictoria and G. purpurea, the seeds of which produce solid oil, the former the Gamboge butter and the latter the Cocum butter:

Gamboge butter Mukke Tylum, Tam. Arasana Ghoorghy yennai, Can. is a product of the Garcinia pictoria, *Rox.* which grows abundantly in Mysore and the Western jungles.

Gamboge butters are solid and of a deep leek green color. The oil is procured by pounding the seed in a stone mortar and boiling the mass until the Butter or oil rise to the surface: 2½ measures of seed yield one seer of butter, and it is sold at the rate of Annas 1-4 per seer of Rupees 24, in the Nuggur division of Mysore, and is used as a lamp oil and as ghee.

Sterculia fœtida oil, (Vern: Tam. Coodiray yennai or Coodira pusjun yennai) is thick at all seasons of the year, and is obtainable probably in large quantities in the Nulla Mulla and Yella Mulla forests.

Butter of Laurel—Laurus nobilis.

Solid oils are obtained from the Dipterocarpi, in the Indian Archipelago.

Solid oil of the Horse-eyes and Cacoons of Jamaica, Fevillea scandens, is white and hard.

Kawan Solid Oil is procured from a species of Bassia from Singapore or Java.

Mijo or Japan Butter, from Dolichos soja.

Solid Oil from Myristica (Virola) sebifera, of British Guiana.

Solid Oil from the Demerara butter tree Saouari, Pekea tuberculosa.

Vegetable Wax from Shanghae.

Myrtle Wax from Cape of Good Hope.

Solid Oil of Bombay, from Salvadora persica or Vernonia anthelmintica.

Carap or Carab Vegetable Butter, from Carapa guianensis, a large tree in Trinidad, and British Guiana.

Butter of the Great Macaw Tree, from Acrocomia fusiformis.

Broonga Malagum Oil, from Masulipatam, separates into three portions, the uppermost, fluid, resembling brown sherry, the middle, o the consistence of ghee, and brownish yellow, and the lowest almost solid and of a hair brown color.

Mooragana or Mooroogana Butter or solid oil of Canara, is used for medicinal purposes and as an ointment for the wounds of cattle, injured by tigers. It is said to be produced from a forest tree growing in the Canara Jungles. The specimens are dark brown and quite solid. It is the most solid of the solid oils.

Odul or Adul oil of Travancore is separated into two portions; the upper, fluid, of the colour of golden sherry; the lower, reddish white, of the consistence of ordinary hard salt butter.

Shacotty oil of Canara is used for cutaneous eruptions. This oil in the Museum separates into two portions; the upper, yellowish and fluid, and the lower brownish red and of the consistence of hard ghee.

Hibavania oil under this Canarese name, there was exhibited at the Madras Exhibition of 1857, a solid oil from the Sampajoy district by Pedro Probhoo of a clove brown colour, a small phial was priced at Rupees 4½.

Camujay tree oil: a small bottle, priced Rupees 2½ from the same district, by the same exhibitor, was a dark gelatinous mass, of the consistence of blanc-mange.

Oil of Hydnocarpus inebrians, the thortay oil of Canara, used for sores, is a very valuable vegetable solid oil of the consistence of ordinary hard salt butter.

Terminalia bellerica, Vern. Tam. Thaneeka or Tannekae yennay. The oil separates into two portions—the one fluid, of a pale oil green color, and the other white, floccular, and of the consistence of ghee.—*Balfour Madras Museum Report, Simmonds, p.* 510-514.

BUTTER, Dr. D., a Bengal medical officer wrote on the Topography and statistics of Oudh Calcutta, 1839, I vol. 8vo. On public health in India—Planting of trees along the Himalayas. Bl. Med. and Phys. Trans. Calcutta Government Gazette, and As. Jl. 1829, vol XXVII. On the preparation of opium for the Chinese market in the Behar and Benares agencies.—*Bl. As. Trans.* 1836, *Vol. V.* 165.

BUTTERFLIES are very numerous in the *South and East of Asia, and many of them very* beautiful. They are classed by entomologists, in the insect order Lepidoptera. The largest and most gaudy of the Ceylon Lepidoptera, is the great black and yellow butterfly the Ornithoptera darsius, of Gray. Its upper wings, which often measure six inches across, are of a deep velvet black. Its caterpillar feeds on the Aristolochia and betel leaf, but the butterfly on the heliotrope. Papilio polymnestor, the black and blue butterfly, feeds on the ruddy flowers of the hibiscus or the dark green foliage of the citrus. Papilio Hector has crimson spots on the black velvet of the inferior wings. When examining the Lachen valley, Dr. Hooker found the caterpillar of the swallow-tail butterfly (Papilio machaon), common, feeding on umbelliferous plants, as in England; and a Sphynx (like S. euphorbiæ) was devouring the euphorbias; the English Cynthia cardui (painted-lady butterfly) was common, as were "sulphurs," "marbles," Pontia (whites,) "blues," and Thecla, of British aspect but foreign species. Amongst these, tropical forms were rare, except one fine black swallow-tail.—*Hooker, Vol. II. p.* 65. *Tennent's Ceylon.* See Lepidoptera.

BUTTER MILK.

Dhai...	HIND.	Salla, also Majiga...	TEL.
Moroo............	TAM.		

Buttermilk forms an ingredient in many native recipes, it is used by chucklers for softening leather —*Rohde, M.SS.*

BUTTER NUTS. See Caryocar.

BUTTER OF CACAO. See Chocolate.

BUTTER OF NUTMEGS. See Butter, vegetable; Myristica moschata.

BUTTER or TALLOW-TREE. See Bassia butyraceæ; Clusiaceæ.

BUTTERWORTH, Major General, C. B. an infantry officer of the Madras army. He served under Sir Thomas Pritzler, K. C. B. at the siege and storm of Copaldroog: served with the army in Burmah in 1825-6, and besides minor affairs was present at the capture of Melawn. He compiled the Madras Road book; served in 1834, as Assistant Quartermaster General, in the field force sent against Coorg, under the orders of Sir David Foulis, K. C. B. and was three times wounded while leading to the several stockades. He served under Brig. General Taylor, C. B. in Gumsur against the Khonds, was appointed Quartermaster General of the Madras Army and afterwards in 1843 Governor of the Straits Settlements. Born 10th January 1801. Obiit, 4th November 1856.

BUTTI, GUZ. HIND. Candles.

BUTTONS. ENG.

Boutons........	FR.	Kanching...... ...	MALAY.
Knopfe...	GER.	Botoens	PORT.
Buttoun...	GUZ.	Pogowizu...	RUS.
Gundi.............. ..	HIND.	Butones.....	SP.
Bottoni	IT.	*Battan*	TAM.
Bahru......	MALAY.	*Buttasulu*.....	TEL.

Buttons are made from metal, shell, wool, cotton thread, horn, bone, palm seeds, fruits, woods, glass, wire, mother of pearl: jet, precious stones; agates, linen, velvet; satin, florentine, and embroidered stuff of all kinds. Birmingham is the great seat of this manufacture. Those of metal are often gilt, and five grains of gold, and sometimes 2½ grains, are made to cover 144 one inch buttons: so great is the divisibility of that precious metal.—*Toml. McCulloch*.

BUTTOO-PASSALEI KIRAI, Tam. Basella cordifolia, *Lam*. B. alba *Linn*.

BUTUM, Arab. Pistacia terebinthus. Turpentine.

BUTWAS, Hind. Glycine.

BUTYRUM, Lat. Butter.

BUVUSHIRUM, Sans. Phyllanthus niruri.—*Linn*.

BUWAH-LUVUNG, Bali. Cloves.

BU-WAH-PA, Bali. Nutmegs.

BUWAYA. See Crocodilidæ.

BUXUS, a genus of plants whose species afford the valuable Boxwood. Of the two European species B. sempervirens and B. Balearica, the former is the common Box, and forms a large evergreen bush or small tree, common all over the south of Europe from Spain to Constantinople, and reaching even so far as the north of Persia into the N. W. Himalaya. The Himalaya Box-wood is known as Pabur Lakri. Mr. Dunlop saw a jungle of this plant at Sem Kharrak, beyond Ramnee, the trees as tall as English firs and some of them as thick round as a man's body. The chief supply of Box-wood for Europe is derived from the southern parts of Europe, and from Asia Minor. A distinction is drawn between "Turkey" and "European" Box-wood. The latter is more curly, softer, and paler than the former. Dr. Royle has called attention to Buxus emarginatus, a native of the Himalayas. Several Asiatic woods have been discovered with much of the appearance of the common boxwood. The Karens furnished Dr. Mason with specimens of a wood not light, but scarcely to be distinguished from the box-wood of Europe; he had never seen the tree, though he named it a Murraya. Dr. Wallich found Nauclea cordifolia on the banks of the Irrawaddy, with "wood coloured like that of the box tree but much lighter, and at the same time very closegrained." One Tavoy tree, he says has a strong tough wood, in grain like box. —*Eng. Cyc. p*. 704. *Dr. Mason, Royle's Illust. Him. Bot. p*. 327. See Engraving.

BUXUS CHINENSIS, *Lam*. The China box tree.—*Voigt*.

BUXUS EMARGINATUS, *Wallich*. This Box-wood tree was introduced into Britain from *the Himalaya and the wood appears as good* and compact as that of the box-wood in use in Europe. But, on actual comparison, is found to be softer than the common kinds, though like them in other respects. Wood cuts have been engraved upon this wood which has the advantage of being of considerable size and thickness.—*Eng. Cyc. Royle, Ill. Him. Bot. p*. 327.

BUXUS SEMPERVIRENS.—*Linn*.

Chikni of Jhelum	Shanda, Leghune of Tr. Indus.
Samshad, Shumaj; Safed dhawi of Beas.	Papri, Papar of Sutlej and Ravi.
Paprang of „	

This grows in northern Persia, is abundant near Manikaran in the N. W. Himalaya, Dr. Stewart says from being lopped, it is generally seen as a shrub, but at times grows to a tree of some girth, locally only, on the Sutlej and Beas, upon the Rattan Pir, near Punch, above Rawul Pindi, in the Salt Range, and Trans-Indus. Mr. Watson, Madhopur Workshops, states that the wood is not equal to that of olive (see Olea), but he thinks the specimen must have been an inferior one or badly seasoned. It is carried to Umritsur and other places in the plains to be made into combs, but the supply is probably getting exhausted.

The leaves of the box are poisonous to the camel. Dr. Cleghorn says this is found in the Sutlej valley between Rampur and Sungnam at an elevation of 6,000 feet. Wood hard, heavy, and nearly as compact as the box-woods of Europe. Used in the Schools of Art throughout India for wood engraving and used for plugs for rifle bullets.—*Cleghorn, Punjab Report, p* 63. *Powell's Hand-Book. Dr. J. L. Stuart*, M. D.

BUYO of the Philippines is the betel, the sirih of the Malays and Piper betel of botanists. —*Crawfurd Dictionary, page* 78.

BUYO, in Tagala, Sweet potatoes.

BUYUR, Beng. Jujube, Zizyphus jujuba.

BUZ, Pers. a kind of antelope or long-horned mountain-goat, called Tish by the Arabs.

BUZA, Hind. Hordeum hexastichum.

BUZGUND, Hind. Gulpista. Pistachio nut.

BUZLI, Hind. Oreoseris lanuginosa.

BUZOTEE. The Sepah and Buzotee are small, but very brave Afghan tribes, the Buzotee numbering 500, and the Sepah 300 fighting-men. They live in tolerably close connexion with their more powerful neighbours, the Afridi, and manage to hold their own. After the British acquisition of the Punjab they acted up to their engagements in regard to the Khyber Pass and generally behaved well towards the British.

BUZAR-UL-BHANG also Sikran? Urmanikon. Arab. Henbane seed.

BWÆ, Burm. Careya arborea, *Ro*[illegible]

BWAI-JIN, Burm. Bauhinia angui[illegible] and B. racemosa, *L*.

BUZRAK-OTUNA, ? Arab, or Bu[illegible]ona, ? Arab. Plantago ispaghula. Spogel Seed.

BUZR UL-BUNJ-AHMAR. Arab. Seeds of Cleome viscosa.

BUZR-UL-SHIBET, [illegible] Seed.

BUZRUK, Arab. [illegible]

BYAH, a river nea[illegible] poor.

BYAKED, also BYAKOOR, Beng. Indian nightshade; Solanum Indicum.

BYANSE, a pass in Gurhwal, in which are nine villages and 184 houses, the people who occupy four of the Gurhwal passes are Bhot, those in the Darma pass are said to be Mongols left by Timur. See Gurhwal.

BYAT, a powerful tribe which came originally from Tartary with Chenghiz Khan. They were long settled in Asia Minor; and a number of them fought in the army of Bajazet against Timur. After his defeat, many of the families of this tribe were sent by the conqueror to the province of Diarbekir; but, having quarrelled with its ruler, they went to the territories of Baghdad, where they lived till the time of Shah Tamasp, who brought them into Persia. One half was settled at Souj-Bulàgh, a district of Teheran; and the remainder at Ashraff, in Mazenderan. They remained on these lands till Abbas II. transplanted a number of them to Khorassan. The Byat are still more numerous in Turkey than in Persia, but in the latter country, in the reign of the Suffavean monarchs, they were registered at forty thousand families. —*Malcolm's History of Persia, Vol. II, p.* 218, 219.

BYBLUS, the modern Djebail or Gebyle. Byblus was a considerable seaport town under the kings of Antioch. Djebail is enclosed by a wall about a mile and a half in circumference, of moderate height, with square towers at intervals; Djebail is one day's journey from Tripoli.—*Robinsons's Travels, Vol. II. p.* 52.

BYCE, a rajput race who claim to be one of the 36 royal tribes. They give their name to the Bycewara district in the Doab.

BYEW. Burm. Dillenia.

BYGOOL. See Canal.

BY-IT-ZIN. Burm. Antidesma paniculata.

BYLTÆ of Ptolemy, are the Balti people now inhabiting little Thibet. They have, on the east, the Khor country which is inhabited by a people supposed to be the Chaurandi Scythæ of Ptolemy.—*Cunningham.*

BYNEE ARRACK. Arrack from Caryota urens.

BYNGUN, Duk. Brinjal.

BYNSA, one of the seven branches of the Ba[illegible]gar race.

[illegible]AGI, Anglo-Hind. For Viragi (vi-pri-[illegible]aga, passion) hindu vaishnava ascetics; [illegible]wers of Ramanund and Kabir form t[illegible] principal sub-divisions. See Dadu; Kabir; Ramanund; Vairagi.

BYRD, amongst the Rajput races, the blessing of a bard to a ruler. Whenever a Suktawut chief[illegible] court of his sovereign, or takes h[illegible]g his brother chiefs, the bards sti[illegible]n with the dying words of Ballo Doonah datar, Chaogoonah joojar, Khorasan, Mooltan-ka-aggul, meaning double gifts, "fourfold sacrifice" that is to say with increase of their prince's favour the sacrifice of their lives would progress; and which, for the sake of euphony probably, preceded the byrd won by the founder,—"*the barrier to Khorasan and Mooltan.*" The byrd of the Chondawut is "Dos sehes Mewar ka bur kewar" the portal of the ten thousand [towns] of Mewar." It is related that Sukta, jealous of so sweeping a byrd, complained that nothing was left for him; when the master bard replied, he was "Kewar-ka-Aggul," the bar which secures the door, —*Kewar Tod's Rajasthan, Vol. I. p.* 358.

BYSOA, a river near Ghazepur cantonment.

BYSSUS, a long, delicate, lustrous, and silky fasciculus of filaments, by which some of the conchiferous mollusks, for example, the Mytilacea, mussels, and Malleacea, hammer oysters, are moored to rocks, &c. is an assemblage of muscular fibres dried up in one part of their extent, but still contractile and in a living state at their origin. The tendinous foot of Byssoarca and Tridacna seems to be a step towards the organisation of a true byssus. The byssus of the great Pinna of the Mediterranean is in a fleshy sac or sheath at the base of the foot, which is attached towards the middle of the abdominal mass of the animal. In Italy it is manufactured into various articles; and there are few museums without a glove or a stocking woven out of this substance. In the great Exhibition of 1851 a large number of articles were exhibited manufactured from this substance, as well as specimens of the silk for making up.—*Eng. Cyc. p.* 707.

BYTTNERIA, one species furnishes a wood of great elasticity and strength, the deflection with 1,351 lbs., being 3½ inches, the specimen was drawn through the supports, having only a bearing on each end of 1 inch; an invaluable wood for gun carriages —*Major Campbell.*

BYTTNERIA HERBACEA.

Aree-keeray, Tam.

A very common little herbaceous plant with red and yellow flowers, used as greens.

BYTURNEE, river rises near Lohardugga, in Lat. 23° 29: lon. 84° 55′ N. runs S. S. W.; S. E.; E., into the Bay of Bengal, by Dhumrah river. Length, 345m. It receives the Sunk, 95m. About 26,000 sq. m. are drained by the Brahminy and Byturnee. It is sacred in hindoo mythology, more especially at its source. It runs near Pudumpoor, in Cuttack.

BYZANTIUM of Ptolemy is supposed to be the Balabhi of Guzerat. See India, pp. 313, 314.

C. This English letter has sometimes an open, sometimes a hard, and sometimes a soft or sibilant sound, as in the English words commenced, city. There is no letter in Arabic, Persian, Urdu, Sanskrit, Hindi, Marathi, Guzarathi, Bengali, Urya, Telugu, Karnata, Tamul or Malayalam, with two such similar powers, and it is on this account that Cashmere is so often written Kashmir; Cabool, Kabool; Sanscrit, Sanskrit; Carnatic, Karnatik; Cutch, Kutch, &c., &c. The sounds produced by the English compounds of ch, as in child, have single letters with corresponding powers in all those tongues, and, in all but Tamil, ch'h also has equivalents modified in compound letters, but there is no letter which has two sounds of ch, as in character, child. See ch.

CAAT, or KAAT, or KAT, or CAATU in the Dravidian tongues means wild, uncultivated or crude.

CAAT-AMUNAK. TAM. Jatropha curcas.

CAAT-AMUNAK YENNAI. TAM. Jatropha curcas oil.

CAAT CARNAU-KALUNG. TAM. Dracontium polyphyllum.

CAAT ELOOPEI. See Eloopei Poo.

CAATEYALOO-MICHE MARUM. TAM. Atalantia monophylla.

CAAT KOORUNDOO. TAM. Trichilia spinosa.

CAAT-KUSTOORI. MAL. Abelmoschus moschatus.

CAAT MALLIKA VAYR. TAM. Jasminum root.

CAAT MOORANGY VAYR. TAM. Hedysarum sennoides.

CAAT-SIRAGUM. TAM. Vernonia anthelmintica; Fleabane.

CAAT SIRAGUM YENNAI. TAM. Oil of Vernonia anthelmintica.

CABAB-CHINI. GUZ. HIND. Cubebs.

CABBAGE. BRASSICA OLERACEA.—This vegetable is raised from seeds, and cuttings; requires a free open rich soil and plenty of water; the surface of the ground round the plants should be repeatedly hoed to keep it open and free of weeds. The seeds should be sown some time before the commencement of the N. E. Monsoon at Madras, in a well prepared bed, not too rich.—*Jaffrey.*

CABBAGE SEED OIL. See Oil.

CABAN. In the Philippine islands, a measure of capacity.

CABANIS. See Mirafra.

CABINET, little cabinets of silver are worn by all the Jungum sect of hindus, each containing the conical emblem of Siva, the lingum of the hindus, the phallus of the Greeks, and the priapus of the Romans. The tabernacle of Moloch, mentioned in Acts vii. 43, was doubtless a kind of cabinet, in which the object was enclosed; and the shrines of Diana were, most probably, of the same construction and for the same purpose. A medal, with a figure of Diana's shrine, shows pointed cones and a semi-lune. Bacchus brought his thyrsus from the East when he returned from his Indian expedition. It was said to have been surmounted by a fir cone or pine, but a recent writer in the "Edinburgh Review" thinks it was the date. This fruit, according to Pliny, was consecrated to the worship of almost every heathen divinity. The date palm is the scriptural emblem of all that is dignified, beautiful and good, and entered largely into the ornamentation of temples.—*Edinburgh Review, Milner's Seven Churches of Asia, p.* 130.

CABINET WORK. See Damascus.

CABLE. ENG.

Langar ki rassi. HIND. | Amar. TEL.
Tali-sawuh. MALAY.

In Southern Asia some cables for ships are made of coir, the requisite quantity being laid out at full length along the beach or other convenient spot: they are made up in strands, and twisted in a very simple machine; viz. a strong wooden frame, in a strong board, across which three or four pins are placed and turned like the screws of a carpenter's bench, by as many men; the further end of the cable is fixed to a large revolving pin, which is turned round in a similar manner. As the strands are twisted, the horse in which this is fixed is drawn nearer to the other. It is evident that cable strands thus laid are very unequally strained; the outer lines being tight while the inner ones are slack. By laying the strand and twisting it as each yarn leaves its separate reel, a strand is formed of which each yarn bears its due proportion of the strain. Huddart's patent rope was laid on this principle: the necessary apparatus for winding off the yarn might be readily made. Cables for the Shakespear bridges are formed of the country rattan. In the Red Sea those formed of the coating of the branches of the date tree are used; and the same material with a proportion of fibre of the Kaldera bush, the *Pandanus odoratissimus*, is used by fishermen in forming drag ropes for their nets at Oopada.—*Mr. Rhode, MSS.*

CABO NEGRO, Spanish, of the Phillipines, is obtained from the gomuti palm, Arenga saccharifera, and resembles black horse hair. **It is found between the trunk and branches, in a matted form, interspersed with black twigs. When separated from the latter, it is manufactured into a cheap and durable cordage chiefly used for cables and standing rigging. A single palm in its life-time yields two crops of this material, each amount-**

ing to about lbs. 9. The twigs are used as writing pens, and also as arrows. Under the hair-like material a soft substance is besides collected, used as oakum for caulkings, and as such exported to China.—*Walton's State*, p. 119. See Gomuto.

CABOOK. SINGH. Lateritious deposit, said to be the product of decomposed gneiss.

CABUL, the chief town of Affghanistan, where the chief Khan rules. The boundaries of Afghanistan have fluctuated with the vicissitudes of war from the middle of the tenth century. Rennell tells us (*Memoir*, pages 112 to 121) that Timur in his route from Cabul towards Hindoostan, according to Sherif-ud-din, went by way of Irjal, Shenuzan, Nughz, Banou (or Bunnoo), and thence to the Indus, at the very place where Jelal-ud-din, king of Kharazm, fought with Jengis Khan and so heroically swam the river after his defeat in 1221. Timur crossed an extensive desert in his way to Batnir. In his return from the banks of the Ganges, he proceeded to the north-west, along the foot of the Sewalik mountains, by Meliapur, Jallindhar, and Jummoo, to the Indus, which he crossed at the same place as before, and in the same manner; and returned to Samarcand by way of Bunnoo, or Banou, Nughz or Nagaz, Cabul, Bacalan, and Termed.

At the death of Timoor, Afghanistan comprehended the principalities of Cashmir, Lahore, Peshawur, Cabul, Balkh, Khulm, Kandahar, Multan, and Herat; those of Kelat and Beluchistan as well as Persian Khorassan, acknowledged her as suzerain. Sind also, though not having paid for five years the tribute agreed upon by Mir Fathah Khan, chief of the Talpooras, was nevertheless classed as amongst the number of her dependencies. Mr. Aitcheson tells us that at the beginning of the present century the Dooranee empire, extending from Herat to Cashmere, and from Balkh to Scinde, which had been built up by Ahmed Shah Abdallah, and remained undivided in the hands of his grandson Zeman Shah. Having incurred the enmity of the powerful Barukzai tribe, Zeman Shah was deposed and blinded by his brother Mahmood, who was supported by Futteh Khan and the Barukzai. He eventually died a pensioner of the British Government at Loodhiana. In 1803, Shah Mahmood was driven out by Sujah-ool-Mulk, the younger brother of Zeman Shah, and Shah Suja was still in possession of the undivided empire of Ahmed Shah at the time of Mr. Elphinstone's mission in 1808. This mission was sent for the purpose of concerting with Shah Suja the means of mutual defence against the threatened invasion of Affghanistan and India by the Persians in confederacy with the French. Mr. Elphinstone had scarcely left Cabool ere Shah Suja was driven out by Shah Mahmood with the aid of Futteh Khan. Wandering about for some years the sport of fortune, now a captive in Cashmere, now the prisoner of Runjeet Singh at Lahore, in September 1816 Shah Suja found an asylum in the British Territories at Loodhiana. In the meantime Futteh Khan Barukzai, who was the chief support of Shah Mahmood's power, having incurred the jealousy of that monarch, was blinded and slain. The death of Futteh Khan roused the vengeance of the Barukzai clan. Of the twenty brothers of Futteh Khan, one of the youngest, Dost Mahomed Khan, was foremost in avenging his murder. Shah Mahmood was driven from all his dominions, except Herat, the whole of Affghanistan was parcelled out among the Barukzai brothers, and in the confusion consequent on this revolution, Balkh was seized by the chief of Bokhara, the Derejat by Runjeet Singh, and the outlying province of Sind assumed independence. In the partition of Afghanistan, Ghuzni fell to the share of Dost Mahomed, but he soon established his supremacy at Cabool also, and thus became the most powerful of the Barukzai Sirdars. At the date of the invasion of the country by the British, which was undertaken in order to place Shah Suja on the throne, the kingdom consisted of four subdivisions, Cabul, the Huzara country, Candahar, and Herat. Taken in this extent, Afghanistan is bordered on the north by Bokhara, Kunduz, and Kaferistan; on the east by the British province of Peshawur and the Soliman range of mountains; on the south by Beloochistan; and on the west by Persia. Its greatest length from north to south is about six hundred miles; its breadth measures about the same distance. (*Townsend's Outram and Havelock*, p. 85.)

Shah Sujah, who had still a strong party in Cabool, had never lost hopes of recovering his kingdom, and the British undertook to restore him. This they accomplished. Cabul was occupied 5th August 1840, but on the 2nd November 1841 an insurrection and general rising drove out the British, and utterly destroyed their armies; it was however reoccupied by the British on the 16th September 1842, and on the 8th November the town was destroyed and the British evacuated the country.

The races occupying Affghanistan are distinguished by marked characteristics, moral as well as physical. General Ferrier tells us that the Affghans of Cabul consider themselves as Indian Affghans, whereas those of the Herat say they are Khorassani; one tribe repudiates another, and denies its Affghan origin, and there is not the least sympathy between them. According to Captain Raverty, the people who dwell about Cabul and Kandahar, Shorawak and Pishin are designated B'r-Pushtun or Upper Afghans; and those occupying the district of Roh, which is near India, are called L'r-Pukhtun or Lower Afghans. Persian is the official language of Afghanistan, but colloquially the Pushto is alike the common tongue of the uneducated people, of the families of the Sadozye kings, and of the dwellings of the Amir. There are however two divisions of the Afghans, termed Pushtun and Pukhtun, who speak Pushto and Pukhto respectively. The Pushto being the western dialect with affinity to Persian, and the Pukhto the eastern with many Sanscrit and Hindi words. The Pushto is spoken, with slight variation in orthography and pronunciation, from the valley of Pishin, south of Kandahar to Kafiristan on the north; and from the banks of the Helmund on the west, to the Attok, Sindhu or Indus river, on the east;—throughout the Sama or plain of the Yuzufzye,—the mountainous districts of Bajawar, Banjhkora, Suwatt and Buner to Astor, on the borders of Little Tibet,—a tract of country equal in extent to the entire Spanish peninsula. Also, throughout the British districts of the Derajat, Bann Tak, Kohat, Peshawar and the Samah or Plain of the Yuzufzye, with the exception of Dera Ghazi Khan, nine-tenths of the people speak the Afghan language. Since the invasions of Mahmud of Ghazni, in the twelfth century, there has been a constant influx into India of Afghans, as conquerors and settlers, and this has been so great from particular districts that some tribes have altogether disappeared from Afghanistan. In some localities in India, Afghan settlers have preserved the Pushto, almost in its purity, up to the present day, having from the outset married amongst themselves. In some parts of Bandalkand and in the territory of the Nawab of Rampur, whole towns and villages may be found in which the Afghan language is still almost exclusively spoken and is the medium of general communication. Captain Raverty considers that although, on numerous points, the Pushto bears a great similarity to the Semitic and Iranian languages, it is totally different in construction and idiom also from any of the Indu-Sanscrit dialects.

Military strength of the States of Afghanistan.

Nations.	Principalities and Khanats.	Cavalry of each State.	Total Cavalry of each Nation.	Infantry of each State.	Total Infantry of each Nation.	General Total.
Afghan.. ...	Herat	8,000	41,500	10,000	31,000	72,500
	Kandahar	12,000		6,000		
	Kabul	21,000		10,000		
	Lash-Jowaine ...	500		5,000		
Uzbek ...	Khulm	8,000	18,000	3,000	8,100	26,100
	Balkh	2,500		1,000		
	Siripool	2,000		2,000		
	Akkchu	200		...		
	Andkhoo	1,800		600		
	Shibbergan	2,000		500		
	Meimana	1,500		1,300		
Hazarah.....	Zeidnat	4,000	10,900	...	5,300	16,200
	Poosht-koosh ...	5,000		3,000		
	Yekenboling... ...	1,000		300		
	Deh-Zingey	400		1,200		
	Sir-Jingel	500		800		
Eimak	Firooz-kohi	3,750	4,950	6,400	16,800	21,750
	Kip-chak	...		400		
	Taymooni	1,200		10,000		
		75,350	75,350	61,200	61,200	136,550

Cabul is the Urva of the Vendidad. Urva means the land of plains. Bunsen says Cabul is from Kah, Pers. grass, and bul a mutilated form of Urva. *Bunsen's Egypt*, III, 483. *Townsend's Outram and Havelock*, p. 85. *Raverty's Pushtoo Grammar. Aitcheson's Treaties. Ferrier's Journies. Rennell's Memoirs. Vigne A visit to Cabul, Ghuzni and Afghan-*

istan, by G. T. Vigne, Esquire, F. G. S. London, 1860.

CABUL RIVER, a tributary to Indus, rises in lat. 34° 15′ N., lon. 68° 10′ E. near Sir-i-Chusma, in Afghanistan, at an elevation of 8,400 feet. Its course generally is east through the valley of Cabul and plains of Jellalabad and Peshawur, into the Indus. Its length, about 320 miles. It receives the Punchshir, 120 miles; Tazao, 80 m.; Alishang, 120 m.; Soorkh-Rood, 70 m.; Koonér, 230 m.; Suwat, 150 m.; and about 42,000 square miles are drained. It is not navigable along the north base of Khyber Mountains, except on rafts and hides, but is navigable for boats of 40 or 50 tons to Dobundee.—*Rep. San. Com.*

CABOOSE. ANGLO-INDIAN.

Wooleve meen, TAM.	Ecsheegay duntee, TEL.
Nuddie ka Shaikra, DUK.	

This fish is common at Madras.—*Ains. Mat. Med., p.* 155.

CABRAL, the commander of a Portuguese fleet of thirteen ships, which, with 12,000 men, sailed in 1499 to India. In his route he discovered Brazil, A. D. 1,500, and took possession of it, and then sailed to Calicut. He lost four ships, in one of which Bartholomew Dias perished. The Zamorin at first was cordial, but being instigated by the mahomedans, attacked their fort, and killed all the Europeans. Cabral retaliated by destroying ten mahomedan ships, and then returned to Lisbon in July 1501.

CABRAS OR GOAT ISLAND. On the west coast of Luzon, in lat. 13° 51′ N., long. 120° 7′ E., is a low flat woody island.—*Horsburgh.*

CABURNI. SANS. White Copperas.

CACAHUETE. See Ground Nuts.

CACALIA COCCINEA. This flowering plant will grow in any soil, and is mostly found in waste places.

CACALIA KLEINIA. WIGHT.

Lisan ul saur, ARAB.	Gao zuban. PERS.
Hart's ear, ENG.	Ermina-Kullic. TAM.
Oleander leaved Cacalia, ENG.	Yenna pootoonalikel. TEL.
	Jimmudu.

The leaves resemble the tongue of the buffalo, and the stalks are prickly and covered with white spots. While fresh, the leaves have a strong smell like hemlock; they are given in decoction in rheumatism, syphilis, and lepra: indeed, in the class of cases in which sarsaparilla is usually employed by European practitioners. In Bombay they seem to be highly esteemed. Honigberger (p. 246) states that Cacalia kleinia is much used by mahomedan and hindoo practitioners, but very little by English physicians; a water distilled from the leaves is kept for use. *O'Shaughnessy,* page 420. *Honigberg.*

CACALIA SONCHIFOLIA. LINN.
SYN.
Emilia sonchifolia, D. C.

Shudimudi, BENG.	Pella camudi. MALAY.
Udiram panum. SANS.	

A decoction of this plant is deemed antifebrile on the Malabar coast.—*O'Shaughnessy, page* 420.

CACAO. ENG., FR., IT., PORT., and SP. The chocolate nuts or seeds, termed cacao, are the fruit of a species of *Theobroma*, an evergreen tree, native of the Continent of America, but now naturalised in India. That commonly grown is *T. cacao*; but Lindley enumerates two other species, *T. bicolor*, a native of New Granada, and T. *guianensis*, with yellow flowers, a native of Guiana. The chocolate plant is sparingly cultivated in India, in the Philippines, and the northern peninsula of Celebes. In most of the Philippines it is cultivated, but only for home use, and the quality produced is inferior to that of Guayaquil and other parts of America. That of the island of Cebu is the best, being worth from 15 to 20 per cent. more than the produce of the other islands.—*Crawfurd Dicty.*, page 78.

CACAO BUTTER. Solid oil of Theobroma cacao.

CACARY KAI. TAM. Cucumis muricatus.

CACATUINA, or cocatoo, a sub family of Birds of the family Psittacidæ of the order Scansores. See Aves. Birds.

CACH. See Cutch.

CACHALOT, the Physeter macrocephalus, or sperm whale; the male ranges in length from 38 to 76 feet, and is about 60 feet in the average, but the female does not exceed 30 or 35 feet. The Cachalot is without symmetry, of a prevailing dull black colour, occasionally marked with white, especially on the abdomen and tail. They propel themselves round by striking and pulling against the water with the flashes of their tails. The lower jaw is diminutive, slender, and in form not unlike the mandible of a bird; the teeth of the upper jaw, wholly ivory, in aged males are of great solidity, and weigh from two to four lbs. each. It spouts a thick watery mist from its nostrils at intervals of ten or fifteen minutes. Its valuable fat or sperm is chiefly situated in the head. It is a solid mass of soft yellow oily fat, weighing between two or three tons, in a hollow of the head, bared on the upper jaw, and forming the front and lower part of the snout. The cavity, called *Case*, is situated to the right and beneath the spouting canal, and corresponds to nearly the entire length of that tube. It is filled with a very delicate well of cellular tissue, containing in large cells a limpid and oily fluid, which is liberated on the slightest force. The quantity, chiefly spermaceti, contained in this singular receptacle, is often very considerable, and nearly 500 gallons have been obtained from the case of one whale. It has been noticed in the Mediterranean, and a stray individual in the Thames.—*Hartwig.*

CACHAO, the capital of Tonking, is about 84 miles up the river. Till the end of the 17th century, there was a trade with this place by Europeans.—*Horsburgh.*

CACHAR, a district in Bengal, with its chief town, Silchar, a civil station 300 miles from Calcutta, built on the Barrak river. Cachar district is on the north and east of Silhet. The Burmese invaded it, but were again expelled during the first Burmese War, when the legitimate rajah, Govind Chunder, was restored by a Treaty. On the southern frontier of Cachar lies the territory of the Lhooshai Kookee, a most warlike tribe, who in 1848-49 drove up the Kookee from the south into Cachar, but Colonel Lister, by a judicious employment of the Kookies as soldiers, exerted such a salutary influence over the Lhooshai, that they have never given trouble since. The Lhooshai, however, are in their turn being pressed up northwards by another tribe still more powerful than themselves, called the Poi, who are approaching from the southeast. The hilly tract lying between Cachar and Chittagong is inhabited by the Lhooshai, who claim and hold all the tract of country to the south of the parallel of the latitude of Chatterchoora Hill, and east of Hill Tipperah to the Tepai River is the Burmese frontier.—*Aitchison's Treaties,* &c., page 77. *Ann. Ind. Adm. Vol. XII*, p.86. See India, p. 317,340, Krishna, p. 546, Kuki, Naga, Polyandra, 107, Tea.

CACHARA, in long. 83°30′ E., and lat. 25°29′ N.

CACHAR KALUNG. TAM. Dioscorea alata.

CACHETS. FR. Seals.

CACHOU. FR. Catechu.

CACSHA, in the astronomy of the hindus, the orbit of a planet, or the circle which ancient astronomers called the Deferent; for the Cacsha carries Epicycles, (Paridhi) like the Deferent.—*Warren.*

CACTACEÆ, or Cacteæ, the Indian Fig Tribe of exogenous plants, many genera of which are found in S. E. Asia. Some of its species are the food of the cochineal insect. Of these the *Opuntia tuna* seems the most employed in Peru; *O. Hernandezii* is the most celebrated in Mexico; and *O. cochenillifera*, the native province of which is somewhat doubtful.—*Engl. Cyc. p.* 710, *Voigt. p.* 60 to 64.

CACTUS INDICUS. ROXB. Under this name, Dr. J. S. Stewart mentions a plant of the Panjab, on which the wild cochineal insect feeds. It is the Prickly pear of the British, the Kabuli Tsui, Kangi, Gangi, Sho and Chu of the Panjub. Cactus plants are a very small division of a large family. *Dr. Stewart; Voigt.*

CACTEÆ. See Cataceæ.

CACYNNAMA. SINGH. Cinnamon.

CADABA INDICA, LAM. W. & A.

SYN.

Stræmia tetrandra, Roxb.

Indian Cadaba,	ENG.	Chimurudu	TEL.
Ada-morinika	TEL.	Polumorinika	,,
Chekonadi	,,	Vula. ,,	,,

The Indian Cadaba is a straggling shrub; its flowers in terminal racemes, of a dingy white, nearly throughout the year, very common about Mussulman burial grounds. C. Indica, Lam., and C. trifoliata W. and A., are plants of Coromandel.—*Riddell.*

CADALACCA. MAL. Cicer arietinum.

CADALAY. TAM. and CAN. Cicer arietinum.

CADALI. SANS. Musa paradisiaca.

CADALI PUA. TAM. Lagerstrœmia reginæ.

CADAMBA JASMINIFLORA. LINN. Guettarda speciosa. *Linn.*

CADAVAND in long. 74° 19′ E., and lat. 14° 50 N.

CADDERAMAN, in long. 73° 3′ E., and lat. 21° 15′ N.

CADDIS-WORM. These insects are found in all tropical Asia. They belong to the family Leptoceridæ, and the genus Setodes contains several of them; they are enclosed in cases with projecting shields, and probably crawl along the bottoms of shallow streams, so that when their head is protruded in search of food, the shield protects them.—*Hartwig.*

CADELARI. MALEAL. Achyranthes aspera.

CADESIA. The battle on the plains of Cadesia on the border of the Euphrates, fought in A. D. 636, sealed decisively the fate of Iran. This battle endured for three days: the Arabs are said to have lost about 8000 men, while the loss on the Persian side amounted to nearly 100,000. See Kadesia.

CADJAN. ANGLO-MALAY.

Jowli.	GUZ.	Tennam olé.	TAM.
Jowli.	HIND.	Tati aku.	TEL.
Pannam olé.	TAM.	Cobaré aku.	,,

A commercial word, used by the British in India for the dried leaves of the cocoanut and palmyra palms; they are largely used as thatch, which resists the rain better than tiles: but roofs made of them should be relaid before the commencement of the rainy season: 149,500 were imported into Bombay in the year 1850-51. The books of palm leaves are called kavile in Tel. They are prepared from the palmyra, and fan or cocoanut palm, and written on with an iron style. See Ola. Cocoanut palm. Cadaba indica. Fan-palm, palmyra, cocoanut.

CADJU. MALAY. Anacardium occidentale.

CADMILUS. TUSCAN. Camillus.

CADON. Three leagues make a cadon. *Sonnerat Voyages, p.* 6.

CÆCUM, a genus of molluscs. See Mollusca.

CÆLOPS. BLYTH. General character of Rhinolophus and Hipposideros, but the tail and calcanea wanting, and the intercrural membrane acutely emarginated to the depth of an even line with the knees. The proportions of the wings and the development of the antebrachial membrane are the same as in Nycteris. The fur is long and delicately fine, as in true Rhinolophus.—*Blyth.*

CÆLOPS FRITHII. BLYTH. Length from nose to romp, about 1⅞ inch colour dusky or blackish, the fur tipped with dull ashy-brown above, and with paler and somewhat albescent ashy below : the membrane fuscous. Inhabits the Soondurbuns of Lower Bengal.-*Mr. Blyth.*

CÆSALPINEÆ or CÆSALPINIADS. BROWN. The Cæsalpineæ abound in tropical and warm parts of the world ; a few, as Cercis siliquastrum, spread into more northern latitudes. Some are highly ornamental. The wood of many is red-coloured and astringent. Hymenæa courbaril yields a resin, the *Gum Anime* of the shops. The leaves and fruit of some are purgative, as of the Cassia Sennas and of the Tamarind.—*Royle.*

CÆSALPINIA. A genus of plants, some of the species of which are useful trees or shrubs. Of the Indian species, the C. bonducella and C. digyna are climbing plants, of which their seeds and oils are used in medicine. The pods of C. coriaria or sumach, a small tree, are used as a tanning material ; C. paniculata is a magnificent climber of the Himalayas, and C. sappan yields one of the Brazil woods of commerce. The fleshy pods of a Cæsalpinia are largely used as soap in all parts of China, and may be bought in every market town. C. Bimas grows in the Eastern Archipelago.

CÆSALPINIA BONDUCELLA, FLEMING.

SYN.

Guilandina bonduc, *Linn.*
Cæsalpinia bonduc, *Roxb.*

Akul-mookt.	AR.	Katkaliga	HIND.
Nata Kurunja,	BENG.	Katka ranga	„
Ka-loin-dza,	BURM.	Katti-katti	MALAY.
		Kalichi kai	TAM.

A climbing plant, a native of both Indies. The kernels are very bitter ; reduced to powder and mixed with black pepper they are used in 3 to 6 gr. doses in ague with the best results. The seeds yield oil, starch, sugar, and resin. The root is deemed in Amboyna to be a good tonic. It grows in hedges near gardens at Ajmeer. *Bonduc nut oil*, Calichi kai yennai, Tam., is the oil of its common seed. The nuts are irregularly round, and grey ; the almond is white, very hard, and intensely bitter ; and gets a blood red colour from nitric acid.—*Med. Top. of Ajmere. O'Sh., p.* 311. *Beng. Phar., p.* 405. *Fortune's Residence, p.* 146. See Cedrela toona. *Linn.*

CÆSALPINIA. BRASILIENSIS. See Cæsalpinia sappan. Dyes.

CÆSALPINIA CORIARIA, WILLDE.

Poinciania coriaria, *Jacq.*

Libi Libi.	ENG.	Dibi Dibi.	ENG.
Divi Divi.	„	American sumach.	„

This small tree, met with in gardens in Madras, is now growing plentifully about Singapore, Salem, Bangalore, Hoonsoor and at Chicacole. It is a native of South America, but in 1842 was introduced by Dr. Wallich into the Botanical Gardens at Calcutta. From thence, seeds or young plants were sent to Madras and cultivated in the Horticultural Gardens. The seed pods have been extensively used for tanning leather, and for this purpose are considered superior to all the Indian astringents. Leather tanned in this way is considered equal to that of the best of Europe manufacture. The pods are oblong, compressed, somewhat obtuse, curved laterally, the inner side being concave and the other convex. It is to the curved pod that the commercial term of Divi-Divi, or Libi-Libi, is given. The average produce of pods from a full grown tree has been estimated at 100 lbs. weight, one-fourth of which consists of seeds or refuse, leaving about 75 lbs. of marketable matter. The " Divi Divi" pods are of a dark brown color externally, when ripe, and ¾ of an inch wide. Underneath the outer skin of the pods and separated from the seeds by a layer of woody fibre, is a considerable thickness of astringent matter of a light yellow color, almost pure tannin, slightly darker in color than that manufactured from galls, about 60 or 65 per cent. of the whole pod (excluding seeds). At an interval of six feet apart, an acre of ground will contain 1210 trees, yielding an average of 810 cwts., and 30 pounds of divi-divi, or above 20½ tons of marketable matter, worth, at only £5 per ton, £200. The quantity of mucilage it contains precludes it from the use of dyers, but it is largely used by curriers. One part of Divi-Divi is sufficient for tanning as much leather as four parts of bark, and the process occupies only one-third of the time. The selling price ranges from £8 to £13 per ton. The imports into the United Kingdom in 1844, were 3,900 tons ; in 1845 and 1846, about 1,400 tons each year ; during the subsequent three years the imports were merely nominal, but in 1850 a renewed demand seems to have sprung up, for 2,770 tons were imported into Liverpool, and a few tons into London. The ground in which this tree admits of being cultivated is that least adapted to the staple products of tropical agriculture; Guinea grass may be profitably raised beneath its shade. The wood is not known, but deserves attention.—*Voigt. M. E. J. R. Dr. Cleghorn's Reports. Markham, p.* 353. *Simmonds' Comm. Products, p.* 503. *Indian Annals, No. VII.,* page 120. *Juror's Report, Madras Exhibition* 1855, *article* "*Tanning Materials.*"

CÆSALPINIA DIGYNA. Rottler. *W. and A.*

Syn.

Cæsalpinia oleosperma. Roxb. *Fl. Ind.* 2, p. 357.

Umul Kuchi, Ben. | Nunegach'cha, Tel.

This climbing shrub grows in the Peninsula of India and at Bhagulpore. The seeds yield an oil used in lamps.

CÆSALPINIA OLEOSPERMA. Roxb. *Fl. Ind.* Syn of Cæsalpinia digyna.

CÆSALPINIA PANICULATA, Hsoo kouk. Burm. A magnificent climber of Sikkim, festooning the trees with its dark glossy foliage and gorgeous racemes of orange blossoms. *Hooker's Him. Jour., p.* 25.

CÆSALPINIA PULCHERIMA. Swartz. Poinciana pulcherima. *Linn.*

CÆSALPINA PULICATA? Wood is employed in the East Indies as a dye stuff. There is every probability of its becoming an established article of British commerce.—*Cat. Ex.* 62.

CÆSALPINIA SAPPAN, Linn., Roxb. *W. & A.*

Lolan,	Amboyn.	Sapang.	Malay.
Bakam.	Arab.	Kaya sappan.	
Bakkam.	Beng.	T'sia-pangam.	Maleal.
Tein n'gyet.	Burm.	Samia,	Moluccas
Pattang.	Duk.	Samya.	,,
Brasilienhout.	Dut.	Roro.	,,
Sappan wood.	Eng.	Sibukao.	Philippines
Brazil wood	,,	Pao Brasil.	Port.
Red wood.	,,	Patanga.	Sans.
Brasiletto. wood.	,,	Patanghee.	Singh.
Bois de Bresil.	Fr.	Madera del Brezil.	Sp.
Brasilienholz.	Ger.	Sibukas.	Tag.
Bakam.	Guz.	Tsiapangam.	Tam.
Bakam.	Hind.	Vattanghy.	,,
Pattangay.	,,	Pattungh.	,,
Legno del Brasile.	It.	Pattanga chakka.	Tel.
Verzino.	,,	Bakkapu chettu	,,
Sachang.	Jav.	Bakamu chakka.	,,
Pattang.	Mahr.	Bokmo.	Uria.

This tree, the Verzina of Cæsar Frederich, as the various names will show, grows widely over South-Eastern Asia, but its great value as a dye wood prevents it being used as timber. It is a very important article of commerce. The great value of this tree consists in its wood, which is called in commerce Bukkum or Sappan wood. 3,670 tons of this wood was imported into England in 1852, at £7 to £12 the ton. The Brazil-wood of commerce is, however, said to be furnished by two species. Fée considers the Sappan wood of the East Indies (*Cæsalpinia sappan*) to be one of the Brazil-woods of the merchants. But it is probable that it is the produce of many species, and possibly of more than one genus, for De Candolle and Sprengel doubt whether the *Cæsalpinia echina?* is not rather a *Guilandina.* The best Brazil-wood is said to come from Pernambuco, where it is called Pao da Rainha or Queen's Wood, on account of its being a royal monopoly. One Bukkum or Sappan wood of commerce is yielded by *C. sappan.* It grows in the North Arcot forests, in the Nallamallai of Cuddapah in the Kotah jungles, is a native of Siam and Amboyna, is found in the immediate vicinity of Prome, growing on the small hills of the place, but except near Thoungzai, in the northern part of the Rangoon district, where it is also seen in small quantity, Dr. McClelland had not found it in the interior of the province, or in the larger forests, so that it is perhaps scarcely entitled to a place amongst the natural productions of Pegu. It is cultivated in Palghaut for the purpose of dyeing the straw used in mat-making, and from its high price for this purpose, it is not used for carpentry. It grows to a larger size in China than India. It grows with great luxuriance in South Malabar, where it is cultivated rather extensively by the Moplahs, who plant a number of the seeds at the birth of a daughter. The trees require 14 or 15 years to come to maturity, and then become the girl's dowry. Dr. Cleghorn saw many on the banks of the Nellumbuor River, and thinks the dye-wood is damaged by being allowed to float in salt water. It grows there without any care. The tree is not indigenous in the Bombay forests, but the wood is imported in quantity from the Palghaut jungles (?) for dyeing purposes. It grows freely in their cultivated places without any care, but the heartwood is dingy, and wants that fine pinkish red which the imports from the southern forest have. Its extreme height in Ganjam and Gumsur is 36 feet, circumference 2 feet, and height from ground to the intersection of the first branch is 8 feet; is common in the Malayan countries. The heart of this being cut into chips, steeped for a considerable time in water, and then boiled, is used for dyeing there, as in other countries. The cloth or thread is repeatedly dipped in this liquid, and hung to dry between each wetting, till it is brought to the shade required. To fix the colour, alum is added; the common powder used at the Holee festival is extracted from the wood of this tree. The seeds are used for colouring milk. *Marsden's History of Sumatra, p. 95. Voigt, Captain Macdonald, Drs. Wight, McClelland, Gibson, and Cleghorn.*

CÆSALPINIA SEPIARIA, Roxb.

Reichardia ? decapetala, *Kottl*,

Hsoo-kyan-bo, Burm.	Chilloor. Hind.
Mysore thorn. Eng.	Kilgatch. ,,

Grows in Kumaon, Nepaul, Bengal, Ava, Tavoy, Mysore, Ajmire. It is a scandent strong armed shrub, used to fence around fields, and forming a splendid impenetrable hedge, covered with bright green leaves and large yellow spikes of flowers. Hyder Ali surrounded fortified places with it.—*Voigt, Dr. Irvine, Chow-Chow.*

CÆSAREA is surrounded by a wall and deep ditch, the ruins stand by the sea-side, and from the summit of a tower that is washed by the waves, a view is obtained of the whole coast of Palestine from Cape Blanco to Jaffa. When Skinner passed through, the area of this once proud city was used for a burial-ground. *Skinner's Overland Journey, Vol. I., p.* 155.

CAFE. Fr., It., Port., Sp. Coffee.

CAFIR, also Kafir, a term employed in India to designate the African race, usually the large featured, curly haired variety. La Bourdonnais enlisted many into his army, but the British in India have never employed them. They are numerous in the city of Hyderabad. A small number were employed in the Ceylon Rifle Corps; comparatively few of their children grow up, usually falling victims to pulmonary complaints.—*Forbes' Eleven Years in Ceylon, Vol. II., p.* 32. See Kafir.

CAFFREE CHILLEY. Capsicum minimum.

CAGAYANES ISLANDS, are two low woody islands of considerable size lying 54 miles westward of Negros.—*Horsburgh.*

CAGAYAN SOOLOO, in lat. 7° 0′ N., and 1° 30′ E. from Banguey Peak, is an island of considerable size, visible 21 to 24 miles.—*Horsburgh.*

CAGGAR, a river of the Rajputanah desert, also known as the Hakra, but now absorbed by the desert sands, which is said to have occurred many centuries ago. According to tradition, the stream took a westerly direction by Phoolra, where it is still to be traced, and fell into the Indus below Cutch. Its absorption occurred during the reign of Rao-Hamir, prince of Dhat, and caused great physical and political changes in the country. There are vestiges of large towns buried in the sands, amongst them is the Rung Mahal west of Bhutnair, with subterranean apartments still in good preservation. The tradition is that it belonged to a Powar prince in the time of Alexander the Great, Sikandar Roomi. The absorption of the Caggar river is named as one of the causes of the comparative depopulation of the northern desert of India. *Todd's Rajasthan, Vol.* II., *p.* 213-4. See Saraswati.

CAGOT. See Rhodia.

CAHAMILILE, Singh. In Ceylon, a very hard, fine, close, even-grained, heavy wood.

CAHLARA. Sans. Nymphæa lotus.

CAIA, also KOIA, MARAM. Tam. Psidium pyriferum.

CAIEPUT, or KAIUPUTI OLEUM. Cajaputi oil.

CAHOLOOR, in long. 75°47′ E., and lat. 11°26′ N.

CAIFA, or, as the Arabs called it, Haifa, is a walled city, and was so called in consequence of its having been founded, or at least restored by Caiphas, the high priest. The place of the sacrifice of Elijah is at the inner extremity of the neighbouring range, immediately over the brook Kishon.—*Skinner's Overland Journey, Vol.* I., p. 93.

CAIN, according to Bunsen (iv. 426), Qayin, is the type of the dwellers in towns. He was the progenitor of the city building Arian, as also of the vast Turanian wanderers, who move about, all but cut off from the rest of mankind. Cain is called Kabil by mahomedans, and is supposed by them to rest under Jub'l Shamshan, the highest wall of the crater at Aden, where he and his progeny, tempted by Iblis, erected the first fire temple. See Abu Kubays.

CAILLEA CINEREA, *G. & P.*

Syn.

Dichrostachys cinerea, *W. & A.*	Desmanthus cinereus, *Willde.*
Mimosa cinerea, *Linn.*	Acacia dalea, *D. C.*

Mavalinga maram, Tam.	Venuturu, Tel.

This small tree grows in Ceylon, in the Madras Presidency, and is common on sterile plains of the Dekhan, Delhi, Patna, and Paghamew. Wood not known.—*Voigt.*

CAIRN. Ganj. Hind. Birah. Mahr.

A heap of stones or tumulus piled over the resting place of the dead; many of these are found in different parts of Southern India, and have been written on by Major Congreve and others. Prior to the budhist stupas or topes, this seems to have been a common mode of covering the dead; indeed, as Colonel Cunningham remarks, the tope is only a cairn, regularly built. On the Neilgherry hills are found remains of cairns, burrows, cromlechs, kistvaens, and circles of upright loose stones, which are nearly identical with those found in Europe, in the ancient seat of the Celts; and whatever mystery may hang over those remains, and over the race of which they are the only surviving relics, there seems no reason for hesitating to style them, in a general sense, Druidical. In these cairns or burrows, vases, cinerary urns, and other vessels of glazed pottery are often found, which sometimes contain human bones, more or less charred, and mixed with ashes; sometimes a little animal charcoal alone. Research has shown that they are to be met with in various districts in the Presidency of Bombay, in almost every part of the Dekhan and peninsular India, from Nagpore to Madura, in immense numbers on the Anamalay Hills, a range on the south side of the great Coimbatore gap, which forms the commencement and northern face of the Southern Ghauts, those on the Anamalay being of a more advanced order and a better condition than the Neilgherry burrows. Similar remains are found in Circassia and Russia, and circles of stones surrounding ancient graves are found on the southern Arabian coast and in the Somali country in Africa. Major Congreve directed much attention to those on the Neilgherry Hills. All around Hyderabad and Secunderabad, in the Dekhan, are great numbers of cairns, many of which are to be found throughout the Hyderabad country. Captain Meadows Taylor discovered and examined a large number of these remains at Rajan Kooloor, in Sorapoor, and also at Siwarji, near Ferozabad, on the Bhima, and devoted much attention to the comparison of them with similar remains found in England. He calls them Scytho-Celtic or Scytho-Druidical. Neither the hill people, the Todas and Curubaras, nor any hindu, know anything about the race to which these remains belonged, and neither in Sanscrit literature, nor in that of the Dravidian languages, is there any tradition on the subject. The Tamil people generally call these cairns pandu-kuri; kuri means a pit or grave, and pandu refers to the Pandu or Pandavan brothers, to whom so much of hindu mythology relates. The races who raised these cairns were probably dwellers in the country prior to the advent of the present Dravidian occupants, and were expelled by or ultimately became absorbed in the latter, or they may have been a race of nomade Scytho-Druidical shepherds, who wandered into India after it was peopled and settled, about the Christian era, and then wandered out again or became absorbed amongst the people of the country. But there exists within 300 miles of the British capital of India, a tribe of semi-savages, who habitually erect dolmens, menhirs, cysts and cromlechs, almost as gigantic in their proportions, and very similar in appearance and construction to the so-called Druidical remains of Western Europe; and, what is still more curious, though described and figured nearly a quarter of a century ago by Col. Yule, except by Sir J. Lubbock, they are scarcely alluded to in the modern literature of pre-historic monuments. In the Bengal Asiatic *Journal* for 1844, is Colonel Yule's description of the Khasia people of East Bengal, an Indo-Chinese race, who keep cattle but drink no milk, estimate distances traversed by the mouthfuls of *pawn* chewed *en route*, and among whom the marriage tie is so loose that the son commonly forgets his father when the sister's son inherits property and rank. Dr. Thomson dwelt for some months among the Khasia people, and found Col. Yule's account to be correct in all particulars. The undulatory eminences of the country, some 4,000 feet to 6,000 feet above the level of the sea, are dotted with groups of huge unpolished squared pillars and tabular slabs, supported on three or four rude piers. In one spot, buried in a sand grove, were found a nearly complete circle of menhir, the tallest of which was 30 feet out of the ground, 6 feet broad, and 2 feet 8 inches thick; and in front of each was a dolmen or cromlech of proportionately gigantic pieces of rock, while the largest slab hitherto measured is 32 feet high, 15 feet broad, and 2 feet thick. Several that were seen had been very recently erected. The method of obtaining the blocks is by cutting grooves, along which fires are lighted, and into which, when heated, cold water is run, which causes the rock to fissure along the groove; the lever and rope are the only mechanical aids used in transporting and erecting the blocks. The objects of their erection are various—sepulture, marking spots where public events had occurred, &c. It is a curious fact that the Khasia word for a stone, "mau," is as commonly occurs in the names of their villages and places as that of man, maen, and men does in those of Brittany, Wales, Cornwall, &c.; thus Mausmai signifies in Khasia the stone of oath, Mauloo, the stone of salt, Mauflong, the grassy stone, &c., just as in Wales Penmaen Mawr signifies the hill of the big stone, and in Brittany a menhir, is a standing, and a dolmen a tablestone, &c. The resemblance of the burrows and their contents (with the cromlechs, &c.) to the Druidical remains which are discovered in the ancient seats of the Celtic race in Europe, is too exact and remarkable to be accounted for on any other supposition than that of their derivation from the same origin. Hence the people who introduced Druidical rites into India must have brought them with them from Central Asia, and they must have entered India at a period as early as the introduction of Druidical rites into Europe. Over vast wildernesses in the northern regions of Asia, along the banks of the Irtish and beyond the remote Jenesei, innumerabl tumuli are scattered, containing the remain of ancient art and long extinct races of men and it is a remarkable fact, that in this wintry region, where organic nature seems t struggle against the elements for a precariou existence, even the arts of decoration were studied in those times of yore which witnessed the erection of these tombs. Implements of silver, gold and copper, girdles of the precious metals, bracelets decked with pearls, fragments of porcelain, have surprised th travellers who have seen a few of the tumul excavated. Similar tumuli spread over the north of Europe, contain the remains either of the same people or of races more barbarous than the Asiatics. Hundreds of these have been rifled by treasure-hunters or by mere antiquaries little more enlightened, who have sought to make collections of curiosities without any view to promote science or history. Of late years, Esehricht, Nilsson and Retzius have attempted in Denmark and Sweden to identify in these relics the remains of different races supposed to have inhabited successively the north of Europe in early times. Their example has been followed by Dr. Wilde in Ireland and by M. M. Robert and Serres in France. We shall only observe, that in the opinion of the learned Swedes who have devoted their attention to this subject, the sepulchral remains of Northern Europe may be referred to three successive eras. They display different physical types and different stages of advancement in civilization. The oldest are the relics of a people with round heads, having the transverse diameter of the cranium large in proportion to the longitudinal. The implements and ornaments which are found in the tombs of this race indicate the greatest rudeness. They consist of tools and the heads of arrows and lances made of stone and bone, but nothing indicating a knowledge of the use of metals. Whether these oldest tombs were the sepulchres of a Celtic race, is a question not yet decided. It seems to be the opinion of Retzius and that of Nilsson, who has written a learned work on the antiquities of Scandinavia, (Scandinaviska Nordens Urinvanare. af. S. Nilsson, Lund. 1838-43,) that they were the burial places of a people much older than the Celts. Similar remains more recently discovered in France, have been supposed by M. M. Robert and Serres to be referrible in like manner to different eras, but to what successive races they respectively belonged is as yet only matter of conjecture. It seems, however, to have been observed in many parts of Europe, that the skulls, which, from their situation, and from the ruder character of the implements and ornaments buried, in them, may be supposed to have belonged to the most ancient class, are of a rounder and broader form than the crania discovered in tombs of a later date; and this observation tends to support the notion entertained by many persons, that the west of Europe had inhabitants previously to the arrival of Celtic colonies, and that these earliest people belonged to a family of different physical characters from those of the Indo-European race, and were more nearly allied to the nations of Northern Asia. Several objects seem to be in view when raising a cairn. The above practice was a reverence for the dead. Doorgawutee, queen regent of Gurh Mundela, was killed in action against the troops of Akbar. under Asuf Khan, or as an inscription of her family asserts.—(*As. Res. XV.*, p. 437.) "She was interred at the place where she fell," (*Ben. As. Soc. Journal VI.*, 628), "and to this day the passing stranger places as a votive offering, one of the fairest he can find of those beautiful specimens of white crystal in which the hills in this quarter abound. Two rocks lie by her side, which are supposed by the people to be her drums converted into stone; and strange stories are told of their being still occasionally heard to sound in the stillness of the night by the people of the nearest villages. The very ancient custom of casting a stone upon untimely graves is still observed throughout Spain, accompanied by a silent prayer for the dead, but even a mere stranger free from such motives, may find a gratification in adding a stone to the heap, in veneration for the dead. In the Alford district of Aberdeenshire are many cairns of enormous size; some people think they have been beacons to give warning in time of danger, but many of them are situated in low places, and they are supposed to be tombs of some great men. It is a common saying among the people of this country to this day, when any person makes them a gift, 'God I wat gin I live ahint you, 'se add a stane to your cairn,' and to this day many old people never pass by any of these cairns without throwing a stone to it. Many think that the spirit hovers about the place where the body is interred, and the higher the cairn is raised, the spirit is raised the higher from earth to heaven." The remarkable fact connected with the people, whose religious rites and usages of sepulture gave rise to these cairns, is that they have so largely disappeared from India, that not even a tradition of their existence survives. A cairn of considerable size on the road side at the top of the Adjunta ghaut, seems to have been a thank-offering for the ascent of the ghaut. We added, like the rest of our camp, one stone to the heap.—*Ras Mâlâ, Hindoo Annals, Vol. II., p.* 387. *Dr. Pritchard, Rep. Brit. Ass.* 1847, *p.* 236.

CAIRO, the capital of Egypt, in lat. 30°2′ N., lon. 31°15′ E., derives its name from the Arab epithet El Kahireh, "the Victorious," corrupted by Europeans into Cairo. The present city was founded by the Arabs A.D. 973, in the vicinity of the old Egyptian city El. Masr, the "Capital," since called Old Cairo, and to the peoples of the East, Cairo still known as "Misr." It was built out of the ruins of Memphis, the city of the Pharaohs. Cairo was captured by the Turks in 1570, with whom it remained until taken by the French in 1798, who in their turn were expelled by the British in 1801. It has since been the capital and residence of the Viceroy of Egypt. The citadel was built in 1176, by the famous Saladin (Salah-ud Din), who also erected the beautiful aqueduct seen from its walls. In the passage leading to the citadel, upwards of 400 mamelukes were massacred by Mahommed Ali on the 1st of March 1811. Emir Bey alone made his escape. Within the walls are the Pasha's palace, the arsenal, mint, and public offices, a mosque and a well 260 feet deep, known as Joseph's Well. It was not however Joseph, the son of Jacob, who sank it, but a ruler of that name about A.D. 1100. The population, including the suburbs of Old Cairo and Boulac, is estimated at about 250,000, of whom half are mahommedans, and the other half a mixture of Copts, Jews, Armenians, and Europeans. It occupies a space equal to three square miles. It is divided into eight districts, each of which is under the care of a Sheikh, or governor, who is answerable for its peace. These again are divided into quarters, named from the people who inhabit them. Thus, one is called Hart el Kobt, 'the Coptic quarter;' another, Hart el Yahood, the 'Jews' quarter;' and a third, Hart el Suggion, the 'Water-carriers' quarter.' The streets, as is the case in all Eastern towns, for the sake of protection from the sun, are extremely narrow, being not much wider than lanes or wynds, and the houses are so constructed, by the jutting out of the second storey, as nearly to come into contact at the top. *Bunsen II,* 52. *Ladies' Journal*; *Overland Guide.* See Kiang; Nicolo di Conti, Wahabi.

CAITYA. See Chaitya, Topes.

CAIRWAIR, a town in India in long. 79° 58′ E. and lat. 14°5′ N.

CAJAN is the Malay term for the fronds of the palmyra palm. See Cadjan.

CAJANUS BICOLOR. *D. C. Syn. of var.* of Cajanus indicus, *Spr.*

CAJANUS FLAVUS. *D. C. Syn. of var.* of Cajanus indicus, *Spreng.*

CAJANUS INDICUS, SPRENG.

Dal urur,	BEN.	Pigeon-pea,	ENG.
Toor,	HIND.		

Of this there are two varieties, which differ only in the color of the vexillum.

Var. a, with vexillum of a uniform yellow color on both sides.

SYN.

Cajanus flavus, *De Can.*	Cytisus cajan, *Linn. Roxb.*

Lall Toor,	HIND.	Thovaray	TAM.
Segapu,	TAM.	Yerrakundalu,	TEL.

Var. β. vexillum purplish and veined on the outside, yellow on the inside.

SYN.

Cajanus bicolor. *D. C.*	Cytisis pseudo-cajan, *Jacq. Rheede.*

Pad ke Toor,	HIND.	Konda Kondalu,	TEL.
Maen thoverai,	TAM.		

This pea is a particular favourite. When husked and split, it constitutes the kind of 'dhol' which most commonly enters into the formation of the vegetable curry of the hindoo.

The composition of the pigeon-pea is as under.

	Jaffrabad, Bombay, India Museum.	Calcutta Bazaar Do.	Husked Broach Do.
	Per Cent.	Per Cent.	Per Cent.
Moisture ..	10·77	12·80	12·30
Nitrogenous matter ...	20·19	20.38	19 88
Starchy matter ...	64·32	61·90	63·12
Fatty or oily matter ...	1·32	1·52	1·86
Mineral constituents (ash) ...	3·40	3·40	2·89
Total ..	100·00	100·00	100·000

CAJANUS INDICUS. SPRENG. W. A.

Var. a, with the vexillum of a uniform yellow colour on both sides.

SYN.

Citysus cajan, *Linn. Roxb. Willde.*	Cajanus flavus, *De-Cand.*

Dal Arhar.	BENG.	Tur, also Urhcr.	MAHR.
Pai yen khyung.	BURM.	Shakhull.	PERS.
Tuvaray.	CAN.	Adaki.	SANS.
Dhol, Pigeon Pea.	ENG.	Kolu, also Velu of	Simla.
Dangri of.	GUJ.	Segapu	TAM.
Lal Tur also Dhal.	HIND.	Tovaray,	,,
Dhingra of Kangra.	,,	Yerra Kondalu.	TEL.
Kundi ,, ,,	,,	Potu Kondalu.	,,

This is a very valuable pulse.—*Ainslie*, p. 281.

CAJANUS INDICUS. SPRENG. *var. β*, bicolor, D. C. Vexillum purplish and veined on the outside, yellow on the inside.

SYN.

Cajanus bicolor, *De Candolle.*	Cytisus pseudo-cajan, *Rheede.*

Dhal; also Arhar.	Beng.	Tur; Pad ki tur	Hind.
Paiyen khyung.	Burm.	Tur-ka-dhal	,,
Burry Tuvur,	Duk.	Ghirie Adaki.	Sans.
Dhal, Pigeon-pea.	Eng.	Main Tovarai.	Tam.
Two coloured Pigeon Pea.	,,	Malay Tovarai.	,,
Hill Doll.	,,	Konda Kandulu.	Tel.

An excellent pulse, and makes a pudding little inferior to that made of peas.—*Ainslie*; *Mason.*

CAJAPUTI OIL. Eng.

Kayaputi-ka-tel.	Hind.	Kayapooti-tailam.	Tam.
Kayaputtie.	Mal.		

This oil is obtained from the leaves of two trees, the Melaleuca cajaputi of Maton and Roxburgh, and the M. leucodendron, to which latter pertain the Malay words kaya-putih, literally "white wood," from the colour of the bark of the tree. It most abounds in the island of Borneo in the Molucca Sea, where the essential oil is obtained by the distillation of the leaves.—Cajuputy oil appears to have been known only since the time of Rumphius, who describes two trees, 1 *Arbor alba major*, H. A. ii. t. 16, 2 *Arbor alba minor*, H. A. ii. t. 17. f. 1; and in 1798, Mr. Smith, of the Calcutta Botanic Garden, was sent to the Molucca Islands to obtain the true sort of Cayaputi plant. He obtained several of each of the trees, and they have since been distributed all over India, and this species, though a native of Molucca, is able to stand the cold of N. W. India, probably owing to the thickness of its bark. Mr. S. having also sent specimens to England, they were ascertained by Dr Maton to be those of the second kind, and named Melaleuca cajaputi in the London Pharmacopœia for 1809, a name which Dr. J. E. Smith afterwards unnecessarily changed to *M. minor*. The other species obtained by Mr. Smith in 1798, which the Malays also call Cayaputi, (In Murray, App. Medican, and has been named *Caieputi, Kaiuput Oleum*.) is the *Melaleuca leucodendron*, of which the leaves are larger, more falcate, 5-nerved, and smooth, but possess little or no fragrance, and are not known to yield any of this celebrated volatile oil. The *Melaleuca cajuputi*, according to Mr. Mason, is an elegant little tree, with birch-like bark. It is indigenous in the Karen forests and the southern provinces of Tenasserim, but he has not observed it north of the valley of the Palouk river, in latitude about 13°. Dr. Royle mentions that *Melaleuca cajuputi*, Roxb. (fig. 64), forms a small tree with an erect but crooked stem covered with thick, rather soft light-coloured bark; branches scattered, with slender twigs which droop like those of the weeping willow. A native of the Molucca islands, especially of Boeroe, Manipe and of the S. of Borneo. It is called *Daunkitsjil*, but also Cajuputi. The leaves are collected on a warm dry day in autumn, and placed in dry sacks, in which they nevertheless become heated and moist. They are then cut in pieces, macerated in water for a night and then distilled. Two sackfuls of the leaves yield only about three drachms of the oil. This is clear and limpid, of a light green colour, very volatile, diffusing a powerful odour, having a warm aromatic taste, something resembling that of camphor, followed by a sense of coolness. Sp. Gr. 0·914 to 0·927; soluble in Alcohol. It boils at 343°.—*Crawfurd's Dictionary, p. 79. O'Shaughnessy, Bengal Dispensary, Bengal Pharmacopœa, Royle, Mason.* See Melaleuca Cajaputi.

CAJU. Guz. and Hind. Casearia elliptica ?

CAJU or KAJU. Hind. Maleal. Tam. Anacardium occidentale. Cashew nut tree.

CAJU. Dalbergia arborea.

CAJAPUTI OLEUM. Cajaputi Oil.

CAKAY. Can. Cathartocarpus fistula.

CAKE SAFFRON. Crocus sativus.

CAKE SEEDS. See Castor Oil.

CAL. Sp. Quick-lime.

CALA. In hindu astronomy, an arc of one minute of a degree: also the phases of the moon, of which the hindus count 16. Maha Cala, the conjunction or opposition of the sun and moon.

CALA. Sansc. Time in its natural acceptation, a term applied to a variety of mathematical and astronomical subjects. See Kala, Yug.

CALABAR SKINS. Eng.

Petitgris,	Fr.	Vaor,	It.
Grauwerk,	Ger.	Bjelka,	Rus.
Vajo,	It.	Gris pequeno.	Sp.

Siberian squirrel skins, of various colours, used in making muffs, tippets, &c.—*McCulloch. Faulk.*

CALABASH, Cucurbita lagenaria, *Lin.*

Hurrea kuddoo,	Hind.	Chooraykai.	Tam.
Laboo Ambon,	Malay.	Anapa kaya,	Tel.

Is of two kinds, the long or Ceylon, and the round: they are good vegetables when young, and are useful when dry as vessels.—*Rhode, MSS.*

CALABA TREE. Calophyllum.

CALADIUM. See Colocasia: Arum.

CALAH, one of the three cities mentioned in Gen. x. 11, 12, as having been restored by Authur, son of Shem. See Nineveh.

CALAGONG, in 86°24′ E., and 24°58′ N.

CALA JIRA. Hind. Fennel flower or seed.

CALAMANDER MARAM. Tam. Calamander wood.

CALAMANDER WOOD.

Koulou-midrie.	Sing.	Kalumederiye.	Sing.
Koulmidrie.	,,	Calamander maram?	Tam.

A commercial term applied to the woods of two or three species of Dalbergia growing in Ceylon. It is scarce even in Ceylon, whence it has been occasionally brought by private individuals; it is probably the most beautiful of all fancy woods. The figure is between that of rosewood and zebrawood; the colour of the ground is usually a rich hazel brown described as chocolate brown with black stripes. It is a hard wood, and turns well; it is considered to be a variety of ebony. Mr. Rhode (MSS.) met with variegated ebony of rich lustre in logs of ebony cut in the Northern Circar hills: but whether this was owing to the wood being young, or whether the wood was from a distinct tree, he did not know, but there seems no doubt that very many trees yield an ebony. *Ain's. Mat. Med., p.* 211. *McCulloch. Rhode MSS. Holtzapfel, Mendis, Fergusson, Thwaites.* See Dalbergia.

CALAMARY, a species of Loligo, luminous at night.

CALAMBAC, Calambao, Calambeg, also called Aloes wood, is the Agallochum of the ancients, and the Agilla or Eaglewood of the moderns. It is produced in Siam and Silhet by Aquilaria agallocha. See Aquilaria. Eaglewood.—*Royle, Illustr. p.* 171.

CALAMBUCO. The name of one of the best timber trees of the Philippine Islands, the wood of which is largely employed by the natives in the fabrication of domestic utensils and agricultural implements.—*Crawfurd Dic. p.* 79.

CALA MEEN. TAM. Polynemus Indicus.

CALAMIANES. A group of high islands lying between the north end of Kalavan and Mindoro.

CALAMINE. ENG. FR.

Impure carbonate of zinc.	ENG.	Calamina	LAT.
Prepared calamine	,,	Calamina preparata	,,
Calamine	FR.	Zinci Carbonas impurum et præparatum	,,
Kohlensaures zink oxyd	GER.		

The rough calamine is prepared for medicinal use by burning, but the prepared article usually called oxide of zinc, is adulterated with Sulph. Baryta, Carb. Lime, &c., and much of it contains no zinc.—*Royle.*

CALAMITA. IT. Loadstone.

CALAMO AROMATICO. IT. Sweet Flag.

CALAMPELIS SCABRA, one of the Bignoniaceæ, a plant of much beauty, well adapted for trellis-work, the orange coloured flowers being very showy.—*Riddell.*

CALAMUS. This genus of palm trees is indigenous to Southern Asia, and Dr. Griffiths enumerates 58 species; they abound in the Madras territories, along the foot of the Himalayas from Dehra Dhoon to Sylhet, in Assam, Chittagong, in the Malay peninsula, Siam, Cochin-China, Sumatra, and in the Eastern Archipelago. The species are mostly spreading shrubs or small trees, erect, or climbing to a considerable height, or trailing their weak stems several hundred feet along. They furnish the "Dragons-Blood," "Malacca Canes," and "Ratans of Commerce," for, some are formed into walking sticks; some, as the C. rotang and others, form the canes or rattans of commerce, of which the people of the Khassia hills make bridges 300 feet long, and those of the Animallai hills are formed into long looped ladders. Canes are extensively used: the hard flinty coating of their stems are readily split into strips, from which the bottoms of chairs and similar articles are manufactured. It is not, however, possible to say from what particular species the canes of the shops are obtained, it being probable that many are gathered indiscriminately; C. rotang has, however, been said to furnish the stouter, and C. scipionum the more slender sorts. But the C. tenuis of Assam, C. gracilis, C. extensus and others, all furnish the canes of commerce. The stem of *Calamus verus* is described as being 100 feet long, that of *C. oblongus* 300 to 400 feet, of *C. rudentum* upwards of 500 feet, and of C. *extensus* as much as 600 feet; Rumphius even states (Vol. V. 100) that one kind attains the extraordinary length of 1200 feet. It is closely covered over by the tubular bases of the leaves, through which it is drawn by the cane-gatherers when green; afterwards it is dried in the sun, and then is ready for the market. The Ground Rattan is distinguished by its straight head and altogether straight and stiff character, as well as by its pale colour, though some are at least an inch in diameter, and others not half that thickness. Some are distinguished by a hard, and others by a soft bark. It is not known whether the slender are of the same species as the thicker kinds, only growing in different situations, or from roots of different ages, but *Rhapis flabelliformis* is said to yield the Ground Rattan. Another kind of rattan is called Dragon Cane. This, both light and dark coloured, is thicker than the last, with long internodes and a hard bark, less flexible than the common Rattans, but strong, springy, and much valued. A variety, with soft bark, is called Manilla Dragon Cane. Other kinds of canes, imported from China, are known, one with stiff stems and large knots, by the name of *Jambee,* and one as *Whangee.* This has a pale, hard bark, and flexible stems, with internodes of about an inch and a half or two inches, and a number of little holes at the knots. Some of the canes of commerce, however, are produced by species of Bambusa, Saccharum and other grasses. The flesh that surrounds the seeds of this genus is a delicate article of food; limpid water flows from the stems when cut through; and the young shoots of some of them, while still tender, are fritted or boiled, chopped small, and, being fried with pepper and gravy, are said to furnish a very delicate dish. One of the kinds of Dragon's Blood or Jurnang, is the produce of species of Calamus, and those which chiefly yield it are the C. petræus (Lour.), C. rudentum (Lour), C. verus (Lour.), and C. draco (Willd.), of which the last three were by Linnæus reckoned mere varieties of the C. rotang (Linn.) —*Seeman, Voigt, Griffith's Eng. Cyc.*

CALAMUS ACORUS. See Acorus.

CALAMUS ARBORESCENS. An arboreous species of rattan common in the Burmah jungles. Griffith justly terms it "a very elegant palm."—*Mason.*

CALAMUS AROMATICUS.

SYN.

Andropogogon calamus aromaticus.

Shwet-Buch	BENG.	Vyamboo or Vash-ampoo	MAL.
Buch	DUK.	Vaesamboo	TAM.
Sweet-flag	ENG.	Vudya	TEL.

The sweet flag is used in Chinese medicine to a great extent for its spicy warmth. The leaves of the American species of the sweet flag are said to be noxious to insects and to be never eaten by cattle.—*William's Middle Kingdom*, p. 278.

CALAMUS DRACO. WILLDE.

Dam-ul-Akhwain	AR.	Rotan-jarnang	MALAY.
Ky-eing-ni	BURM.	Kanda-murga-rattam	TAM.
Dam-ul-Akhwain	HIND.		

This tree grows in Burmah, the Malay Peninsula, Sumatra and the Eastern Archipelago, and is said to be the species which, as a natural secretion of its fruit, yields the best D'jurnang or Dragon's blood, an article of commerce from the earliest times, and still in demand. In the forest of Tenasserim, the natives call it "Red rattan," as it produces a red exudation like dragon's blood. It is little known in the Peninsula of India. The plants when young are elegant, and resemble small palm trees, after which they become scandent and overrun any neighbouring trees. The fruits are fleshy, red, and astringent. *Dragon's blood* is of more importance in the arts than in medicine, being chiefly used as an ingredient in varnishes and paints. In commerce, it occurs in powder, grains, masses, drops the size of an olive, and in sticks enveloped in the leaf of the talipot palm.—*O'Shaughnessy, page* 642. *Royle Fib. Pl. Mason.* See Calamus, Dragon's Blood.

CALAMUS ERECTUS, ROXB. Its seeds are used as a substitute for betel-nut.

CALAMUS FASCICULATUS, ROXB ?

Buro-bet	BENG.	Parambu	TAM.
Rattan-cane	ENG.	Amla Vetasawmu	TEL.
Perambu	MALEAL.		

This cane is a native of Bengal.

CALAMUS EXTENSUS. ROXB.

Nela poka, TEL.

Its seeds are used for Betel nut. See Canes.

CALAMUS GRACILIS. ROXB. See Canes.

CALAMUS OBLONGUS. See Calamus; Canes.

CALAMUS PETRÆUS, LOUR. One of the sources of the rattan cane. See Calamus; Dragon's Blood.

CALAMUS ROTANG, LINN.; ROXB.

C. Roxburghii, *Griff.*; *Royle.*

Bet.	BENG.	Porambu.	TAM.
Beta.	,,	Betamu.	TEL.
Rattan.	ENG.	Bettapu chettu.	,,
Rattan Cane.	,,	Niru Prabba.	,,
Cane.	,,	Pemu.	,,
Rattan Cane Palm.	,,	Pepu.	,,
Bet.	HIND.	Prabba chettu.	,,
Rotan.	MALAY.	Prabbali. ,,	,,
Bed.	PERS.		

This is said to furnish the stouter of the rattan canes of commerce. The hard flinty coating of their stems, which are readily split into strips, are extensively used for the caning in the backs and bottoms of chairs, sofas, and light carriages. In all the East, canes are made into matting, seats, sofas, baskets and cabinets, and throughout the eastern islands of the Archipelago and about Malacca, vessels are furnished with cables formed of cane twisted or plaited. They are likewise formed into ropes by the people of the forests to drag heavy weights and to bind wild elephants. The most common kind of cane, that employed for caning chairs, &c., is known in commerce by the name of Rattan Cane, and is yielded by a variety of the long trailing species which abound wherever the genus is found. The most northern one, *Calamus Royleanus*, no doubt yields the rattans collected in the Deyra Doon, while *C. Roxburghii* doubtless yields those collected in more southern latitudes. One kind of Rattan is called Dragon Cane. It is thick, both light and dark coloured, with long internodes and a hard bark, less flexible than the common rattans, but strong, springy, and much valued. The late Mr. Griffith named *C. Royleanus*, and applied the name of *C. Roxburghii* to the plant which Dr. Roxburgh called *C. Rotang*, common in Bengal and on the Coromandel Coast. Both, however, are called *bet*, and used for all the ordinary purposes of cane; as are *C. tenuis* of Assam, *gracilis, extensus*, and others. *C. rotang* has been said to furnish the stouter and *C. Scipionum* the more slender sorts of the canes of commerce. The flesh that surrounds the seeds of this genus is a delicate article of food; limpid water flows from the stems when cut through; and the young shoots of some of them, while still tender, are roasted or boiled, chopped small, and, being fried with pepper and gravy, are said to furnish a very delicate dish. Several species are copiouslydescribed in Rumphius' 'Herbarium Amboinense' (vol. v.) under the name of Palmijuncus. Canes form a considerable article of commerce, inasmuch as in some years between four and five millions of them have been exported from the territories under the government of the East India Company. Dampier says : Here we made two new cables of rattans, each of them four inches about. Our captain bought the rattans, and hired a Chinese to work them, who was very expert in making such wooden cables. These cables I found serviceable enough after, in mooring the vessel with either of them ; for when I carried out the anchor, the cable being thrown out after me, swam like cork in the sea, so that I could see when it was tight; which we cannot so well discern in our hemp cables, whose weight sinks them down—nor can we carry them out but by placing two or three boats at some distance asunder, to buoy up the cable, while the long boat rows out the anchor." The tow-ropes mentioned by Marco Polo as used by the Chinese for tracking their vessels on their numerous rivers and canals, seem also to have been made of cane—and not of bamboo, as sometimes stated—as they were split in their whole length of about thirty feet, and then twisted together into strong ropes some hundred feet in length. Mr. G. Bennet says, in his 'Wanderings,' ii, p. 121, that near Macao the rattans are split longitudinally, soaked, and attached to a wheel, which one person keeps in motion, whilst another binds the split rattans together, adding others to the length from a quantity carried around his waist, until the required length of the rope is completed."—*Bennet. Griffiths. Royle. Roxb.* iii, 777 *Voigt.* 639.

CALAMUS ROXBURGHII. Griff. See Calamus, Canes.

CALAMUS ROYLEANUS, Griffith. The most northern of the canes, being found in the Dehra Dhoon, where it abounds.

CALAMUS RUDENTUM of Loureiro, which this author describes as being twisted into ropes in the Eastern regions, and employed, among other things, for dragging great weights and for binding untamed elephants. In Java, Sumatra, and throughout the eastern islands, vessels are furnished with cables formed of cane twisted or plaited. This sort of cable was very extensively manufactured at Malacca. This large species is found in some of the gardens of the Deccan. See Calamus, Canes, Dragon's Blood.

CALAMUS SCIPIONUM, of Loureiro. Griffith considered this to be the species which yields the Malacca Cane, but the plant does not appear about Malacca. He was, however, informed that the canes are imported from Siak on the opposite coast of Sumatra. Some of these are simply mottled or clouded, others of a brown colour, in consequence, it is said, of their having been smoked. The more slender specimens with the longest internodes are those most highly valued.—*Griffith.*

CALAMUS TENUIS. See Calamus, Canes.

CALAMUS VERUS. See Canes, Dragon's Blood.

CALAMUS VIMINALIS.

The fruit.

Bet-ka-phal,	Duk.	Perupum pullum,	Tam.
Vetra,	Sans.	Betta pundoo,	Tel.

It grows in the woods and its fruit is eaten by the common people.—*Ainslie, p.*231.

CALANDRELLA BRACHYDACTYLA. Tam. A bird of India and Abyssinia. See Aves, Birds.

CALANTIGA or ALLANG TEEGA ISLES. Near Strait Duryan in lat. 0° 29′ to 0° 31½′ S., long. 104° 5′ E. ; bearing nearly N. W. by W. from Pulo Varela—*Horsburgh.* See Tanjong Basso.

CALAPA. Malay. Cocoa-nut Palm. From this is derived the old word of Calaper, still usual amongst sailors.

CALANUS, a brahman who accompanied Alexander into Western Asia, he was an old man upwards of 80. He went along with Alexander through Gedrosia, the modern Mekran. But, at Pasargada, in Persia, he fell sick and ended his life by burning himself on a pile. According to Plutarch his true name was Sphones. *Cal. Rev.*

CALASTRY, in long. 79° 48′ E., and lat 13° 45′ N., the principal town of a hindu chief known as the Rajah of Calastry.

CALAYAN, one of the Five Islands. See Babuyan.

CALAZIRA, Hind. Fennel Seed.

CALCAREOUS SPAR. Eng. Safed Surma, Hind. The varieties of this mineral are Calc. spar, Iceland spar, Satin spar, Chalk, Rock-Milk, Calcareous Tufa, Stalactites, Stalagmite Limestone, Oolite, Pisolite, Argentine, Fontainbleau Limestone, white and clouded Marbles, Statuary Marble, compact Limestone, Stinkstone, Anthraconite, Plumbo Calcite, Mineral Agaric. This mineral is used in India medicinally, and they call it white antimony, probably from its rhombohedral fracture resembling that of galena, which is usually employed in lieu of antimony; and natives use this also for the eyes, just as they do sulphide of antimony. It is found all over India in one form or other. At Sankerydroog, 25 miles S. W. of Salem, a great quantity is burnt and sent to Salem and other parts for eating with betel, as betel-eaters hold it in esteem. It requires a much greater heat to burn it than the ordinary kinds of limestone, and is generally burnt in small circular kilns with a jungle shrub which burns with a great heat. When burnt it is much whiter than the usual chunam, takes a most beautiful polish, and is much used for the last coat of plaster in houses, &c., giving the appearance of the whitest marble when polished.

CALCIS CARBONAS. Chalk.

Kils,	AR.	Valaiti Chuna	
H'toung h'pyu,	BURM.	Karrimatti,	HIND.
Carbonate of Lime	ENG.	Calcis Carbonas,	LAT.
Chalk,	"	Kapur Ingris,	MALAY.
Craie,	FR.	Gil Safed,	PERS.
Carbonate de Chaux	"	Simi Chunambu,	TAM.
Kohlensaurer kalk,	GER.		

Chalk is only an article of import into India. The Hindustani, Malay and Tamil names describe it as foreign lime. It is used in households, but the bones of vertebrata, a large part of the shells of testaceous Mollusca, of Crustacea, Corals, Oyster-shells, Crab's-claws, Crab's eyes, as they are called, are all employed in medicine, as also the *lapis judaicus*, which is the spine of fossil Echinus, all consist of pure Carbonate of Lime, with some animal matter intimately intermixed, and are used in Eastern countries medicinally.—P. [illegible]

CALCISPONGIA. See Halispon[illegible]

CALCIUM. LAT. Quick-li[illegible]

CALCULUS CYSTICUS.

		[illegible]eh,	PERS.
Hijr-ul-backir,	AR.	Gorochana,	SANS.
Gairun,	DUK.	Koroshanam,	TAM.
Biliary Calculus	ENG.		

occasionally found in the gall bladders of horned cattle in India. They are generally contained in a little bag, which holds two or three small calculi, each about the size of a tamarind stone, or one large one, as big as a marble. They are of a bright yellow colour, and are considered by native practitioners as highly valuable in certain indispositions of young children, owing to their cordial and alexipharmic qualities. A piece about the bigness of a mustard seed, is commonly given for a dose to a babe of two months old, in conjunction with an infusion of Womum or Siragum. This substance is also used together with Kadukai and Machakai, in preparing a mixture for cleansing the inside of the mouths of new-born infants. The Vyteans prescribe a solution of it in warm ghee, to be poured up the nose in cases of nervous head-ache, and they administer it too in Doshum (Typhus Fever), made into a draught with women's milk.—*Ains. Mat. Med. page* 85. See Bezoar.

CALCUTTA, in lat. 22° 33', long. 88° 20'·6; at the cistern of the barometer at the Surveyor General's Office, is 18 feet G. T. S. above the sea. It is the Capital of British India, built on the left or eastern bank of the Hooghly river. It is the seat of the Imperial Government, is a place of great trade, and has a mint, a cathedral, a governor's house, a fortress, a town-hall, great hospitals, schools and colleges, a botanical garden, custom office, high court, and public monuments to Sir David Ouchterlony, and Warren Hastings and others. Calcutta, Sans.; is from Kalika, (Kalee) and "ăt," to move, and it was the first concession to the British in that part of India. It was, when they obtained it, only a miserable village known as Kalee Ghat, of which some believe its present name is a corruption. It is now supposed to have 400,000 inhabitants at least. It is about 80 miles from the Bay of Bengal. On the 18th June 1756, it was taken by Suraj-ud-Dowlah. Messrs. Drake and Minchin made their escape along with the women and children, but Mr. Holwell held out for 48 hours longer, and he and 146 of the people were imprisoned in a small guard room, about 20 feet square, and on the following morning only 23 issued alive. The Guard-room was thenceforward known as the Black Hole of Calcutta. The Treaty of Calcutta was agreed to on th[illegible] 1757. Calcutta, in [illegible], had 416,000 inhabitants. Its Municipality exercises jurisdiction over seven square miles. The Mahratta Ditch, around Calcutta, was excavated by the British in the middle of the 18th century, as a protection against Mahratta inroads. In Mr. Strachey's Minute on the sanitary condition of Calcutta, it is stated that five thousand human corpses had been annually thrown into the Hooghly at Calcutta. Calcutta has been the nurse of many able statesmen, learned men, and philosophers—Warren Hastings, Sir John Shore, Sir William Jones, Dr. John Borthwick Gilchrist, Dr. Horace Hayman Wilson, Dr. Francis Balfour, Dr. N. Wallich, Dr. O'Shaughnessy, Lord Dalhousie, and Lord Canning, Mr. Carey, and Mr. Marshman.

CALDECOTT, JOHN, Astronomer, Trevandrum, wrote a description of the observatory built at Trevandrum by the Rajah of Travancore, in 1837, in the Mad. Lit. Trans. 1839, vol. VI. 56, and Horary meteorological observations at Trevandrum in the same journal.

CALDANI, a body of christians in Kurdistan, who use the Syrian language in their liturgy.—*De Bode.*

CALDERA BUSH, ENG.

Pandanus odorotissimus. *Linn.*

Screw Pine,	ENG.	Mogili,	TEL.
Talam,	TAM.		

This bush was brought into India from the Mauritius. It is valuable for making soft matting; the leaves also contain fibres that are applied to many useful purposes: the droops from the stem are a mass of tolerably fine fibres: and the ends beaten out are used by plasterers for brushes: the fibre is used for lines and cordage, and the plant itself makes good fences near the sea, but it soon becomes straggling.—*Rhode, MSS.*

CALDERITE, a silico-iron and manganese rock, first described by Mr. Piddington.

CALDOORTY, in Travancore, 700 feet above the sea, with a rain-fall of 150 to 200 inches. Tea is grown there.

CALDWELL, The Reverend Dr. R., during the middle of the 19th century a missionary for christianity in the south of peninsular India. Author of the Comparative Grammar of the Dravidian Languages, and on the Shanar race.

CALEDONIANS. See Polyandry, p. 107.

CALEE KUSTOOREE. HIND. Hibiscus abelmoschus.

CALEMBERI. SING. Coromandel or calamander wood.

CALENDAR of the Chaldæans was seen by Callisthenes, the favourite of Alexander. It commenced B. C. 2234. The Chinese calendar was reformed under the Han dynasty B. C. 1991. Nations have adopted different divisions of time, and no uniform calendar has been general throughout the world, from which history has presented difficulties and contradictions.

The Romans called the first day of each month Calend, from a word which signified "*called*," because the Pontiffs, on those days, called the people together, to apprize them of the days of festival in that month. Hence we derive the name of Calendar.

The Roman Calendar, which has, in great part, been adopted by almost all nations, is stated to have been introduced by Romulus, the founder of Rome. He divided the year into ten months only,—Mars, Aprilis, Maius, Junius, Quintilis, (afterwards called Julius), Sextilis, (afterwards called Augustus). September, October, November and December. Mars, Maius, Quintilis, and October contained 31 days, and each of the six other months 30 days, so that the ten months comprised 304 days. The year of Romulus was, therefore, of 50 days less duration than the lunar year, and of 61 days less than the solar year, and its commencement, of course, did not correspond with any fixed season. Numa Pompilius corrected this calendar, by adding two months, Januarius and Februarius, which he placed before Mars. Julius Cæsar consulted the astronomers of his time, and fixed the solar year as 365 days 6 hours, comprising, as they thought, the period from one vernal equinox to another. The six hours were set aside, and at the end of four years forming a day, the fourth year was made to consist of 366 days. The day thus added, was called intercalary, and was added to the month of February, by doubling the 24th of that month, or according to their way of reckoning, the sixth of the calends of March. Hence the year was called bissextile. This almost perfect arrangement, which was denominated the Julian style, prevailed generally throughout the christian world, till the time of Pope Gregory XIII. The Calendar of Julius Cæsar was defective in this particular, that the solar year, consisting of 365 days 5 hours and 49 minutes, and not of 365 days 6 hours, as was supposed in the time of Julius Cæsar, there was a difference between the apparent year and the real year, of eleven minutes. This difference at the time of Gregory XIII. had amounted to ten entire days, the vernal equinox falling on the 11th instead of the 21st of March, at which period it fell correctly at the time of the Council of Nice, in the year 325. To obviate this inconvenience, Gregory in 1582 ordained that the 15th of October should be counted instead of the 5th for the future. The solar, i. e., really the sidereal year called the "Shuboor Sun," or vulgarly, the "Soor Sun," that is the year of (Arabic) months, was apparently introduced into the Deccan by Toghluk Shah, between A. C. 1341 and 1344, and it is still used by the Mahrattas in all their more important documents, the dates being inserted in Arabic words written in Hindee (Mahrattee) characters. "Fuslee" or "harvest" year of other parts of India was not introduced until the reign of Akbar and Shah Jehan, and they mostly continue to this day to be used even by the British, in revenue accounts.—*History of the Sikhs. Captain Cunningham*, p. 34. *Bunsen*, ii. 402, 442. *T. of Ind. Cal.*

CALENDERING, Mora, *Tel.*, a term said to be corrupted from *cylindering*, cotton or linen goods being passed between *cylinders* or rollers, and made of a level and uniform surface. In India, an appearance similar to that produced by calendering is given to goods, particularly to such chintzes as were intended for the Persian market, by beating them and then rubbing them on a board with a shell slightly waxed. The texture is no doubt injured by it. The coarse cloths formerly largely exported were beaten with a heavy block on a log of wood before being made up in bales.—*Rhode, MSS.*

CALENDULA OFFICINALIS, LINN., Htat-Ta-ya, BURM.

CALF. ENG.

Basava, HIND. | Nandi, HIND.

The brazen calf, mentioned in Scripture as an object of worship by the Hebrews, is still worshipped by hindus in India. It is rarely if ever of wood, is often of brass, but oftener of stone. Colonel Tod tells us that the infant Bappa, son of Nagadit, when only three years old, was conveyed to the fortress of Bhandere, where he was protected by a

Bhil of Yadu descent. Thence he was removed for greater security to the wilds of Parassur. Within its impervious recesses rose the three-peaked (tri-cuta) mountain, at whose base was the town of Nagindra, the abode of brahmins, who performed the rites of the 'great god.' In this retreat passed the early years of Bappa, wandering through these Alpine vallies, amidst the groves of Bal, and the shrines of the brazen calf. The most antique temples are to be seen in these spots—within the dark gorge of the mountain, or on its rugged summit,—in the depths of the forest, and at the sources of streams, where sites of seclusion, beauty, and sublimity alternately exalt the mind's devotion. In these regions the creative power appears to have been the earliest, and at one time the sole object of adoration, whose symbols, the serpent-wreathed phallus (lingam), and its companion, the bull, were held sacred even by the 'children of the forest.' In these silent retreats Mahadeva continued to rule triumphant, and the most brilliant festivities of Oodipoor were those where his rites were celebrated in the nine days sacred to him, when the Jain and Vaishnava mix with the most zealous of his votaries: but the strange gods from the plains of the Yamuna and Ganges have withdrawn a portion of the zeal of the Gehlote from their patron divinity Eklinga, whose dewan, or vicegerent, is the Rana. The temple of Eklinga, situated in one of the narrow defiles leading to the capital, is an immense structure, though more sumptuous than elegant. It is built entirely of white marble, most elaborately carved and embellished; but lying in the route of a bigoted foe, it has undergone many dilapidations. The brazen bull, placed under his own dome, facing the sanctuary of the phallus, is nearly of the natural size, in a recumbent posture. It is cast (hollow) of good shape, highly polished and without flaw, except where the hammer of the Tartar had opened a passage in the hollow flank in search of treasure. Amongst the many temples where the brazen calf forms part of the establishment of Bal-Cesar, there is one sacred to Nanda alone, at Naen in the valley. This lordly bull has his shrine attended as devoutly as was that of Apis at Memphis; nor will Eklinga yield to his brother Serapis. The changes of position of the Apis at Naen are received as indications of the fruitfulness of the seasons, though it is not apparent how such are contrived. There are perhaps in India millions of the idol Nandi, the bull or calf, the Vahan of Siva, and it is always placed in a seated posture looking towards the lingum.—*Tod's Rajasthan, Vol. I., p.* 222. See Bull.

CALF-GRASS. Commelyna communis.

CALI, in hinduism, the expected 10th incarnation of Vishnu in the shape of a white horse with a human head. See Kali.

CALI, several rivers have this name in India. The fall of the Cali Sind through the rocks at Gagrown and the Parbutti (Googul) are well worthy of a visit.—*Tod's Rajasthan, Vol. I., p.* 16.

CALICHIKAI YENNAI. TAM. Bonduc nut oil—Oil of Cæsalpinia bonducella.

CALICO. ENG.

Kattun.	DAN.	Kavin.	MALAY.
Katoen.	DUT.	Kayin-Kapas.	,,
Toile de coton.	FR.	Chaelwarri.	PERS.
Cotón.	,,	Bawelnika.	POL.
Kattun.	GER.	Pano de Algodao.	PORT.
Kaprâ.	HIND.	Wuboika.	RUS.
Safed Kapra.	,,	Tela de Algodon.	SP.
Bombagina.	IT.	Cattun.	SW.
Tela di pinta.	,,	Tuni.	TAM.
Tela..	,,	Gud'da.	TEL

Cotton cloth, originally manufactured at Calicut on the Malabar coast. It is still largely made in India, but the bulk of that used is brought from Britain. Arrian, (i. 539) speaks of the beautiful white linens of India, probably the same with the modern calicoes. These formed, as they do at present, a great part of the people's clothing. The art of *Calico-printing* is one which was common to the Egyptians and Indians, and is still largely practised by the latter, and with a skill which in 1851 produced much to be admired, even in the midst of the productions of the world, and after so many attempts have been made to improve an art certainly imported from the East. Pliny was acquainted with the wonderful art by which cloths, though immersed in a heated dyeing liquor of one uniform colour, came out tinged with different colours, which afterwards could not be discharged by washing. The people of India were found practising the art when first visited by Europeans. They apply the mordaunts both by pencils and by engraved blocks, though it has been said that the former method was the only one employed. Blocks are however used throughout India, but silk handkerchiefs, some exhibited by Mr. Warrington to show the different stage of dyeing as practised in India, had the parts, where the round spots were to be, tied up with thread so as not to be affected by the dyeliquors. The cloth-printers at Dacca stamp the figures on cloth which is to be embroidered. The stamps are formed of small blocks of kantul (*Artocarpus*) wood, with the figures carved in relief. The colouring matter is a red earth imported from Bombay, probably the so-called "Indian earth," from the Persian Gulf. Though the art is now practised to much perfection in Britain, the Indian patterns still retain their own particular beauties and command a crowd of admirers. This is no doubt due in a great measure to the knowledge which they have of the effect of colours, and the proportions which they preserve between the ground and the pattern by which a good effect is procured both at a distance and on a near inspection. *Printing in gold and in silver* is a branch of the art which has been carried to great perfection in India, as well upon thick calico as upon fine muslin. The size which is used is not mentioned, but in the Burmese territory the juice of a plant is used, which, no doubt, contains caoutchouc in a state of solution.—*Royle Arts &c. of India, p.* 483. *Pennant's Hindoostan, Vol.* 1, p. 132. *McCulloch's Commercial Dictionary, p.* 215.

CALIAN. See Kalian.

CALICOIL, the stronghold of the rajah of the Kollari race, now ruled by the Puddacottah rajah. See Kollari.

CALICUT, a town on the Malabar coast in lat. 11° 15¼′ N., long. 75° 47½′ E. It is not visible from the ocean, the only building to be seen being a tall white lighthouse. Thick groves of cocoanut trees line the shore, and are divided from the sea by a belt of sand, while undulating green hills rise up behind and a background of mountains is often hidden by banks of clouds. The name is from Colicodu, a cock crowing, as Cheruman Permal gave his sword and all the land within cockcrow of a small temple to the Zamorin, or Rajah of Calicut, who attained considerable power in the 15th century, but in the early wars of the Portuguese, the British and the mahomedans of Mysore, that high place was lost; Tippoo Sultan destroyed its flourishing trade, expelled from the country the merchants and factors of the foreign commercial houses: caused all the cocoanut and sandal trees to be cut down, and ordered the pepper plants in the whole surrounding district to be torn up and hacked to pieces because these plants, as he said, brought riches to the Europeans and enabled them to carry on war against the Indians. Besides cocoanut products, Coffee, Pepper, Cardamoms, Ginger, Cocculus Indicus, Gingelly seed, Turmeric, Arrowroot, Croton Seeds, and Terra Japonica form articles of export. There are many of the Tiar and Moplah race in the Calicut district. Calicut was the first port at which Vasco da Gama arrived. It was subsequently visited in 1494 by Pedro da Covilham.—*Horsburgh. Bartolomeo's Voyage to the East Indies.* See Tiar, Moplah, Nicolo-di-Conti.

CALICUT MANCHE. A trading ship of the western coast of India. See Boat.

CALIFAH. A ruler, a vicegerent. See Calif, Khalifah.

CALIFORNIA. See Tree.

CALIMERE, a Cape or promontory in the district of Tanjore.

CALI-NADI, the boundary between Delhi and Canouj was the Cali-nadi, or "black stream;" the Calindi of the Greek geographers. Dehli claimed supremacy over all the countries westward to the Indus.—*Tod's Rajasthan, Vol. II, p.* 9.

CALINGA, an ancient kingdom on the eastern coast of the peninsula of India, at its upper end. The dynasty ruled at Rajahmundry and in the Northern Circars. The meaning of the word is, a country abounding with creeks; the town of Kalingapatam alone remains to indicate the rule of that dynasty, but the Kling or Kalen of Burmah and the hindu religion of the Javanese, seem to have come from them. See Kalinga; Krishna, p. 546.

CALINGAPATAM, a sea-port town in the district of Ganjam, in long. 84° 15′ E. and Lat. 18°14′ N.

CALINGULA. TAM. Chadr. Hind. A sluice, a weir, or waterway constructed in the bunds or dams of tanks to permit the escape of surplus water and thus guard against the accumulating waters overflowing the softer parts of the dam.

CALIF, from the Arabic "Khalifah," a vicegerent, was the title assumed by the mahomedan rulers at Bagdad, of whom the first after Mahomed were Umar, Abubakar and Ali. Under the Abbas dynasty, they attained to great power. In Central Asia, the sultan at Constantinople is, even now, universally called the Caliph of Rome.

Caliph Mamun, in A. D. 814, caused a degree of the earth's surface to be measured. This was done on the sandy plains of Mesopotamia, between Palmyra and the Euphrates, by which 56·66 miles were fixed as the equivalent of a degree of the heaven's circumference. Caliph Mamun, son of Harun ur Rashid, forced an entrance into the pyramids. Later, Salah-ud-din, the Saladin of Europeans, used their casings, at least, as stone quarries. Caliph Umar was the second caliph in succession to Mahomed. His time was a period of great extension of mahomedanism. The battle of Kadesia was fought and won by his general Saad, and put an end to the Persian empire of the Parsi. He imposed the khiraj on Syria, and died and was buried at Jerusalem where his tomb still is. *Bjornstjerna's British Empire in the East*, p. 97. *Bunsen* ii. 150. See Caliph, Khalif, Khalifab, Kadesia, Khiraj.

CALISAYA. See Cinchona.

CALLAM OR COLONG STRAIT, is form-

ed by Pulo Callam and its contiguous islands, and on the east side by the mainland and Pulo Loomat.—*Horsburgh.*

CALLEE KUSTOOREE. Beng. Hub-ool-mooshk. Abelmoschus moschatus.

CALLICARPA, a genus of plants of the order Verbenaceæ.

CALLICARPA AMERICANA. Lam. Syn. of Callicarpa lanata.

CALLICARPA ARBOREA, *Roxb.* A small tree of Nepaul, Kemaon, Oude, the Morung mountains, Goalpara, Chittagong and Moulmein. Wood not known.—*Voigt.*

CALLICARPA CANA. Linn. Syn. of Callicarpa lanata. *Roxl.*

CALLICARPA INCANA, Roxb.

Pattharman,	Jh.	Sumali,	Chen.
B'a-pattra,	,,	Denthur,	Rav.
Bannu,	,,	Druss	,,

Grows in the Panjab.—*J. L. Stewart, M. D.*

CALLICARPA LANATA. Linn. Roxb.

Callicarpa cana, *Linn.*
,, tomentosa, *Lam.*
,, Americana, *Lour.*

Massandari,	Beng.	Tondi ;	Maleal.
Aroosha fibre of Chitagong		Teregam,	,,
Bastra,	Hind.	Kat Komul,	Tam.

This plant is recommended by Dr. Royle, for its fibre. O'Shaughnessy says it is bitterish and rather aromatic. *Royle Fib. Plants, p.* 310. *O'Shaughnessy, p.* 456.

CALLICARPA TOMENTOSA. Lam. Syn. of Callicarpa lanata.

CALLICHROA PLATYGLOSSA. A border flower, yellow with a broad ray, it seldom exceeds a foot in height.—*Riddell.*

CALLINICUS, a surname of the second Seleucus, B. C. 246, and the fourth of the Syrian rulers, after Alexander. See Greeks of Asia.

CALLISTHENES, as the friend of Alexander was permitted access to the Babylonish records. See Babylon.—Calendar.

CALLIGONUM POLYGONOIDES. Linn.

Balauja Trans-Indus,		Phogally,	*Flowers,*
Berwaja ,, ,,		Tirni,	*Root.*
Phok or Phog, Cis-Indus.			

The shoots of this moderately sized shrub are greedily eaten by goats and camels, the wood is used as fuel, and in Bikanir the twigs are much used for huts and for linings of shallow wells. In the Cis Sutlej and Southern Punjab, the fallen flowers, are used as largely as in Mozaffargurh for food they are made into bread, or are cooked with ghi and eaten as a relish. *Dr. J. L. Stewart.*

CALI SIND. This river comes from Rangri, and its petty branch, the Sodwia from Raghoo-ghur. There are four rivers in India called Sind: first the Sinde or Indus; the Little Sinde ; the Cali Sinde, or "black river ;" and the Sinde rising at Latoti, on the plateau west and above Seronge.

CALI YUGA. See Yuga.

CALLA AROMATICA. Roxb. Homaonema aromatica.—*Schott.*

CALLAGOUK ISLAND, lat. 15°34.12′ N., long. 97° 38′ in the opening of the gulf of Martaban, is a small granite islandrising about 150 feet above the sea with few trees and with a small skirting shore, with indenting bay, in which mangroves grow. It has also the name of Curlew island : when we visited it in 1863, it had only as inhabitants, the labourers quarrying stones for the lighthouse at Cape Negrais.

CALLISTEPHUS CHINENSIS. Cass. D. C. Syn. of Aster chinensis. Chinese Star. This is very common in Ajmere gardens. Several species are named by Voigt as having been grown near Calcutta. *Genl. Med. Top., page* 206.

CALLITRIS QUADRIVALVIS. Vent ; or jointed Arbor vitæ, produces the juniper resin or sandarach of commerce.

CALLIOPSIS, a genus of flowering plants, esteemed in India. In sowing, dig and pulverise 18 inches deep, give abundance of manure. Water before sowing ; sow thinly and press, and cover with fine sand. *Riddell.*

CALLY-MOLIAN. Tam. Stapelia virgata.

CALMAGROSTIS KARKA. Gmel. Syn. of Amphidonax karka.

CALMUC, See Kalmuk ; Kalkas.

CALNAH, in long. 88° 24′ E., and lat. 25° 29′ N.

CALNEH, an ancient town, on the site of which it is supposed that C'tesiphon was built. See Kesra, Kalneh. C'tesiphon.

CALODIUM COCHIN-CHINENSE. Lour. Syn of Cassyta filiformis. *Linn.*

CALOEE. Sumatran. Rheea : China Grass. Boehmeria nivea.

CALŒNAS NICOBARICUS. The Nicobar Pigeon. It is of great size and splendour ; its appearance and habits exhibit a near approach to the gallinaceous birds. It lives chiefly on the ground, runs with great swiftness, and flies up into a tree when disturbed. Its nest is of the rude platform construction usual among the pigeon family; one of them was built in a tree about ten feet from the ground and contained a single white egg.—*Macgillivray's Voyage, Vol.* 1, *p.* 244.

CALOMEL, a chloride of mercury used in medicine by European and native medical practitioners. It is known in India as Ras-kapur, but is rarely free from soluble corrosive sublimate, which is often present in poisonous proportions, unfitting such for medicinal use.—*Powell.*

CALONYCTION GRANDIFLORUM, CHOISY.

SYN.

Convolvulus grandiflorus, *Linn.*
Convolvulus latiflorus, *Desrouss.*
Ipomæa latiflora, *Rom. & Schult.*

Moon flower,	ENG.	Naga-mughati,	TAM.
Munda valli,	MALEAL.	Vuladambu,	,,
		Naga-rama-katti	TEL

This beautiful creeper was introduced into the East from the West Indies. Its large pure white blossoms open at sunset and fade at daylight. Its seeds, when young, are eaten.

CALONYCTION ROXBURGHII, G. DON.

SYN.

Ipomæa grandiflora, *Roxb.*, *Rheede.*

Nway-ka-zwon a phyoo,	BURM.	Chandnee,	HIND.
		Paudili Vankaia,	TEL.

This large flowered species of Ipomea, whose snowy blossoms open at sunset and shut at daylight, is sometimes seen carried over arbours and pandals on the Tenasserim Coast. It is

> ——— " the white moon-flower such as shows
> On Serendib's high crags to those
> Who near the isle at evening sail
> Scenting her clove trees in the gale."—*Mason.*

CALONYCTION SPECIOSUM, CHOISY.

SYN.

Ipomæa bona nox. *Linn.* Munda Valli *van Rheede.*

This species also with the same English name is seen in European gardens in Tenasserim.—*Mason.*

CALOOWELL. SINGH. Benjamin.

CALOPHYLLUM (from "Kalos" beautiful, and "phullon" a leaf), a genus of plants belonging to the natural order Garciniaceæ. C. angustifolium, inopyllum and tacamahaca, grow in S. E. Asia. Several species in Southern India have not as yet been determined, and possibly they may all be one or two species. They furnish useful timber; C. angustifolium yielding the Poon spars of commerce, or one of them; and C. calaba, the East Indian Tacamahaca, though C. Inophyllum is also quoted as the Tacamahaca tree. Voigt names C. angustifolium, C. inophyllum, C. polyanthum and C. tacamahaca. In the Tenasserim Provinces, house carpenters often use the timber of a species of calophyllum, which also furnishes spars. A species of Calophyllum, Poona marum, is a large tree common in the Western Ghauts of Peninsular India. Its wood is much used in house, and to some extent in ship, building. Calophyllum angustifolium grows in Penang. C. Blumii, Wight, in Java. C. Burmanni in Ceylon. C. decipiens in Travancore. C. longifolium in Bombay. C. Moonii in Ceylon. C. polyanthum, Wall, in the Khasya mountains, C. tacamahaca in Madagascar and the Seychelles, and C. tomentosum, Wight, in Ceylon.—*Voigt* 87, *Mason, McIvor.*

CALOPHYLLUM. *Species.*

Oondie. MAHR.

Common on the Bombay coast, growing on sandy sheltered spots close to the sea on the coast south of the Savitree, north of that river it is rare. The wood never reaches any size, and is always crooked. A good bitter oil is furnished by the seeds.—*Dr. Gibson.*

CALOPHYLLUM, a species of Tenasserim, which house carpenters often use as timber, and the tree also furnishes spars.

CALOPHYLLUM. *Species.*

Poonyet. BURM.

Firewood? of British Burmah. A cubic foot weighs 39 lbs. In a full grown tree on good soil, the average length of the trunk to the first branch is 60 feet, and average girth measured at 6 feet from the ground is 12 feet. It sells at 12 annas per cubic foot.—*Dr. Brandis Cal. Cat. Ex. of* 1862.

CALOPHYLLUM, *Species.*

Thu-ra-phe. BURM.

A wood of British Burmah, (Martaban? and Tavoy?) used for carving images, occasionally for canoes. A cubic foot of it weighs 57 lbs. In a full grown tree on good soil the average length of the trunk to the first branch is 20 feet, and average girth measured at 6 feet from the ground is 4 feet.—*Dr. Brandis.*

CALOPHYLLUM, *Species.*

Thu-ra-pee. BURM.

A large tree, used for masts and spars in Martaban.

CALOPHPLLUM, *Species.*

Turra-phee. BURM.

Used for masts, &c. in Tavoy. (These two seem identical with the above of Dr. Brandis.)

CALOPHYLLUM ACUMINATUM.

Waldombe. SINGH.

A tree of the western parts of Ceylon, the timber of which is used for common house building purposes. A cubic foot weighs 39 lbs. It lasts 20 years.—*Mr. Mendis.*

CALOPHYLLUM ANGUSTIFOLIUM, ROXBURGH. This is the Piney tree of Penang, where it grows. It occurs also in Coorg, Mysore, Canara, and along the ghats, northwards to Sawuntwarree, but rarely of any great size beyond the line of the Neelgoond ghat. It is a magnificent tree when growing in the ravines of the southern ghats of Canara. According to Dr. Gibson and Dr. Cleghorn, the Poon spars are obtained from this tree, but the trees are becoming scarce, and are perhaps more valuable than teak. Dr. Gibson says that, to the best of his knowledge, the Poon spars are furnished by Calophyllum angustifolium, which is a magnificent tree in the ravines of the southern ghats. In habit and appearance it is totally distinct from C. inophyllum. These spars are found along the ghats, from the Sawuntwarree border southward, but rarely of any great size till the line of the Neelcond ghat is passed. At another place he says that the Poon spars of the first class were not procurable in the jungles nearest to the coast, and probably owing to the continued extension of cultivation. It is rather from the inland forests of Canara, backed as these are by those of Coorg to the east, that the supply of Poon spars is principally drawn. On his way from the Mysore border to Sircee, he saw, in more than one place, immense spars of Poon standing as trees, but scorched, burned up, and rendered useless. Dr. Cleghorn tells us that young trees, especially such as are in accessible places, are most carefully preserved in Coorg, Mysore and Canara. In one case which came within his observation, several valuable spars were found in a bridge, the total estimate of which was 250 Rupees. But Poon spars, although highly prized for ship building, are ill suited for making bridges. This incident he remarks, illustrates the importance of officers in the Department of Public Works, Telegraph, &c., making themselves acquainted with the description of timber available and suitable for their wants. He also mentions that the Superintendent of Coorg had received several tenders for the supply of Poon spars and other timber at the distance of at least three miles from the Soolia river, showing the scarcity of such wood and the readiness of the Mangalore contractors to carry it several miles to the nearest water carriage. These opinions of Drs. Gibson and Cleghorn, that the *Poon* spars of commerce are obtained from the Calophyllum angustifolium are of great value. But in 1850, in the Proceedings of the Madras Central Committee for the Exhibition of 1851, the Poon of commerce was supposed by Dr. Wight to be from the Dillenia pentagyna, "Rowaden," Tel., a large timber tree. The wood of Dillenia pentagyna is said to be exceedingly strong and very durable, even when buried under ground, and it is a stately forest tree, common on the face of the W. Ghats. It is also a native of the Northern Circars and flowers in March and April. The similarity of native names between this and Calophyllum inophyllum, led Dr. Wight to suspect some confusion. Dr. Wight was satisfied that D. pentagynia is the tree which furnishes the Poon spars, being a tall, and Calophyllum inophyllum a short stunted tree. Dr. Cleghorn commends the strict conserving of C. angustifolium in Coorg and Canara.—*Drs. Gibson, Cleghorn and Wight, Mr. Rohde's MSS., Dr. Roxburgh, Tredgold. Markham, p.* 452. See Poon.

CALOPHILLUM APETALUM. WILLDE. Syn. of Calophyllum spurium, *Choisy.*

CALOPHYLLUM BINTAGOR. ROXB. Syn. of Calophyllum inophyllum.

CALOPHYLLUM BRACTEATUM. THW. A great tree, grows in the Saffragam District of Ceylon, by the sides of streams at no great elevation.—*Thw. Enum. Pl. Zeyl. I, p.* 51.

CALOPHYLLUM BRASILIENSE. See Calophyllum.

CALOPHYLLUM BURMANNI, WIGHT. Illust. I., 129. This tree grows in the hotter parts of the island of Ceylon, at no great elevation.—*Thw. En. Pl. Zey. I., p.* 52.

CALOPHYLLUM CALABA, LINN.

Calophyllum spurium, *Choisy.*
Calophyllum calabioides, *G. Don.*
Calophyllum apetalum, *Willd.*
Calophyllum calaba, *Linn.*
C. Wightiana, *Wall.*

Bubbe mara,	CAN.	Gorrukeenee,	SINGH.
Calaba tree,	ENG.	Cheru Pinnai.	TAM.
Tsiru panna,	MALEAL.		

This is a native of the western provinces of Ceylon and of Travancore, and produces the true East Indian Tacamahaca resin. It grows to a height of 60 feet, and its timber is used for bullock carts, staves, cask headings and house buildings. In Canara and Sunda, it grows on the banks of rivers and streams, chiefly above the ghats. The wood is used for canoes. Sir J. Herschel seems to think the East Indian Tacamahaca to be the produce of C. inophyllum, for he says, specimens obtained from Calophyllum inophyllum, the Tacamahaca of Ceylon, are desirable in order to aid pharmacologists in accurately determining the Tacamahaca of European commerce.—*Herschel's Manual of Scientific Enquiry, p.* 414. *Dr. O'Shaughnessy, Mr. Mendis, Dr. Gibson, W. & A., p.* 103.

CALOPHYLLUM CALABIOIDES. DON. Syn. of Calophyllum spurium, *Choisy.*

CALOPHYLLUM CUNEIFOLIUM, THW. A great tree, grows at an elevation of 3000 to 4000 feet at Madamahanewera in Ceylon. —*Thw. Enum. Pl. Zeyl. I., p.* 51.

CALOPHYLLUM DECIPIENS. WIGHT. Ic. 128.

Var. a ; foliis obovato-oblongis, basi rotundatis.

Var. β ; foliis cordato-orbiculatis.

Var. a grows in the Ambagamowa District; *Var. β* grows at Hinidoon Corle, at an elevation of 1000 to 2000 feet.—*Thw. Enum. Pl. Zeyl. I., p* 51.

CALOPHYLLUM INOPHYLLUM. LINN ; ROXB.

Calophyllum bintagor, *Roxb.*	Balsamaria inophyllum, *Lour.*

Sultana champa.	BENG.	Oundi ?	MAHR.
Phung-nyet.	BURM.	Ponna.	MALEAL.
Wuma mara.	CAN.	Domba Gass.	SINGH.
Undi.	DUK.	Dombe.	
Alexandrian Laurel.	ENG	Pinne maram.	TAM.
Undi.	HIND.	Ponna chettu.	TEL.
Sarpanka.	,,	Punnaga	
Sultana champa	,,	Punnagamu	

The flower,

Surpun ka phul.	HIND.	Pinne-pu.	TAM.
Punaga.	SANS.	Ponna-pu.	TEL.

The oil,

Poon-seed Oil.	ENG.	Pinnay yennai.	TAM.
Surpun ka tel	HIND.	Pinnay nuna.	TEL.
Pinne-cotte yennai.	TAM.		

This beautiful tree, with an appropriate name, grows in the western part of Ceylon, where it is employed for masts and cross sticks of Yettra dhonies and fishing boats, and poles of bullock carts. A cubic foot weighs 40 lbs. Dr. Wight says, as to Coimbatore, that the tree is rare at that distance from the coast; the wood is coarse grained, but very strong and durable, and on the coast is used in ship building. In the alpine forests, it attains a great size and furnishes the *poon* spars so valuable for shipping ; so far as he could learn, there are two or three species of Calophyllum used for the same purpose under the general name of poon. The Alexandrian Laurel grows to a considerable size on the Malabar Coast, but is a still larger tree on the island of Balambangan and along the shores of Banguey and Sampamnangio, where it has got the names of Palo-Maria and Dancawn. It is also common in the Philippine islands, where the natives prepare oil from the fruit of it in the same manner as is done in Malabar. Near the Burman monasteries, this fragrant flowered species of Calophyllum is occasionally seen in cultivation, and is a remarkably handsome tree. It occurs in Ceylon and in all parts of India, and is in flower and fruit most part of the year. The tree is worthy of attention, as it grows well in sandy tracts close to the sea, where few others thrive ; it is rare at a distance from the coast. In the alpine forests, it attains a great size and it is said furnishes the poon spars so valuable for shipping. It yields fruit twice a year, in March and September, and frequently attains the age of 300 years. It is cultivated in Java for the sake of its shade and the fragrance of its flowers ; the wood is much used in house, and to some extent in ship-building. The wood is coarse grained, strong, durable and ornamental. Mr. Dalrymple tells us, that no tree is superior to this for knees and crooked timber. The seeds yield a valuable oil, and a resin is obtained from the roots, said by some authorities to be identical with the Tacamahaca of the isle of Bourbon. The flowers have the odour of Mignonette. The oil is manufactured and used at Bombay, Tinnevelly, and other parts of India, as a lamp oil. The seeds from which it is obtained are very oleaginous, and yield about 60 per cent. of their weight of oil. In the Samoan islands, the large ava-bowl is made from the tamanu, Calophyllum inophyllum, and occupies a conspicuous place.—*Capt. Elphinstone Erskine, Islands of the Western Pacific, p.* 46. *Drs. Wight, Gibson, Mason, Ainslie, O'Shaughnessy, Eng. Cyc., Roxb.* ii, 606, *Voigt. Thwaites* 1. 51. See Oils.

CALOPHYLLUM LANCEOLARIA. See Calophyllum longifolium.

CALOPHYLLUM LONGIFOLIUM.

The-ra-pi,	BURM.	Tha-ra-bi,	BURM.
Tha-na-bi,	,,		

In Pegu this is found near towns, together with two other species of the same genus, which are of smaller growth. It has a red wood adapted to cabinet making. It is abundant in Mergui, Tavoy, and in lesser quantities near the Attaran River and its feeders. Maximum girth 3 cubits. Maximum length 22½ feet. When seasoned, it sinks in water. It is there used for planking, masts and yards of junks ; it is excellent for helves, but not procurable at Maulmein in sufficient abundance. Strongly recommended to make models. —*Dr. McClelland. Captain Dance.*

CALOPHYLLUM TACAMAHACA. See Calophyllum.

CALOPHYLLUM MOONII, WIGHT, Illust, I. 129 ; Domba keena-gass. SING. A great tree of the Ceylon forests in the district between Galle and Ratnapoora ; not uncommon.—*Thw. Enum. Pl. Zeyl. I., p.* 52.

CALOPHYLLUM TOMENTOSUM, WIGHT Illust. I., 128 ; Keena tel. SINGH. A tree of Ceylon growing in the central province abundantly, at an elevation of 3000 to 5000 feet ; common. Its timber is valued for building purposes, and the seeds are collected in considerable quantities for the oil they contain. *Thw. Enum. Pl. Zeyl. I., p.* 51.

CALOPHYLLUM TRAPEZIFOLIUM, THW. A great tree of Ceylon in the Hunasgiria District, in the Central Province, growing at an elevation of 4000 to 5000 feet.—*Thw. Enum. Pl. Zeyl. I., p.* 51.

CALOPHYLLUM WALKERII, Wight. Illust. I, A tree of Ceylon growing at Newera Ellia, Adam's Peak, and other of the most elevated parts of the island. An oil is extracted from the seeds of this and the other species of the genus, which is used for burning.—*Thw. Enum. Pl. Zeyl. I., p.* 51.

CALOSANTHES INDICA, Blume. W. I.

Syn.

Bignonia Indica, *Roxb.*
„ pentandra *Lour.*
Spathodea Indica.

Khyoung Sha,	Burm.	Achimaram,	Tam.
Shiona	Hind.	Vanga,	„
Aulantha,	Maleal.	Pana wood Anglo	„
Totilla-gass,	Singh.	Dundilapu chettu	Tel.
		Pam-póna chettu,	

This tree has been noticed under its synonym, Bignonia Indica. It grows in Ceylon, Coimbatore, throughout the Konkans, in Mahim, and the jungles of Khandeish. Dr. Wight mentions that it is said to be a very soft and juicy wood, of no value.—*Dr. Wight. Voigt. Thwaites.* See Bignonia Indica.

CALOSOMA. One of the Coleoptera of Hong Kong.

* CALOTES. Mr. Jerdon obtained at Sagur a new species of Calotes, with enormous head, short and thick body, the tail not exceeding the body in length, and the toes also short and strong;—*Jour. B. A. S.*

CALOTROPIS, R. Brown. A genus of plants of the natural order Asclepiaceæ, of which C. gigantea, C. Herbacea and C. Procera are named by Voigt. They produce useful fibres, a cotton wool, an acrid juice, and a gutta percha like substance and a manna. Of this genus three species are met with all over Southern Asia, but Calotropis gigantea is that common in the southern, and C. Hamiltonii in the northern parts, and C. procera grows in Persia; the last extends even to Syria. *Voigt. p.* 540.

CALOTROPIS GIGANTEA. Brown. Var. *a.* Alba or white. Var. *β* lilicina or blue. *Wight's Contrib.*

a. white variety.

Asclepias gigantea. *Linn.*

Ashur.	Ar.	Mudar	Hind.
Akund: the white Var.		Ak.	„
Shwet Akund.	Beng.	Yerika.	Maleal.
Mai-oh.	Burm.	Erika.	..
Rowi	of Bombay	Belerika.	„
Yokada	Can.	Akund	Sans.
Bed-ul-Ashar.	Egypt.	Arka.	
Kercher		Mandara	
Gigantic swallow wort		Sri-ai-Taurkam	
	[Eng.	Moodu-waru.	Singh.
Curled flowered		Vella yercam.	Tam.
Calotropis	Eng.	Tella jilledu.	Tel.
Akund	Hind.	Racha jilledu.	
Muddar		Jilledu	..

The plant.

Akundo	Beng.	Madar,	Hind.
Shwet Akund	„	Yerkam marm.	Tel.
Ak-ka-jhar	Hind.	Jillodu chettoo	Tel.

This plant, with another species or variety, is by the hindus held sacred to Siva. Its flowers, also, form one of the five darts with which Kama, the Indian god of love, is supposed to pierce the hearts of mortals.

> Infants winged, who mirthful throw
> Shafts rose tipped from nectarcous bow.

Sir William Jones refers to it in his hymn to Kama Deva.

Fibre of the Yercum.

Jiladu nara,	Tel.	Yercum nar,	Tam.
Ak,	Hind.		

Rope or Coir.

Madar.	Hind.	Toondee coir,	Tam.
Lamb-dore,		Galum Taroo,	Tel.

There are two varieties of this shrub, *var. a*, alba; *var. β*, lilicina, which grow in Syria, Arabia, Persia, all India, and Burmah, and yield many valuable products. It will grow in barren places, and it has been suggested to plant it as a barrier to drift sands. It yields a kind of manna called *Shakur-al-ashur*, also *Ak* or *Mudar ka shukur* (sugar). Its milky juice has been prepared like caoutchouc and gutta percha. It is evaporated in a shallow dish, either in the sun or in the shade; when dry, it may be worked up in hotwater with a wooden kneader, as this process removes the acridity of the gum. It becomes immediately flexible in hotwater, but hardens in cold water, is soluble in oil of turpentine, and takes impressions. It is however a conductor of electricity. Mr. Monckton proposed making use of the downy substance contained in the follicles of the plant; and had paper made of it, as well pure as when mixed with two-fifths of the pulp of the hemp (Sunn?), which natives use for making paper. As the glossy and silky, but comparatively short fibre, is difficult to spin, a mixture of one-fifth of cotton was made, in order to enable it to be worked. A good wearing cloth, which stands washing and takes a dye, was produced. It is however well suited for stuffing pillows or coverlets. Mr. Monckton calculated that its cost would be one rupee a maund. This silky down of the pods is used by the natives on the Madras side in making a soft, cotton-like thread. It is susceptible of being spun into the finest yarn for cambric, and has been used for the manufacture of a light substitute for flannel by Messrs. Thresher and Glennie of London. It works well with either silk or cotton; it is also being tried by Messrs. Cowan and Co. of Edinburgh as a material for paper. The cleaned fibres are the Bowstring Hemp of India, one of the strongest fibres known. It possesses most of the qualities of flax, and can be worked with the same machinery, as the fibre splits to almost any degree of fineness with the hackle, and bears dressing and beating well. For many years this fibre was used by the wealthy natives for making strong cloths, cambrics, and lawns worn by the rajahs, and it is still employed for making fishing lines, nets, gins, bow-strings and tiger traps on account of its strength. It does not rot readily in water, as the resinous milky juice of the plant (a kind of substitute for gutta percha, but a conductor of electricity) seems to preserve it. The soft white fibre, though till lately unknown in England, has long been familiar to natives of India. Of two ropes made of the fibre, a piece of one, about 7 feet long, sustained for some time 540 lbs., and broke with 552. This was found the strongest of the cordage fibres tried in the Coimbatore district. The fibre is used everywhere in Asia to make fishing lines, being of extraordinary strength, and it is even considered better adapted for cloth than for cordage. The strength of the fibre exceeds that of all other vegetable substances, as the following experiments, of a three strand $\frac{2}{8}$ inch rope will show.

		Weight sustained.
1	Coir (Cocos nucifera)	224 lbs.
2	Pooley Maujee (Hibiscus Cannabinus)	290
3	Marool (Sanseviera zeylanica) ...	316
4	Cotton (Gossypium Herbaceum) ...	346
5	Cutthalay nar (Agave Americana)...	362
6	Junapum or (Sunn Crotolarca juncea)	407
7	Yercum nar (Calotropis gigantea) ...	552

Its fibre is valued at £30 to £35 a ton. The follicles are supposed by some to be the apple of Sodom. Its juice and the powdered bark of its roots, have long been employed as an alterative, by the natives of India, in leprosy and other cutaneous affections, and are no doubt possessed of active properties. Dr. Duncan obtained from it a principle which he called *Mudarine.* In Arabic authors on Materia Medica it is even supposed to have been known to the Greeks. —*Hooker's Him. Journ.* 1, 86; *Royle, Him. Bot.*, 275. *Drs. Riddell, Hunter, Mason, O'Shaughnessy, p.* 43, *Wight M. E. Reports of* 1857. *Royle Fib. Pl. Simmonds. Com. Prod. Burton* iii. 122. *Jour. Agri-Hort. Socy. of India*, viii. 107, 226. See Carbon. Cryptostegia grandiflora. Dipterocarpus lævis. Ficus, Hevea Guianensis.

CALOTROPIS HAMILTONII, Wight. This is the most common species in the upper provinces of India. The bark of the root and the dried milk possess similar properties to those of the C. gigantea; it is, however, far inferior as an emetic remedy. According to Dr. Wallich, this and C. gigantea are the same species.—*O'Shaughnessy, page* 454.

CALOTROPIS HERBACEA, Carey. Asclepias herbacea of Roxburgh.

Chota Akunda. *Hind.*

Their roots are employed to make gunpowder charcoal. The stem yields useful strong fibres, and the white silk-like materials of the pods has been successfully tried to mix with silk.—*Voigt. M. E. Proceedings.*

CALOTROPIS PROCERA, R. Brown.

Syn.

C. Hamiltoni, *W.*	C. gigantea, *Andr.*
Asclepias procera, *Ait.*	

Aka	Hind.	Spalmak	Punjab.
Madar	„	Pashkand	„
Beidelsar	„	Nalla jilledu	
Spulmei	Punjab.	Jilledu	Tel.

This grows in Palestine, Abyssinia, Arabia, Peshawur, in the Punjab is quite arboreous, ten or twelve feet high, and in Sind four and five feet in girth. The bark is stripped and made into halters for cattle, ropes, netting, twine and fishing lines, all durable. The silky floss of its follicles is used for pillows. A manna, Shakr-ul-Ashar, and Shakr-ul-Tighal, obtained from it, is sold in the shops. Its acrid juice is applied to cutaneous ailments and in leprosy, and it is used by Rajputs to poison their infant daughters. The fresh bark of the root, also the powder of the root, are used in leprosy. The insect that causes the manna is called Galtigul.—*Royle. Ill. Ind. Bot.*, p. 275. *O'Shaughnessy*, p. 454. *Dr. J. L. Stewart.*

CALPA. Sansc. Creation or Formation. In hindu theogony, at the end of every Calpa (Creation), all things are re-absorbed in the deity, who, in the interval of another creation, reposes himself on the Serpent Sesha (duration), who is also termed Ananta (endless.) Agni Savarni, in hindu mythology, is one of the 14 Patriarchs who preside successively over the 14 Manwantara of the Calpa.—*Warren's Kala Sanhita*, p. 311.

CALPEE Pergunnahs have been under British rule since 1806.

CALPENTYN ISLAND, south of Cordiva, on the west coast of Ceylon, is low, abounding with cocoanut trees, and extends from lat. 7° 36′ N., to 8° 16′ N., the long tongue of land on the south almost touching the main.—*Horsburgh.*

CALPI, a hindu astronomical term of 4,320,000,000 years. See Calpa.

CALPICARPUM ROXBURGHII. Periwincle tree, *Eng.*

Syn.

Cerbera fructicosa.

Sa-lat,	Burm.	Gutti gunneru,	Tel.

A handsome flowering shrub, almost constantly covered with blossoms, like those of the rosy-periwincle, *Vinca rosea*, but larger and faintly fragrant."—*Mason.*

CALPETTY, a hamlet of Ceylon in the neighbourhood of Colombo.

CALTURA, in L. 80°4′ E., and L. 6°12′ N.

CALUMBA ROOT. Cocculus palmatus, *DeC.* Was first made known as a medicine by F. Redi about 1677. Semedus mentioned it before 1722 among medicines from India. In works on Materia Medica in use in India, it occurs by the name of Kalumb. It grows wild in the forests of Mozambique and Oibo in Eastern Africa.

CALUM TAROO. TEL. Calotropis gigantea.

CALURANA. SINGH. Helleborus niger.

CALUVERE, SINGH. Ebony. ?? ENG. A tree of the northern and eastern part of Ceylon, furnishing a fine black wood, used largely for buildings and furniture. A cubic foot weighs 71 lbs, and it lasts 80 years.—*Mendis.*

CALVARY, a mount or cone. The early christians believed that Adam and Eve were interred here.

CALYPTRÆA. A genus of Molluscs.

CALYA, OR CALINAGA, a serpent slain by Krishna.

CALYMERE POINT, on the Coromandel coast, in lat. 10° 18′ N., long. 79° 51½′ E., is low, and covered with cocoanut trees, with two pagodas near each other about a mile inland.—*Horsburgh.*

CALYPTOMENA VIRIDIS resorts to dense thickets when alarmed, but will sally out to feed on fruit, wild figs, &c. and mingle with barbets and other birds in so doing; the note is low and sweet; a mellow whistle, like the Eurylaimi, they are tame and stupid.—*Mr. Blyth in Bl. As. Soc. Journal.* See Rupicolina.

CALYPTORHYNCUS, VIGORS and HORSFIELD. A genus of birds of the sub-family Cacatuina, Calyptorhynchus galeatum; Vigors and Horsfield, Syn of Psittacus galeatum, Latham, and the Callocephalon australe, Lesson. See Aves. Birds.

CALYPTRANTHES CARYOPHYLLIFOLIA, *Willd.*; *Swartz.*

The tree.

Nawel wood tree	ENG.	Nawel maram,	TAM.
Jamoon,	HIND.	Neredi chettu,	TEL.
Battedombe,	SINGH?		

The fruit.

Jamoon ka phal,	DUK.	Batte dombe,	SINGH
Nawel fruit,	ENG.	Nawel pallam,	TAM.
Kaka jemboo,	SANS.	Neredi paudoo,	TEL.

A large growing timber tree. The wood is light, and chiefly used for making grain measures, but is also made into carriage frames, cots, &c., and in Ceylon, for common house building: a cubic foot weighs 45 lbs. and lasts 20 years. The bark is astringent, and is used in decoction by the natives for dysentery. The fruit when ripe, is of a very dark purple colour, and about the size of a large cherry. In taste it somewhat resembles the sloe, but is much sweeter. A variety of this tree,

Oojla jamoon ka phal,	DUK.	Vullay nawel pallam,	TAM.
Sweta jemboo,	SANS.	Tella neredi pandu,	TEL

has a fruit nearly similar to it in natural qualities, and has got its names from being of a different colour (white).—*Dr. Riddell, Mr. Mendis, Ainslie.*

CALYPTRANTHES CUMINI. ?

Mahadan. SINGH.

Grows in the northern and western provinces of Ceylon, where it is used for common house-building purposes, wheels, &c. A cubic foot weighs 36 lbs., and it lasts 20 years. The berries are eaten when full ripe. —*Mr. Ad Mendis.*

CALYPTRANTHES JAMBOLANA.

Jamoon.	HIND.	Turkolum.	TAM.
Alubo.	SINGH.		

This large and handsome tree flowers in February and March, and thrives in any good soil. It occurs in the central province of Ceylon, and is met with in gardens all over the peninsula of India. It is employed in Ceylon, for common house building. The fruit of the best sort is as large as a common blue plum, which it resembles in appearance; it has a rough astringent flavour, and should be soaked in salt and water before it is eaten. The fresh stone, if planted, grows immediately. —*Dr. Riddell, Mr. Mendis.*

CALYSACCION ANGUSTIFOLIA.

Soorpunni.	CAN.	Koolmara.	CAN.

Grows in Canara and Sunda, in ravines of the ghats and below in sheltered valleys; but is not common in North Canara or Sunda. The tree is used there for one of the "*Poon*" spars. It produces an excellent edible fruit. It is a tree which ought to be conserved everywhere and largely increased.—*Dr. Gibson.*

CALYSACCION LONGIFOLIA. ROXB. *Wight, Ill. I.* 130, *and Icon.* 1999.

Woondy	of Bombay	?	Male Tree, Punag.	CAN.
Poonag	,, ,,	?	Femalo Tree, Wundi	,,
Suringa	,, ,,	?	Taringi.	,,
Gorgoondy	,, ,,	?	Sura ponna.	TEL.
Tha-ra-bi	Burm.	?		

A large tree which grows in the Northern Circars, Konkans, the Kennari jungles, and in Western Mysore. The flower buds "Nagkesur" are used for dyeing silk, and for their violet perfume.— *Useful Plants, Elliot's Flora Andhrica.*

CALYTRIPLEX OBOVATA. RUIZ. and PAV. Syn. of Herpestes monniera.—*H. B. and Kunth.*

CALYX, the botanical name for the outer covering of the flower of a plant.

CALX RECENS USTA. LAT. Lime.

CAMACEES. FR. The Chamaceæ or Chamacidæ of the Eastern Archipelago, containing the chama genus of great clam shells. See Chama.

CAMACHI-PILLU. Wassina-pillu, TAM. Andropogon citratum. Lemon Grass.

CAMACHI-PILLU TYLUM. TAM. Lemon Grass Oil.

CAMACHYA, a hindu goddess, a form of Kali in her avenging character. Kali says, by human flesh, Camachya, Chandica and Bhairava, who assume my shape, are pleased one thousand years." See Kali.

CAMACOLLY, in L. 89° 43′ E., and L. 22° 31 N.

CAMA-CUMPA, SANSC. The vessel of desire, an ornamental vase on hindu temples, from which grain is represented as pouring. —*Tod.*

CAMA-DHWAJA, SANSC., the banner of Cupid.

CAMALA, Hind. The lotus flower.

CAMALA, a name of Lakshmi as the hindu goddess of prosperity. See Lakshmi.

CAMALINE, the Aba cloak of the Arabs. Cloaks made of this material woven of camel's hair. The Aba, or camaline as it is called in the Persian Gulf, is worn in Oman by all classes; it is the camel's hair cloak of Arab shaikhs, and is often striped white and brown. See Aba. Camoleen. Keifyet.

CAMALA DEVI was the wife of the Rajah of Guzerat, and was celebrated as the flower of India. On the fall of Nerwalla, the capital of Guzerat, her husband became a fugitive, and Camala Devi was taken prisoner and carried to Alla-ud-Din's harem; and, attracted by her beauty, wit, and accomplishments, he made her his queen. Her fascinations soothed that savage Pathan in his moodiest hours, and influenced him to a lenity hitherto unknown to him. Her daughter Dewal Devi had escaped with her father. Her reputation for beauty equalled that of her mother, and the son of Ram-deo, the rajah of Deogiri (Dowlatabad) had long sued for her, but her father, proud of his Rajput origin, would not accept a Mahratta, even though a prince. Camala Devi, however, having expressed to Alla-ud-Din a wish to be joined by her daughter, Alla-ud-Din sent a strong army under a general to bring Dewal Devi to Delhi. In this extremity, her father accepted the Mahratta prince, and sent off his daughter to Deogiri under an escort, but the escort was overtaken, the fair maiden seized and carried to Delhi, where Khizr Khan the son of Alla-ud-Din, married her. Their union was very happy, and the poet Khusroo praised them. But Khizr Khan's eyes were put out by Cafoor; a few years from the death of Alla-ud-Din, the throne of Delhi was filled by a converted hindoo, who filled the capital with hindoo troops, put to death all the survivors of Alla-ud-Din's family, and transferred Dewal Devi to his own zenana.

CAMANCONDA DROOG, in L. 77° 21′ E. and L. 14° 16′ N.

CAMAN DROOG, in L. 75° 51′ E. and L. 13° 31′ N.

CAMAO RIVER, in Cambodia, is in lat. 8° 38′ N, long. 195° 0′ E.—*Horsburgh.*

CAMARI, according to Abulgazi, one of the eight sons of Japhet, whence the Camari, Cimmerii, or Cimbri. The Camari are one of the tribes of Saurashtra. The Camari of the *Saura* tribes, or sun-worshippers of Saurashtra, claim descent from garuda, the *bird-god* of Vishnu (who aided Rama to the discovery of Sita), and the *Macara* or crocodile, and date the monstrous conception from that event, and their original abode from *Sancodra* Bate, or island of Sancodra. Whether to the *Dioscorides* at the entrance of the Arabian Gulf this name was given, evidently corrupted from *Sanc'ha-dwara* to Socotra, need not be inquired into here. Like the isle in the entrance of the gulf of Cutch, it is the *dwara* or portal to the *Sinus Arabicus*, and the pearl-shell (*sanc' ha*) there abounds. This tribe deduce their origin from Rama's expedition, and allege that their crocodile mother landed them where they still reside. They seem to be a scythic race from Saka-dwipa and the Dast-i-Kipchak, and who, like the Takshak, Jit, Catti and Hun, have entered India.—*Tod's Rajasthan, Vol.* I., p. 604.

CAMBAIA, the name given to Cambay by Marco Polo, who travelled through it at the close of the 13th century, when on his return to Europe. See Marco Polo.

CAMBALU, an ancient name of China.

CAMBAY, in L. 72° 51′ E., and L. 22° 5′ N., is at the head of the bay which bears its name, on the estuary of the Mahi, between the mouths of the Sabarmati on the west and the Mahi on the east. It is the town in which Zarmonachagas was born. In an account of it in 1503, by Lewes Uertomenes, a learned gentleman of Rome (See As. Soc. Jl. 1824, vol. XVIII,) he says, "In this region is also a mountain where the onyx stone, commonly called the cornelian, is found, and not far from this, another, where chalcedony and diamond are found." It was visited in 1623 by Pietro de la Valle. Captain Hamilton, who visited Cambay in 1681, says:—"The cornelian and agate stones are found in this river, and nowhere else in the world. Of cornelian they make stones for signets, and of the agates cabinets entire, except the lids. I have seen some 14 or 15 inches long, and 8 or 9 inches deep, valued at £40. They also make bowls of some kinds of agate and spoons, and handles of swords, daggers and knives, and buttons and stone seals and snuff-boxes of great value."

Cambay still enjoys celebrity for its agates, mocha-stones, cornelians, and all the chalcedonic and onyx family brought from the ruins of Rajpipla, and here worked into every variety of ornament,—cups, boxes, necklaces, handles of daggers, of knives and forks, seals, &c. Cambay Stones,—the *Akeek* of the natives of Bombay, and by Europeans called agates—include all the kinds of quartzoze minerals found about Cambay and Baroach. They form in these districts a distinct geological formation, derived probably from the amygdaloid trap rocks drained by the Nerbudda and Taptee. They pass in Europe and America for Scotch, Irish, Chamounix, Niagra, Isle of Wight "pebbles," according to the place in which they are sold. The principal varieties sold in Bombay are "crystal," "milk quartz," "prase," a green variety, "moss stone," "mocha stone," "fortification agate," "calcedony," "cornelian," "chrysophrase ?" "heliotrope," "onyx," "obsidian" ? and very rarely "amethyst." These stones abound all over India, and indeed in all trap countries, the Brazils importing them as largely as India into Europe, where the terms "Brazilian" and "Indian agates" are used indifferently by the trade.

The fragments of a Murrhine cup,—the little Cambay stone cup still made in Cambay,—were exhibited in the theatre of Nero, as if, adds Pliny, they had been the ashes of "no less than Alexander the Great himself!" Seventy thousand sesterces was the price of one of these little Cambay cups in Rome in the days of Pompey. The price in Bombay ranges now from Rs. 18 to Rs. 75. Nero paid 1,000,000 sesterces for a cup, "a fact well worthy of remembrance," slily remarks Pliny, "that the father of his country should have drunk from a vessel of such a costly price!" The stones are sawn or ground down: for the native lapidary's wheel consists of a strong wooden platform sixteen inches by six, and three inches thick. In this are two strong wooden uprights. Between these is a wooden roller eight inches long and three in diameter, fastened into a head at the one end. This works on an iron spindle or axle at each end. On the one end the axle is screwed and fitted with a nut, by which the saw or grinding wheel can be made fast. The saw consists of a thin plate of iron,—the cutting material consisting of native emery or ground corundum—koorund as it is called. The lap wheels consist of two circular discs or cakes of lac with ground koorund, coarse or fine, according to the work—of a copper dice for polishing, and a wooden one for finishing the work. These are spun backwards and forwards by a bow, the string of which passes round the roller. The lapidary sits on his hams, steadying the wheel with his foot and holding on the stone with his left hand while he works the bow with his right. For very fine work, a small sized wheel, similar to the English lapidary's wheel, but of smaller size, is used. It is driven by a multiplying wheel, strap and pulley. The custom house returns give the value of the traffic in Cambay stones at an average betwixt £10,000 and £12,000 annually,—one per cent. of the stones finding their way to Europe. Gayni or Gajni was one of the ancient names of Cambay, and it was the port of the ancient Balabhipura, the ruins of which are three miles from Cambay. Near Cambay, says Pennant, "are the vestiges of another antient city called Nagra, perhaps the Comanes of Ptolemy. Almeyda, when he visited the coast of Cambay, observed a very ancient town, with a large mosque, and near it a spacious place, covered with tumuli. The most learned of the natives informed him, that they understood by their records that Hercules, in his expedition to India, had here two great engagements with an Indian prince, and was defeated, and that the tumuli were the graves of the conquered. —*Hamilton's new Account of the East Indies. Lond.* 1744. *Report of the Juries in* 1851. *Pennant's Hindoostan, Vol. I., p.* 64. *Tod's Travels.* See Nicolo di Conti, Pinjrapol, p. 24.

CAMBAY GULF is formed by the coast of Guzerat on the west, and the Peninsula of India on the east, and extends due north 80 miles, being about 3 miles wide at its entrance.

CAMBESSEDIA. W. AND A. Generic Syn. of Boueia, *Meisn.*

CAMBESSEDEA OPPOSITIFOLIA, W. & A.

Mangifera oppositifolia, *Roxb.*
Opposite-leaved Mango. ENG.

This indigenous tree of Tenasserim has a reddish coloured, hard, close-grained wood, said to be durable. It produces a fruit much like a plum. There are two varieties, one bearing an intensely sour fruit, and the other one as insipidly sweet.—*Mason. Voigt.*

CAMBODIA Town is nearly 240 miles up the river of the same name. It is the capital of a country of the same name tributary to Siam, and is often written Kambogia. The Cambodia River, in lat. 9° 34′ N., 54 miles N. by W. from Pulo Condore, discharges itself into the sea by three principal branches.

It is as mall kingdom lying between Siam and Cochin-China, containing about 500,000 people, of whom 4-5ths are the Native Kho. It has four provinces, Potisat ; Kampong-Suai ; Kampong ; and Kampot-Son. For the past three centuries, its independence has been lost, Siam on the one side and Cochin-China on the other having encroached on it. The river is one of the largest in Asia: it is said to rise from a lake in Yunnan.

In Cambodia is the great temple of Nakhon-Vat. It seems to have been built in the tenth century. It is 600 feet at the base and in the centre 180 feet high. Every angle of the roof, every entablature, every cornice bears the seven-headed serpent.—*Horsburgh.* See Kambogia. India, p. 309, 316, 344.

CAMBOGE. See Clusiaceæ ; Gamboge

CAMBOGIA GUTTA. See Hebradendron, also Dyes.

CAMBON. TAM. Holcus spicatus.

CAMBRAIA. PORT. Cambric.

CAMBRAI. SP. Cambric.

CAMBRAJA. IT. Cambric.

CAMBRAY BATISTE. FR. Cambric.

CAMBRIC. ENG.

Kameryksdock.	DUT.	Kammertuch.	GER.
Cambric	ENG.	Cambraja,	IT.
Cambrick	,,	Cambraia.	PORT.
Cambray Batiste	FR.	Kamertug.	RUS.
		Cambrai.	SP.

A fine cotton or linen fabric, largely imported into India,

CAMBRIDGE, author of War in India, London, 1762.

CAMBYNA ISLAND in lat. 5° 21′ S., long. 121° 57′ E., lies on the east side of the Gulf of Boni.—*Horsburgh.*

CAMBYSES, one of the ancient kings of Persia of the Kaianian dynasty, and father of Cyrus. He conquered Egypt B. C. 525 to 522. He took Memphis by storm, and he visited the tomb of Menes.—*Bunsen, Egypt* ii. 610, iii. 237, iv. 288, v. 740. See Fars. Persian kings.

CAMDEVA, the hindu god of love, to whom the last days of spring are dedicated. There is no city in the East where the adorations of the sex to Camdeva are more fervent than in *Udyapura,* "the city of the rising sun." On the 13th and 14th of Cheyt they sing hymns handed down by the sacred bards: "Hail, god of the flowery bow? hail warrior with a fish on thy banner? hail, powerful divinity, who causeth the firmness of the sage to forsake him!" "Glory to Madana, to Cama, the god of gods; to him by whom Brahma, Vishnu, Siva, and Indra are filled with emotions of rapture!"—*Bhavishya Purana. Tod's Rajasthan.* See Cama, Kama, Kammeri deva.

CAMEL. ENG.

Jamal.	ARAB.	Camello.	IT. SP.
DJammal.	,,	Camelus.	LAT.
Chameau.	FR.	Unta	MALAY.
Kameel.	GER.	Ottagam.	TAM.
Kamelos	GR.	Loti-pitta.	TEL.
Gammal.	HEB.	Wonte.	,,
Oont.	HIND.		

Camels are mentioned in several parts of the Old Testament.—1 Kings, chap. iv, v., 29 ; Esther, chap. viii. v. 10 ; and Isaiah chap. lx. v. 6. They are still largely used as beasts of burthen, or to carry messages, and for war purposes in Egypt and in all the countries in the South of Asia, from Syria up to the Burmese countries and China. Two kinds are met with, that with one hump, and another kind with two humps. The species employed on the European steppes through which the Don and Volga flow to their respective seas are of the two-humped kind ; and Lieutenant Irwin distinguishes two races of two humped camels. Beyond the Jaxartes he remarks, "is the two-humped species, in the Turki language called *uzhri,* and by our writers 'Bactrian'; his height is far less than an Indian camel, his hair longer, he is not capable of bearing severe heat, and is not easily naturalized even at Bokhara. In Kokan he is the prevalent species. The camel called *Baghdadi* has also two humps ; but his height is equal to that of the Indian. He is found chiefly in the south-west of Khorasan, yet even there is much outnumbered by the Indian species" —meaning, we presume, the one-humped camel of Turkistan.

In Arabia there are three classes of camels with one hump, the largest and clumsiest, called "khowas," is used to carry heavy burthens at the slow and measured pace of a large caravan ; the second, called deloul, or saddle camels, are selected when young from the former, and are employed in journeys, singly, or with light caravans consisting of similar animals. The third bears the name of Hajin in Arabia, Maherry in Africa, Hurkary in Asia, and is the dromedary of the Hebrew Scriptures. It is lightly formed, and of a very pale brown, approaching a cream color. Being well trained, its speed with a man on its back and no baggage, is between eight and nine miles per hour, and it can accomplish at the utmost seventy miles in 24 hours for two or three days in succession. Wellsted tells us (i. 292) that Nejd is equally the nursery of the camel as of the horse ; but the camel of Oman in all ages is celebrated in the songs of the Arabs as the fleetest; their legs are more slender and straight, and their eyes more prominent and sparkling. The camel of Arabia has only a single hump, which is round and fleshy whilst the animal continues in good condition, but wastes away when out of condition. Wellsted had known £28 paid for one in Oman. Depth of chest and largeness of barrel constitute their chief points of excellency, but £6 to £10 is, however, their average price. General Ferrier tells us that the camels are of two kinds. Those from Turkistan and the country of the Hazarah are exceedingly large and strong, but not very active. Those from the Seistan are slenderly formed and wiry, but, though small, are as hardy an animal as can be found, and incredibly swift; they will travel five and twenty leagues in a day without feeling fatigue, and are never affected by the great heat of the sun; these are generally used for riding, and those of Turkistan as beasts of burden. The Bokhara camel, and the two humped kirghis camel are only surpassed in strength and swiftness by the Arab, and especially the camel of the Hajaz. Besides the Bactrian camel, the Turkomans have a mule breed between this and the Arabian animal, with a hump which can neither be called single nor double, though more near the latter than the former. This is a large, useful, and highly prized animal, capable of transporting from 1,000 to 1,200 lbs. with ease; but the creature is short-lived, and the Arabs do not breed from it, giving as a reason, that the progeny are intractable, and bad-tempered. Camels are extensively bred in Murwut, Meeanwullee and Esakhail, and are purchased by the Povindia and other itinerant traffickers. In Syria, the rutting season is in spring, and the males then become extremely unruly. The female carries twelve months, and breeds one at a time. The young camels are weaned at the beginning of the second year. Camels are known to attain to the age of forty years; but after twenty-five or thirty, its activity begins to fail, and it is no longer able to endure much fatigue. In the northern districts of Arabia, the hair is not shorn from the camel, like wool from sheep, but is plucked off, about the time it is naturally shed by the animal; and seldom amounts to more than two pounds. It is woven into stuffs for clothing.

M. Huc tells us that in Chinese Tartary the fur of an ordinary camel weighs about ten pounds; it is sometimes as fine as silk. That which the entire camel has under its neck and along its legs is rough, tufted, and black; but the hair in general is reddish or grey. The Tartars do not take any care of it, but suffer it, when it falls off, to be lost. The milk of the camel is excellent, both for butter and cheese: the flesh is tough, ill-tasted, and little esteemed by the Tartars. They make use, however, of the hump, which they cut in slices and take with their tea. It is said that Heliogabalus had camel's flesh served at his banquets, and that he was especially partial to the foot, but to modern taste, the flesh of the camel is detestable. A camel of Hajaz can carry from lbs. 250 to lbs. 500, and an ordinary burthen camel can walk about 2½ miles an hour, making daily a march of 20 or 30 miles. M. Fontaine mentions an instance of an Arab on his camel taking and returning with a message from Coseir to Canneh, a distance of 225 miles, in 28 hours, at the rate of 8 miles an hour continually, which seems incredible. Like the sheep and goat, their need for water to drink varies with the dryness or moistness of their food. A succulent grass, moist with rain or dew, and near the bank of rivers, of itself furnishes almost sufficient fluid for their wants, but a dry grass, an arid atmosphere, and a burnt-up soil, render them very thirsty and they then readily rush into water. Skinner mentions (ii, p. 112, 113) that his camels had been 19 complete days without drinking. But they can lay in a large store of food. Pottinger mentions that he allowed his camel lbs. 15 of flour daily, in addition to all the grass it eat. The camels eat the tamarisk and the camel thorn. In parts of the Punjab country, camels are fed in great numbers; they delight especially in "laná," plants of the Salsolaceous tribe, which are also useful for burning to get soda: there is often quite a rivalry of interest over a patch of salsola land, the camel feeder wants it for his animal, and the soda burner for his furnaces. The journeys which they perform are great and protracted. Colonel Chesney mentions that he crossed from Basrah to Damascus 958½ miles in nineteen days, or daily fifty miles.—*Powell's Handbook. Dr. J. L. Stewart, M. D. Chesney's Overland Route; Huc's Recollections of a Journey, p.* 130. *Postan's Personal Observations, p.* 108. *Mignan's Travels, p.* 27. *Wellsted's Travels. Burton's Pilgrimage. Pottinger's Belochistan and Sinde, p.* 1889. *Fontaine's Egypt. Robinson's Travels, Vol.* ii. *p.* 183.

CAMELLIA, a genus of plants from the east of India and China, of the natural order Ternstromiaceæ, and furnishing several species of ornamental flower plants, such as C. Japonica, C. malliflora, and C. reticulata. C. oleifera of China, yields a valuable oil, C. Kissi is a tree of Nepaul, and C. caudata is a shrub of the Khasya Hills.—*Voigt.*

CAMELLIA JAPONICA. The single red variety of this species grows spontaneously in the woods of China, from twenty to thirty feet in height, and with stems thick in proportion. Its elegant flowers are much admired by the people of its native country. The Chinese enumerate thirty or forty varieties, for each of which they have a separate name; many of these varieties are unknown out of China, and Chinese gardeners are likewise ignorant of a large proportion of those found in western conservatories. This elegant flower is cultivated solely for its beauty, but there are other species of Camellia raised for their seeds, the oil expressed from them being serviceable for many household and mechanical purposes. The Camellia bears the same Chinese name that the tea plant does, and the term "cha" is likewise employed, as tea is with ourselves, to designate any infusion.—*William's Middle Kingdom, p. 285. Fortune's Residence.*

CAMELLIA SESANQUA, called by the Chinese Tcha-wha, or flower of tea, grows in great abundance, and without much cultivation, on the hills of the southern provinces of China. The nut, or berry, much resembles, but is larger than the tea-seed, and yields by expression a very fine esculent oil, which the Chinese hold in high estimation.—*Macartney's Embassy, Vol. I.*, p. xxxiv.

CAMELIDÆ. Fossil remains of this family have been discovered in the Sewalik Hills, and in Burma.

CAMELINA OIL. Oil of Myagram sativa.

CAMELLIACÆ. See Theaceæ.

CAMELLO. IT. and SP. Camelus.

CAMELOTE. SP. Camlet.

CAMEL'S HAIR.

Poil de Chameau.	FR.	Unta Ruma.	MALAY.
Laine de chevron.	,,	Mu-i-Shutur.	PERS.
Kameel-haar.	GER.	Pelo-o-lana de Camello.	SP
Oont ka bal.	HIND.	Ottagam ma'ir.	TAM.
Pelo di Camello.	IT.	Wante ventrukulu.	TEL.

The soft underwool is of a light-brown color: in the Punjab it is made into chogas of a cheap kind, but they are soft, warm, and useful. The long hair is not made use of; it is employed in Europe for making paint brushes.—*Powell, Handbook Econ. Prod. Punjab, p.* 187. *McCulloch Dictionary.*

CAMELS-THORN. ENG. Hedysarum alhaji. Alhaji maurorum.

CAMELEOPARD. ENG. Giraffe.

CAMELOPARDALIS GIRAFFA. Giraffe.

CAMELOT. FR. Camelot.

CAMELUS. The Camel.

Djemal.	AR.	Cammello.	IT.
Camel.	ENG.	Camelus.	LAT.
Chameau.	FR.	Uuta.	MALAY.
Kameel.	GER.	Cammello.	SP.
Kamelos.	GR.	Ottagam.	TAM.
Gamal.	HEB.	Loti-pitta.	TEL.
Oont.	HIND.	Wonte.	,,

There are two species of camel, C. Bactrianus and C. Dromedarius, the Bactrian and Arabian, both of which were known to Aristotle, the Bactrian with two humps, and the Arabian, the dromedary, with one. An instance of great endurance of the camel is mentioned by Captain Smith, who purchased one, named Tippoo Sahib, for three hundred Rupees, that carried him six hundred and eighty miles in 12 days across the desert of India from Joudpore to Sukkur in Sind. On another occasion, the same camel carried him 110 miles from Sukkur to Kotree without a halt, in thirty hours.—*Smith's 5 years at Nepaul, p.* 20 *and* 26. See Camel, Camelus bactrianus, Camelus dromedarius, Mammalia.

CAMELUS BACTRIANUS. LINN.

C. ditrophus	*Walther.*	C. Turcicus.	*Alpinus.*

Mecberi.	?	Le Chameau.	FR.
Bactrian Camel.	ENG.	Trampel their	GER.

It is found in Persia and Turkey. It is about 10 feet long, has two humps on its back, has dark brown shaggy hair, long under the throat.—*Eng. Cyc.*

CAMELUS DITROPHUS. Syn. of Camelus Bractrianus.

CAMELUS DROMAS. Syn. of Camelus dromedarius.

CAMELUS DROMEDARIUS. LINN.

C. monotophus,	*Eversmann.*	C. Dromas.	*Gesner.*
		C. minimus.	*Klein.*
C. vulgaris.	*Forskal.*	C. vetus.	*Frisch.*

Jamel.	ARAB.	Dromedary.	ENG.
Camel.	ENG.	Arabian Camel.	,,
		Le Dromedaire.	FR.

Its countries are Africa, Arabia, Persia, Beluchistan, Rajputanah. It is about 8 feet long, has one hump on the middle of the back, pale brown hair.—*Eng. Cyc.* See Camel.

CAMELUS MINIMUS. Syn. of Camelus dromedarius.

CAMELUS SIVALENSIS. A fossil species was discovered by Dr. Falconer and Capt. Cautley in the Tertiary deposits of the Sewalik Hills of Hindustan. Its crania, jaws, and teeth are in the British Museum. It was nearly related to the existing species, but exceeded them by at least one-seventh in height.—*Eng Cyc. page* 733. See Camel:

CAMELUS TURCICUS. Syn. of Camelus Bractrianus.

CAMELUS VETUS. Syn. of Camelus dromedarius.

CAMEO was the cyamea of Pliny. They are still largely manufactured in Italy from the large red shield shell, of the Maldive Islands, the Cassis rufa. It is brought from the Maldives to Ceylon as part of the tribute and is exported to Italy.—*Tennant. Ceylon.*

CAMERON, Colonel G. Poulett, C. B., K.C.T S., and knight of the order of the Military merit of the Conception, an officer of the Madras Army. He was the son of Captain Robert Cameron, R.N. who with all his boat's crew perished in 1807, under the batteries of Ft. St. Andero in the north of Spain. In 1824-25 he served with the force employed in restoring quiet in the Southern Mahratta country. In 1831, he took service under the Duke of Braganza, in the war of succession in Portugal, during which he was in six general actions, and was thanked for his conduct at the final battle of El Pastoleiro, receiving the Cross of the Conception, and the Order of the Tower and Sword was bestowed on him for his gallantry at the battle of the Quinta de Vanzella, on the 5th July 1832. He was subsequently, in 1836, 1837, and 1838, employed with the Persian Army, on the Russian and Turkish frontier. He published in the Army and Navy Gazette a narrative of his adventures in the Caucasus, Circassia and Georgia, which were afterwards collected in two volumes. He subsequently was granted the order of Commander of the Bath. On his return to India in 1862, he was appointed Political Agent at the Court of the Nabob of the Carnatic.

CAMERON, JOHN, Esq., F.R.G., author of our Tropical Possessions in Malayan India. London, 1865.

CAM-HI, an emperor of China who first subdued the hardy Mongol Tartars, which he effected more by kindness than by the sword.

CAMIGUIN, one of the five Islands. See Babuyan.

CAMIRIUM CORDIFOLIUM. GÆRT.

SYN.

Aleurites triloba.
Juglans camirium, *Lour.*

Kamiling.	MALAY.	Kamiri	MALAY.
Lenah kras.	,,		

The nut resembles the walnut in flavour and consistence of the kernel; but the shell is harder, and does not open in the same manner. The natives of the hills use it as a substitute for the cocoanut, both in their cookery and for procuring a delicate oil.—*Marsden's Hist. of Sumatra*, p. 102.

CAMLET. ENG.

Kamelot.	DUT.	Kamelot.	GER.
Camlet.	ENG.	Ciambellotto.	IT.
Camblet.	,,	Kamlot.	RUS.
Camelot.	FR.	Camelote.	SP.

A fabric of wool or long hair.—*McCulloch.*

CAMOENS. The Cave of Camoens, where the Portuguese poet is supposed to have written a portion of his Lusaid, is a place of universal interest and resort at Macao. It is picturesquely situated upon the summit of a small hill, on the margin of the inner harbor. Large granite rocks are here gathered in a confused cluster, which form a natural cave, from the entrance of which there is a wide prospect of the surrounding country. The banian, the pagoda, and other oriental trees unite their foliage and form a grove in which the rocky cave is embowered. Surrounding it are grounds cultivated with trees, creeping vines and flowering shrubs, charmingly arranged by the borders of winding paths, and upon the sides of the hills. Artificial terraces, ingeniously disposed, invite the visitor to the enjoyment of the view or to rest beneath the shade. Above the cave rises a rotunda, from which there is an enchanting prospect, and a marble monument, with a bronze bust and an inscription here record the fortunes, the genius, and virtue of Camoens, the poet. Camoens' visit to Macao was during his banishment from Portugal, in consequence of his pertinacious courtship of a lady of rank, whose parents did not affect an alliance with the poet, who, although of a respectable family, was poor and looked upon as an uncertain adventurer. In 1551, he proceeded to Goa, in India, where he again involved himself in trouble by writing his "Absurdities of India," and was banished to the Moluccas, and in the course of his exile he resorted frequently to Macao, which was a favorite residence of the poet. The cave was his chosen spot of retirement, where, in its "sweet retired solitude," he meditated his great work, the Lusaid. Camoens returned to Portugal, but only to live in misery and die in a hospital. —*American Expedition to Japan, page* 165.

CAMOMILE. ENG.

Ehdakl mirzie,	AR.	Anthemis nobilis	LAT.
Babune-ka-phul,	DUK.	Chamomilla	,,
Camomille,	FR.	Babuneh-gow,	PERS.
Romischehamiller,	GER.	Manzanilla,	SP.
Babune-ka-phul,	HIND.	Chamandi pu,	TAM.
Camomilla,	IT.	Shamanti puvva.	TEL.

A herb much employed in domestic medicine.—*McCulloch. Faulkner.* See Anthemis nobilis. Oils.

CAMOMILLA. IT. Camomile.

CAMOMILLE. FR. Camomile.

CAMOOGA-WOOD, Kamooga maram. A wood of the Northern Circars.

CAMOSCIO. IT. Chamois leather.

CAMOSTREE. See Chamacea: Chamidæ.

CAMORE. The Sakalava were accustomed to make descents on Camore and the coast of Africa. See India, p. 319.

CAMPANIL. SP. Bell metal.

CAMPANULA. Flowering plants, the Canterbury-Bell, Venus's looking glass.—*Riddell, Jaffrey.*

CAMPANULA EDULIS, a native of Arabia Felix. Its thick and sapid root contains a considerable quantity of starch and is eaten by children.—*Eng. Cyc. page* 733.

CAMPANULA GRANDIFLORA grows wild amongst the Chinese hills.—*Fortune's Wanderings, page* 58.

CAMPBELL, A., Esq., M. D., of the Bengal Medical Service, wrote an Itinerary from Phari, in Thibet, to Lassa, with appendices. Routes from Darjeeling to Phari. Report of the death of Cosmos de Koros, the Thibetan scholar. The literature and origin of certain hill-tribes in Sikkim. Memorandum on the Bora Chung of Bootan. On the native alum, or salagit, of Nepaul. On the inhabitants of Sikkim, and their language. Limboos of Sikkim and other hills.—*Beng. As. Soc. Trans. and Journ.*

CAMPBELL, George. A Medical Officer of the E. I. C. on the Madras establishment, of great promise, who made a journey with Konig into the Pulicat Hills. He was wounded and taken prisoner in Colonel Baillie's defeat in 1780, and shortly after died.

CAMPBELL, Lieut. J. Assistant Surveyor General of the Madras army, wrote on the use of Sir Howard Douglas' Reflecting Semicircle. On the use of Kater's Altitude and Azimuth Instrument. Suggestion of a tide register. Table of specific gravities of aqueous vapour, and dry and saturated air. Meteorological Journal of Royacottah. On the advancement of geological science in India. On the construction of the portable barometer. On the formation of the table-land of Southern India. General level 3,000 feet; flat tops of hills 3,500 and 4,500 feet. Plain of Baramahal, 2,000 feet above the level of the sea, soda soils of. On the manufacture of steel in Southern India. Improvement of the silk manufactured in Mysore and the Salem districts. Report on the Kaolin earth of Mysore. Report on the construction of philosophical instruments in India. On the manufacture of pottery ware in Southern India. Meteorological experiments at the Goomsoor mountains. Journey overland to India. On estimating the distance of objects of known height at sea.—*Mad. J. L. and S., Cal. J. Nat. Hist.*

CAMPBELL, George, a Bengal Civil Servant, born in 1824, and sailed for India in 1842. In 1845 he was appointed the Assistant to the Governor-General's Agent N. W. Frontier, subsequently Deputy Commissioner Cis-Sutlej states. On returning to Britain, he published a work in two volumes, entitled "Modern India," and in 1853 another work entitled "India as it may be," in 1854 he was called to the Bar. In 1855 he was appointed Commissioner of the Cis-Sutlej States, and in 1867 Commissioner of the Central Provinces.

CAMPBELL, Sir Colin, See Clyde, Lord.

CAMPEGGIO. It. Logwood.

CAMPHIRE. Eng. Lawsonia alba, *Lam.*

CAMPHOGEN. See Camphor.

CAMPHOR. Eng.

Kafur.	Ar.	Ghansar : Kafur, also Kapur.	Hind.
Pa-yok also Parouk.	Bur		
Kapur.	Chin.	Canfora.	It.
Capuru.	Cyngh.	Kapur Japun.	Jap.
Kamfer.	Dut.	Camphora.	Lat.
Camphor.	Eng.	Kapur Barus.	Malay.
Camphire.	,,	Kapur.	,,
Brass Camphire.	,,	Kafur.	
Malay Camphor.	,,	Kafur.	Pers.
Bruss Capoor.	,,	Alcanfor.	Port.
Crude Camphor.	,,	Kamfora.	Rus.
Refined ,,	,,	Karpura.	Sans.
Unrefined ,,	,,	Alcanfor.	Sp.
Camphre.	Fr.	Carpuram.	Tam.
Kampfer.	Ger.	Carpuramu.	Tel.
Kapur.	Guz.	Kapur.	Bali.

The camphor of commerce is obtained from two trees, one of which, Dryobalanops camphora, grows in Sumatra, Borneo and Labuan: the other, the Camphora officinalis, or Laurus camphora, grows in China. In Spain, a camphor has been obtained from some of the Labiatæ, in Burmah, considerable quantities have been produced from the Blumea grandis, and a chemical product has been obtained in Europe, by passing a stream of muriatic gas through turpentine. The names for it, in all the languages of the world, are sufficiently alike to show that a knowledge of the substance came from one source, probably China or Sumatra, and the words Dutch, or Japan, or Tub camphor, Barus camphor, China camphor, Formosa camphor, have been added merely to indicate the place of production. The *unrefined or crude camphor* of commerce is the product of the Camphora officinalis, and is of two kinds, viz., *Dutch, or Japan, or Tub camphor*, so called from being brought from Batavia to Europe in tubs, containing 1 cwt. to 1¼ cwt., and is in the form of lumps of pinkish grains. The second kind is called ordinary crude camphor, China camphor, and Formosa camphor, much of it being produced in Formosa, shipped to China, and re-shipped to Europe in square chests lined with lead foil, and containing from 1¼ to 1½ cwt. In this crude state it consists of dirty greyish grains. This crude material is obtained by distillation from the roots and wood of the tree, which is chopped up and split up into billets, which are boiled in plenty of water in large boilers, with a conical or round straw cover smeared with clay outside; and, as the water boils, the crude camphor is deposited on the inner straw. Refined camphor is obtained from this product by distillation, which is carried on in various ways, but the whole process consists in using two round vessels, inverting one above the other, and adding 2 per cent. of quick-lime in order to absorb any oil, and distil from one vessel to another. Two earthen pots, luted together, answer perfectly; a very small aperture being left for the escape of air on the first application of heat. It is largely refined in Bombay.

The Borneo or Barus camphor, the Lung-naou-heang or "Dragon's-brain perfume," is a product of the Dryobalanops camphora, Colebrook, the D. aromatica, Gaert., which is found in Borneo and Sumatra. It is much esteemed in China, where it is said to be used for flavouring the Chinese camphor, an inferior article obtained from a different description of tree. It is called by the natives, and in commerce, the 'kapur barus,' or Barus camphor, to distinguish it from the product of the Laurus camphora, or Japan camphor. It derives its name of Barus from a place in Sumatra, where it is produced, and whence it was probably first exported. The Dryobalanops camphora, which yields it, has only hitherto been found in the Indian islands of Borneo and Sumatra, and only in the northern parts of these islands. The tree is said by Mr. Marsden to be very common in Sumatra, in the country of the Batta, but not to be found to the south of the line. In Borneo it was found at first towards the north; but has since been discovered in Sarawak. In Labuan it is common, and is one of the noblest of the trees in that fine jungle: it has a fine straight stem, from which the bark comes off in large flakes; the foliage is very dense, forming a well shaped head to the tree, the stem of which is frequently ninety feet to the first branches. As not one in ten trees is found to produce camphor, its presence must be caused by a particular state, either of vigour or disease, in the tree. And the camphor collectors cut notches in the trees, in order, before felling, to ascertain whether they are likely to produce camphor. It is said that in those which produce it, the younger and smaller trees are often found to be quite as prolific as the older and larger trees. The camphor is found in a concrete state in the crevices of the wood, so that it can only be extracted by felling the tree, which is afterwards cut into blocks and split into wedges, and the camphor, which is white and transparent, is then taken out. An essential oil is also found in hollows in the wood, which the natives crystalize artificially; but the camphor thus obtained is not so much esteemed as that found naturally crystalized. The tree is found on all the northern parts of Borneo, and is said to be particularly abundant in the country of the Kyan, in the interior, on the Bintulu and Rejang rivers. The produce, though so valued by the Chinese, is not much used by the natives, though it is occasionally taken inwardly as a medicine. The price in China of the Borneo camphor is said to be higher than that of Japan in the proportion of twenty to one: it has been supposed that this disproportion is caused more by some fancies of the consumer, than any real distinction of properties. The camphor occurs only in small fissures, from which the natives, having felled the trees and split up the wood, scrape it off with small splinters or with their nails. From the oldest and richest trees they rarely collect more than two ounces. After a long stay in the woods, frequently of three months, during which they may fell a hundred trees, a party of thirty persons rarely bring away more than 15 or 20 pounds of solid camphor, worth from 200 to 250 dollars. The variety and price of this costly substance are enhanced by a custom which has immemorially prevailed among the Batta race, of delaying the burial of every person who, during his life, had a claim to the title of Rajah (of which each village has one) until some rice, sown on the day of his death, has sprung up, grown and borne fruit. The corpse, till then kept above ground among the living, is now, with these ears of rice, committed to the earth, like the grain six months before, and thus the hope is emblematically expressed that, as a new life arises from the seed, so another life shall begin for man after his death. During this time the corpse is kept in the house, enclosed in a coffin made of the hollowed trunk of a Durinon, and the whole space between the coffin and the body is filled with pounded camphor, for the purchase of which the family of the deceased Rajah frequently impoverish themselves. The "camphor oil" is said to be collected by incisions at the base of the trunk, from which the clear balsamic juice is very slowly discharged. Baru camphor is getting scarce, as the tree must be destroyed to obtain it. About 800 piculs are annually sent to China. The proportion between Malay and Chinese camphor is as eighteen to one; the former is more fragrant, and not so pungent as the latter. Nine hundred and eighty-three tubs of camphor were exported from Java in 1843; 625 bales were imported in 1843, the produce of the Japanese empire, and 559 piculs exported from Canton in 1844. The price of unrefined camphor in the Liverpool market in July 1853, was £4 to £4 10s. the cwt. The altered relations with Japan and China will doubtless affect the course of trade. The total import into England is about 300 tons a year, and it sells at 90 shillings a cwt.

Borneo camphor, as found in the wood of the ryobalanops camphora, is in white crystaline fragments. Specific gravity 1,009. Its odour is not of so diffusable a nature; otherwise it closely resembles the camphor from the Camphora officinarum. The wood of the camphor tree is good timber, suited for house and ship-building. The liquid camphor of the same tree appears of the nature of Camphogen. Dr. A. T. Thomson, by passing a current of oxygen gas through it, converted it into camphor. The oil, both in a fluid and solid state, is found in the body of the tree where the sap should be, but not in all trees. The liquid oil is abundant, and little appreciated, but the concrete bears a very high price, which depends wholly on its scarcity, and the fancy of the Chinese and Japanese, who ascribe high medicinal virtues to it, which it probably possesses in no higher degree than the cheap article which they themselves obtain by the distillation of the wood of the Camphora officinalis, and which may be had in the same markets for about-one hundreth part of the price. It is largely employed in medicine.—*Low's Sarawak*, pp. 44-46. *Marsden's Hist. of Sumatra*, p. 150. *Royle's Materia Medica*, p. 536. *Crawfurd's Dictionary*, p. 81. *Simmond's Commercial Products. O'Shaughnessy Bengal Dispensatory. Mason's Tenasserim. Tomlinson*, p. 287 8. See Camphora officinalis; Dryobalanops camphora.

CAMPHORA, LAT. Camphor.

CAMPHORA, a genus of plants belonging to the Lauraceæ, of which three species, C. glandulifera, C. officinarum and C. porrecta occur in the south and east of Asia. *Voigt*.

CAMPHORA GLANDULIFERA, NEES. This is the Laurus glandulifera, Wall., and yields the Sassafras bark of Nepaul. It is a tree of the Nepaul mountains, with small yellowish green odoriferous flowers, and pale yellow light wood, smelling strongly of camphor while fresh, but weak and unfit for furniture. Its bark has been named the Sassafras of Nepaul. Dr. Royle says (*Ill. Him. Bot.*) the Camphora glandulifera, discovered by Dr. Wallich, contains solid grains of camphor in its wood.—*Voigt.*, p. 308. *Royle*, p. 324. *O'Shaughnessy*, p. 545.

CAMPHORA OFFICINARUM. BAUH. NEES.

SYN.

Laurus Camphora, *Linn.* Officinal Camphor tree.

A considerable tree of China, Formosa and Japan, growing straight below and branching out. It is a native of China principally near Chinchew in the province of Foken; also of Formosa and Japan. Mr. Williams states it is found in Kwang-si, Fuhkien, Formosa, and Cochin China, and affords both timber and gum for exportation and domestic use. The tree itself is large, furnishes excellent planks, beams, and boards, for ship building and for making trunks and other articles, and for the preparation of camphor, sawing of the timber, and the construction of trunks, articles of furniture, and vessels in whole or in part, occupy a great number of carpenters and shipwrights. Camphor-wood is valuable for the construction of chests and almirahs, as its powerful odour protects the contents from the ravages of white ants and other insects. Camphor is diffused through all parts of the plant, and is separated from the root, trunk, and branches, which when cut into chips, are boiled in water and then sublimed into inverted straw cones contained within earthen capitals. It is thus obtained in the form of *Crude Camphor*, chiefly from the province of Fokien and the opposite island of Formosa, but some of good quality is also procured from Japan. The Dutch exported from thence into Europe 310,520 lbs. in seven years. It is sometimes imported into Britain from Batavia.—*Williams' Middle Kingdom, Vol. II., page* 137. *O'Shaughnessy, page* 455.

CAMPHORA PORRECTA, LINN.

SYN.

A. parthenoxylon. *Nees.*
Laurus „ *Jack.*
„ pseudo sassafras, *Blain.*

A tree of Penang, Sumatra and Java, furnishing a strong wood, which is durable if kept dry.—*Voigt*; *Roxb.* ii. 708.

CAMPHOR LAUREL. Camphora officinarum.

CAMPHOR OF BAROS, See Camphor. Dryobalanops camphora.

CAMPHOR OIL, Kapur minyak, Malay, the liquid camphor of the Dryobalanops camphora tree.

CAMPHRE. FR. Camphor.

CAMPHOR-TREE. See Dryobalanops camphora. Laurus camphora.

CAMPHOR-WOOD of Sumatra is from the Dryobalanops camphora of which the wood is hard, compact and brownish-coloured. The fragrant, light coloured, soft wood of which the trunks and boxes of China are made, is supposed to be that of the Camphor tree of Japan, Laurus camphora, or Camphora officinalis. The Martaban Camphor-wood, Laurus Sassafras, is a very large tree, scattered sparsely throughout the Tennaserim provinces. Wallich wrote that it was very like Laurus glandulifera, which furnishes the sassafras and camphor-wood of Nepaul. The Karens call it the "tree galanga" from its fragrance.—*Holtz., Mason.*

CAMPHOR-WOOD-OIL. See Wood oil.

CAMPS, in India, are generally formed

when marching from one station to another, or in time of war.

CAMPORE RIVER, in lat. 0° 43′ N., long. 103° 8′ E.

CAM SING MOON, OR CUM SING MOON, a safe harbour in the Canton river, formed between the southern point of Keeow island, and a point of Macao island called Bluff Head. It was much frequented by opium vessels.—*Horsburgh.*

CAMTOZE, a tribe of the Kafir race. See Kush.

CAMULAPOOR, a town in India in long. 78° 45′ E., and lat. 11° 37′ N.

CAM-WOOD, a dye wood, from the Baphia nitida, of Africa, used in dyeing the bright red of English bandana handkerchiefs.

CANAAN, according to one authority, is from Chana, the ancient name of Phœnicia. According to another, Canaan or Palestine was so called after Canaan, the youngest son of Ham.

CANACUBYA, or CANOUJ, is one of the most ancient places in India ; it gave rise, and gives a name, to one of the greatest divisions of the brahmin class. Its capital was perhaps the wealthiest visited by the first mahomedan invaders, and its wars with the neighbouring state of Delhi contributed to accelerate the ruin of hindu independence. This kingdom appears in early time to have been called Panchala. It seems to have been a long, but narrow territory, extending on the east to Nepal (which it included), and on the west along the Chambal and Banas, as far as Ajmir. We know little else of its early history, except the Rajput writings and traditions collected by Colonel Tod, and the inscriptions examined by Professor Wilson, with those translated and discussed by Principal Mill. The former relate that it was taken from another hindu dynasty A. D. 470, by the Rathor rajputs, who retained it until its conquest by the mahomedans in A. D. 1193, when they withdrew to their present seats in Marwar. The identity of Canouj and Panchala is assumed in Menu II. 19. Its limits, as assigned in the "Maha Bharat," are made out by connecting notes (vol. iii. p. 135, vol. iv. p. 142,) in the "Oriental Magazine." These boundaries, enlarged a little on the south and on the west, are the same as those assigned by Colonel Tod to the same kingdom at the time of the mahomedan invasion.—*Elphinstone's History of India, Vol. I., p.* 402. See Canouj.

CANADA BALSAM. See Gums and Resins.

CANADA TURPENTINE. See Gums and Resins.

CANAGA. CAN. Dalbergia arborea.

CANAGA. TEL. Pongamia glabra.

CANALS in Asia. The great canal of the world is that of Suez, connecting the Red Sea with the Mediterranean. It was commenced 25th April 1859, the first ships passed through it in the year 1867, and it was formally opened for traffic in December 1869. It had occupied ten years of labour to bring it to that state, and cost to that period thirteen millions sterling = thirteen crores of rupees. Canals are said to have been excavated, says Sir H. Elliot, by Feroz Shah, and by Ali Mardan Khan, but the historians of Timur do not mention them, and Baber states that in the Hindustan province there were none. Markham, in his Embassy, however, (p. iv) asserts that the irrigating canals of Feroze and Shah Jehan have been restored and improved, after centuries of decay and disuse, and a canal for irrigation and navigation, the largest work of the kind in either the old or the new world, now passes through eight hundred miles of the former empire of the great Moguls.

The Ganges canal is amongst the greatest works of India. It commences from Hurdwar, passes over a low tract of country, is borne across the Salani river by an aqueduct of stone of fifteen arches, through the volume of another river, and beneath the bed of a third and was planned to re-enter the Ganges at Benares. The Salani aqueduct leaves a clear water way of 700 feet, and cost £300,000. The total cost of the canal is not less than two millions sterling. It takes about 75 per cent. of the water of the Ganges, whose volume, however, is not diminished. It traverses the Doab, and by countless branches, dykes and channels, irrigates almost every village throughout a tract of country upwards of eight hundred miles in length, and is supplied to every tiller on payment of a water tax. At Hurdwar, the pass through which it issues, at the lowest ebb, discharges about seven thousand cubic feet of water every second.

The Ganges canal was opened on the 8th April 1854. It commences at Hurdwar, as the river Ganges issues from the mountains, and runs through the country on the right bank of the river. It has many branches, one of which re-enters the Ganges at Cawnpore, and another joins the river Jumna. This canal is carried by a great viaduct over the river Salani. This viaduct is three miles long. It is of earth, and is protected by a wall of masonry and a bridge of fifteen arches, each of fifty feet of span. It now consists of 653 miles of main canal, and 2,968 miles of rajbuha, or distributing channels. It is divided into seven executive charges. The gross income for 1865-66 was Rs. 13,50,000;

that of the preceding year was Rs. 9,90,866. It is not certain whether a permanent dam on the Ganges at the headworks above Hurdwar is absolutely necessary; but instructions have been given for at least completing the plans of the work without delay. The net receipts, excluding enhancement of land revenue, have reached 3½ per cent. If the estimate formed by the committee respecting the enhanced land revenue be correct, the canal is already paying five per cent. on the capital laid out, and when completed, the entire length of the work will be nearly 900 miles, independent of the many hundred miles of distributing water courses and minor channels. It was opened on the 8th April 1864.

The "*Jumna canals*" commence where this river descends from the Himalaya, and irrigate the country on both sides of the river until they re join it again at Delhi. The main canal on the eastern side is 130 miles long, with 610 miles of branch channels. The gross income for the year was Rs. 4,44,004; that of the preceding year was Rs. 3,39,458, on which, therefore, there is was increase of 30 per cent. due to enhancement of water-rates from the 1st May 1865. As on the Ganges canal, the increase over 1864 65 was nearly 68 per cent.

The *Doon canals* comprise five small canals in the Dehra Doon, aggregating 56 miles in length and 10 miles of rajbuha. The gross income for the year was Rs. 28,692, that for the preceding year was Rs. 27,357; the increase was therefore about 6 per cent.

The *Rohilcund canals* consist of the *Bygool*, 180 miles; the *Kitcha* and *Dhora* water courses, 32 miles; the *Paha* canal, 13 miles long; and the unfinished *Kylas* canal. The gross income for the year is Rs. 26,586, the income of the preceding year was Rs. 42,173, a decrease due to the destruction of the Bhanpore masonry dam. In addition to the above there are two other canals, the Nuggeena and the Nehtore, which are under the immediate control of the Collector of Bijnour. The gross revenue from them was Rs. 4,544; the previous year it was Rs. 5,564, a falling off due partly to serious damage to the head works of the Nehtore canal.

Agra Irrigation Works consist of the Futtehpore Seekree Reservoir and of the channels led therefrom.

The Humeerpore nad Jhansi Irrigation Works consist of lakes and reservoirs, partly natural, partly artificial, and are under the direct control of the Civil Authorities.—*Ann. Ind. Adm. Vol. XI., p.* 196.

The canal from the Sutlej to the Ganges was formed by the emperor Feroz Toghaluq, who ruled from A. D. 1351 to A. D. 1385, when he abdicated in favor of his son, who proved unworthy, and then to his grandson. In the Multan district there are no less than fifteen canals, of an aggregate length of 325 miles, the largest of which are from six to seven feet deep, and from twenty to thirty feet wide, and the smallest from two to five feet deep, and from six to ten feet wide.

In the Punjab, the inundation canals are fed from the river when swollen by the melting of the snows. They comprise 2109 miles of channel, and they are empty in the cold weather. The principal permament canal is that of the Baree Doab, with a central line of 247 miles and 219 miles of branches. It was opened on the 11th April 1859. The Eastern Narra canal in Sind was re-opened on the 7th May 1859.

In Madras are innumerable tanks or artificial lakes of various sizes formed in basins; that near Cummum being seven miles in circumference. The most northern of its rivers, the Godavery, at Rajahmundry, when about fifty-five miles from the sea, divides into two streams forming a delta of rich alluvial country. A little above this point the river is 2,000 yards broad, but it soon expands at Dowlaishwaram into a width of three times that extent, parted, however, by islands, into four branches. An anicut has there been thrown across the channel, the united lengths of the four dams being 3,955 yards. Upwards of two miles of stream is blocked up by a solid well protected mass of stone, in lime cement, with a breadth at the base of nearly 130 feet, and a height of twelve feet above the natural surface of the water. Along the left bank of the river. is one channel; another to Cocanada, and other channels, the total being 840 miles of main channel, irrigating 780,000 acres of land.

At Baizwarah, sixty miles from the sea, an anicut or dam 1,250 yards long, with a base of 305 feet, has been thrown across the Kistnah river, and its channels irrigate the Guntoor and Masulipatam districts, and when completed it is estimated that 290 miles of channel will exist. The Pennar anicut, 520 yards long, was finished in 1861. Across theColeroon river, (the northern branch of the Cauvery river) about 1,600 years ago, was constructed a famed anicut, the channels from which feed the Tanjore and Trichinopoly districts. It is 360 yards long, fifty feet broad and fifteen deep. But in 1836, it was modified.

The East Coast Canal from Madras to Sadras, is for traffic.

Canals, as water courses for cultivation, have only since 1862 been in progress in the Bombay Presidency. A weir of 1,550 feet has been thrown across the Girna river, in Khandesh, and one across the Panjur, In Sultanah a weir, 2,000 feet long, has been drawn across the Kistnah, to feed channels 45 miles long, and a large tank has been formed at Koorgaum near Barsec.

In Sind, cultivation is carried on by a network of irrigating channels leading water from the Indus river during its rise all over the face of the country. These are of ancient date, but since 1856 trunk channels have been dug from parts of the banks which were permanent. These run parallel to the course of the river, and carry a supply from the river when it is at its lowest level, cutting across and supplying the ancient channels; and under Sir Bartle Frere's administration, the ancient channel of the Narra, 120 miles long, was re-opened on the 7th May 1867, to distribute water over the vast plain of Meerpore. Canals of the Ganges, Jumna and Baree Doab have but given a profit of 5 per cent. Col. Cotton says, that the average return on all the new irrigation works in the Madras Presidency for the last fourteen years, is seventy per cent. per annum. Many of these canals are of sufficient size for navigation. *Indian Annals. Markham's Embassy, p.* 4. *Powell's Hand-book. Annl. Idn. Adm., Vol. XI., p.* 197. *Report on the Administration of the Punjab. Powell's Handbook, Econ. Prod. Punjab, p.* 206. See Irrigation.

CANALLE KUROONU. SINGH. Cinnamon.

CANAMO. SP. Hemp.

CANNANORE, a seaport town in India in long. 75° 26′ E., and lat. 11° 54′ N., known to the natives by the name of Kouryal-bandar. Proceeding along the sea coast, says Bartolomeo, you then arrive at Cannanore, a town with a castle, and subject to the government of queen Collatiri, by the Europeans called Collastri. This city is of great antiquity, and the king of Collatiri belongs to the first class of the Indian princes." * * * The capital of the kingdom of Cannanore, called also Colanada, lies in the latitude of 11° 50′, and is distinguished by the same name. The whole surrounding district, which extends towards the north as far as Mount Delly, is inhabited by the Molandi, who live merely by piracy. These sea-robbers are mentioned by Pliny, Arrian, Ptolemy, and other ancient authors. They unite themselves to other pirates who reside on the Angedib islands, near Goa, and capture all the small vessels which sail from Goa to Cochin. The huts in which their wives and children live, stand on the eastern side of Mount Delly. This mountain, which forms a cape or head-land, lies in the latitude of 12° 5′; and here Malabar or Malayala, properly so called, ends." Cannanore is now in British territory held by a body of European and native soldiers; it is a place of large trade.—*Voyage to E. Indies.*

CANA OF GALILEE, 6 miles from Nazareth, is a poor small village. Its fountain, the christians of Palestine say, has the purest and best water in the world. The road to Tiberias is full of interest. The mount of beatitudes, whence our Saviour delivered his sermon is near. It stands very little above a green plain of the stillest possible appearance.—*Skinner's Overland Journey, Vol. I., p.* 281.

CANAPE. IT. Hemp. Canvas. Cannabis sativa.

CANARA, a narrow strip of land, about 20 to 40 miles broad, extending for about 200 miles, lying between the Western Ghats and the sea. It is usually divided into North and South Canara, and the three eastern talooks of North Canara, being on the higher land on the eastern side of the ghats, are known as the Balaghat, in distinction to the Payen-ghat, below the ghat. Canara Balaghat is well wooded. North Canara has been transferred to the Bombay Presidency. Canara lies between the rivers Alega and Cangrecora. The bulk of the people of Canara follow one or other of the hindu sects, and some of them follow the rule of Maruma-ka-tayam, or descent from mothers, the descensus ab utero of the Locrians, who drove the Sicilians out of that part of Italy. The forests of N. Canara continue to furnish large quantities of the best timber produced in Southern India. In 1837, Col. Frith gave a list of 29 woods of Canara. In 1865 6, Dr. Gibson gave a list of 164 timber trees and fancy woods of Canara and Soonda, with scientific, Canarese and Mahratta names. It is as follows, and the descriptions will be found alphabetically arranged.

Acacia arabica.
,, amara.
,, catechu.
,, Farnesiana.
,, leucophlœa.
,, odoratissima.
,, speciosa.
,, sundra.
Ægle marmelos.
Ailanthus excelsa.
Alangium decapetalum.
Alstonia scholaris.
Antidesma alexiteria.
Artocarpus hirsuta.
,, integrifolia.
Atlantia monophylla.
Azadirachta Indica.
Balanites Ægyptiaca.
Bassia latifolia.
,, longifolia.
Bauhinia acuminata.
,, parviflora.
,, variegata.
Bignonia Indica.
Bignonia quadrilocularis.
,, undulata.
,, xylocarpa.
Bombax Malabaricum.
Borassus flabelliformis.
Briedelia spinosa.
Buchanania latifolia.
Butea frondosa.
Cæsalpinia sappan.
Calophyllum inophyllum
Canthium nitens.
.. parviflorum.
Capparis divaricata.
,, grandis.
Carallia integrifolia.
Careya arborea.
Caryota urens.
Casearia elliptica.
Cassia fistula.
Celastrus montana.
Cedrela toona.
Cluytea collina.
Chickrassia tabularis.
Chloroxylon Swietenia.

Chrysophyllum acuminatum.
Cinnamomum iners.
Conocarpus latifolia.
Cordia Rothii.
Cratæva Roxburghii.
Cupania canescens.
Cullenia excelsa.
Dalbergia latifolia.
„ Oojienensis.
paniculata.
„ sissoides.
Dichrostachys cinerea.
Dillenia pentagyna.
Diospyros cordifolia.
„ melanoxylon.
„ montana.
Ehretia ovalifolia.
Elædendron Roxburghii
Eriodendron aufractuosum.
Erythrina Indica.
Erythrina suberosa.
Eugenia caryophyllata.
„ jambolana.
Euphorbia tirucalli.
Euonymus garcinifolia.
Feronia elephantum.
Ficus t'siela.
Flacourtia montana.
Gardenia turgida.
„ montana.
Garcinia glutinifera.
Garuga pinnata.
Givottia Rottleriformis.
Gmelina arborea.
„ Asiatica
Grewia tiliæfolia.
Guatteria cerasoides.
Hardwickia binata.
Holarrhena.
Hyduocarpus inebrians.
Hymenodyction obovatum.
Hymenodyction utile.
Inga xylocarpa.
Ixora parviflora.
Jambosa salicifolia.
Lagerstræmia microcarpa.
Lagerstræmia reginæ.
Limonia alata.
Mangifera Indica.
Melia azadirachta.
„ bukayun.
„ superba.
Memecylon tinctorium.
Mesua ferrea.
Michelia Niligirica.
Michelia champaca.
Mimusops elengi.
„ hexandra.
Morinda citrifolia.
Myristica cinerea.
Nauclea cordifolia.
„ parviflora.
Nephelium longanum.
Nerium antidysentericum
Odina woodier.
Olea dioica.
Pentaptera arjuna.
Phyllanthus emblica.
Pongamia glabra.
Premna integrifolia.
„ tomentosa
Prosopis spicigera.
Pterocarpus marsupium.
Pterocarpus santalinus.
Putranjiva Roxburghii.
Randia dumetorum.
Rhus buckiamela.
Rottlera tinctoria.
Salvadora Persica.
Santalum album.
Sapindus emarginatus.
Schleichera trijuga.
Semecarpus anacardium.
Sethia Indica.
Soymida febrifuga.
Spondias acuminata.
Spathodea arcuata.
Sterculia balanghas.
„ fœtida.
„ urens.
Stereospermum chelonoides.
„ suaveolens.
Strychnos nux vomica.
„ potatorum.
Symplocos racemosa.
Swietenia febrifuga.
Tamarindus Indica.
Tectona grandis.
Terminalia alata.
belerica.
catapa.
Berryi.
chebula.
glabra.
Thespesia populnea.
Trophis aspera.
Ulmus integrifolia.
Vitex altissima.
Wrightia tinctoria.
Zizyphus glabrata.
jujuba.
œnoplia.
xylocarpa.

In South Canara, the jungles bear no comparison to those of Malabar or North Canara, where there are large tracts of forest uninhabited. In South Canara, the jungles are thickly populated by farmers; there are several lines of good forest which are called merchi wurg (Pepper wurg), and the ryot pays a beriz on the wurg of five pie per pepper vine. When the koomki land and merchi wurgs are separated, there is but little of Government jungles left, and on his little, ripè trees are few and scattered.—*Dr. Gibson, Mad. Cat. Ex. of 1862; Rep. Con. For. of* 1862, *p.* 30. *Madras Conservator's Report*, *p.* 3. *M. E. Jur. Report.* See Aka Podwal, India, p. 324; Kerala; Mahratta Governments, Polyandra, page 108-9.

CANARIUM, a genus of plants of the natural order Burseraceæ, of which Voigt mentions five species, C. Bengalense, commune, nigrum, strictum and sylvestre. Wight says the resinous juice of the Canarium commune has properties similar to Copaiva, while the kernels of the seed afford by expression a bland edible oil. The Canarium strictum of Roxburgh is known in Malabar under the name of the "black dammer tree," in contra-distinction to the Vateria, which is the "white dammer tree." This tree is rather common in the alpine forests about Courtallum in the Tinnevelly district, and is regularly rented there for the sake of its dammer. The dammer is transparent, and of a deep brownish yellow or amber color when held between the eye and the light, but when adhering to the tree has a bright shining black appearance. The fruit is a very hard, three-celled oval nut, tapering at each end.

Under the names Dhoop and Googul, **Can.** **Mahr.**, Dr. Gibson mentions two species of Canarium, in Canara and Sunda, one on the ghats above, and the second species of great size seems to be cultivated near Bilgil, and at Siddapore. The choice gum resin afforded by these trees is extensively used in the arts, and exported both inland and to the coast.—*Wight. Ill. Dr. Gibson.* See Resins.

CANARIUM BALSAMIFERUM. **Willde.** Syn. of Boswellia glabra.

CANARIUM BENGALENSE. **Roxb.** An immense forest tree of Assam, Sylhet and the adjacent mountainous countries, flowering in May and June. From fissures or wounds in the bark, a large quantity of very pure, clear, amber coloured resin exudes, which soon becomes hard and brittle, and is not unlike copal. But in the Calcutta bazar it was only valued at from 2 to 3 Rs. for seven maunds of eighty pounds each. Native name of the resin. Wood not known.—*O'Shaughnessy, p.* 285. *Voigt, p.* 149. *Roxb.* iii, 136. *Royle's Him. Bot.* p. 177.

CANARIUM COMMUNE, **Linn**; *D. C. W. & A.*; *Kœn*; *Roxb.*

Canarium mehenbethene, *Gært.*
Amyris Zeylanica, *Retz.*
Balsamodendron Zeylanicum, *Kunth.*
Colophonia Mauritiana, D. C.
Bursera paniculata, *Lam.*, *Rumph.*

Java Almond.	**Eng.**	Jungli Badam.	**Hind.**
Bois de Colophane.	**Fr.**		

Grows in the Mauritius, Ceylon, the Peninsula of India, the Moluccas, and the Indian Archipelago. It was brought from the Moluccas to the Calcutta Botanic garden, but in Roxburgh's time did not thrive, owing to the coldness of the winter months. The bark yields

an abundance of limpid oil with a pungent turpentine smell, congealing into a buttery camphoraceous mass. It has the same properties as balsam of copaiba for which it could be substituted ; and is said to yield East Indian elemi. Its nuts are three-cornered and edible, but apt to produce diarrhœa.—*Roxb* iii. 177. *Dr. O'Shaughnessy, p.* 258. *Voigt,* 148-9

CANARIUM GENICULATUM. This is a large and valuable timber tree found in the Pegu valley, but it is scarce. Wood white colored, adapted to every purpose of house-building.—*McClelland.*

CANARIUM HIRSUTUM. Syn. of Boswellia thurifera.

CANARIUM MEHENBENTHENE. GÆRT. Syn. of Canarium commune.

CANARIUM NIGRUM, ROXB.

Marignia acutifolia, *D. C.*
Dammara nigra, *Rumph.*

A tree of Amboyna and the Moluccas ; a reddish soft viscid heavy-smelling substance exudes from wounds in its bark.—*Voigt,* 149.

CANARIUM ODORIFERUM. Syn. of Boswellia thurifera.

CANARIUM STRICTUM. ROXB. iii. 138.

SYN.

Dammara nigra legitima, *Rumph.*
Dhoop of Bhore Ghat

Black Dammer Tree	ENG	Thelli mara.	MALEAL.
Canari.	MALAY.	Kongilam maram.	TAM.

This is the Black Dammer tree of Tinnevelly and Malabar, and is so named in contradistinction to the Vateria Indica, which is called the white dammer tree. The Canarium strictum is common near Courtallum, where it is rented for its dammer. While adherent to the tree, it gives a bright shining black tint, but by translucent light, is of a deep brownish yellow or amber colour. The balsam exudes in a very fluid state and trickles down the trunk where it gradually hardens by exposure to the sun, the fresh resin continuing to flow over that already hardened, gives the stalactytic appearance of the huge lumps of resin in which form the resin is brought in the market. It is perfectly homogeneous, has a vitreous fracture. It is insoluble in cold, but partially soluble in boiling alcohol on the addition of camphor; when powdered, it is readily soluble in oil of turpentine. Powdered and burnt on the fire, it emits a more resinous smell, and burns with more smoke than white dammer. The size of the lumps of this resin, together with its color and the peculiarity of shape already mentioned, suffice to distinguish it from other Indian resins.—*M. E. J. R. Voigt.* 149. *Roxb.* iii. 138.

CANARIUM SYLVESTRE, GÆRTN.

C. Sylvestre alterum, *Rumph.*
Schinus Bengalensis.

A tree of Chittagong and Assam. Timber hard, tough, and close grained, used for furniture.

CANARIUM ZEYLANICUM, BLUME.

SYN.

C. Balsamiferum. MOON. | Kakoona-gass. SINGH

Occupies the warm, moister parts of Ceylon, up to an elevation of 1,500 feet. A resinous balsam exudes copiously from the trunk of this tree, which, mixed with paddy chaff, is used by the natives for burning, as the smoke drives away snakes from the domicile.—*Thw. Enum. P. Zeyl. I., p.* 79.

CANASTAS. PORT. SP. Baskets.

CANASTOS, SP. Baskets.

CANAVALIA, a genus of plants of the natural order Fabaceæ.

CANAVALIA GLADIATA. D. CAND. *Roxb. ; W. and A.*

SYN.

Dolichos gladiatus, *Jacq.* ; *Roxb.* iii. 300.
„ ensiformis. *Lour.*

Mekhun.	BENG.	Safed Kadasambal.	HIND.
Makhum shim ?	„	Shimlee.	SANS.
Makshun-shun.	„	Thambatin.	TAM.
Pai-noung-nee.	BURM.	Segapu Thambatin ?	
Sabre-podded Canavalia.	ENG.	Tamma.	TEL.
		Chama ?	„
Sword Bean.	„	Segapu ? Vela and Yerra Tambatiu.	„
Lal Kadsambal.	HIND.		

This plant has four varieties, viz :

a. flowers and seeds red.
b. „ white, seeds red.
c. „ and seeds white.
d. „ red, seeds grey.

the three first of these are cultivated for their large sword-like pods : that with the white flowers and white seeds is considered the best, and is often two feet long. It is esteemed by Europeans.—*Voigt. Mason.*

CANAVALIA OBTUSIFOLIA, *D. C.*

Koyli avari. *Tam.*

Is a common plant on the Coromandel coast, where it occurs along with the Ipomæa pes-capræ, and is a useful binder of the loose sand. —*Cleghorn.*

CANAVALIA VIROSA, *W. & A.*

SYN.

Dolichos virosa, *Roxb., Rheede.*

Kalo Shim.	BENG.	Wild sword-bean.	ENG.
Kat Shim	„	Adavi chamma.	TEL.
Kudsumbar of	BOMBAY.	Karu chamma.	„

Grows on the Coromandel and Concan coast, and on the sea shore of the Tenasserim provinces, in great profusion.—*Mason.*

CANCANEE. TAG. Sun.

CANCELLARIA, a genus of molluscs. See Mollusca.

CANCER, the crab, a genus of crustaceæ of the family Canceridæ, several of which occur in southern and eastern Asia. See Carpilius; Gecarcinus; Rupellia.

CANCER CARNIFEX. Syn. of Gecarcinus carnifex.

CANCER CORALLINUS. FABR. Syn. of Carpilius corallinus.

CANCER HYDROMUS. Syn. of Gecarcinus carnifex.

CANCER MACULATUS. Syn. of Carpilius maculatus.

CANCER PAGURUS.

Daria ka kenkra.	DUKH.	Kaddel Nandoo.	TAM.
Katan.	MALAY.	Samudra-pu-Nanda kaya.	TEL.

Ainslie Mat. Med. p. 156.

CANCER TENAX. Syn. of Rupellia tenax.

CANCHI, the Tamul name of Conjeveram.

CANCHI PANDU. TEL. Solanum nigrum.

CANCHORI VER. TAM. Tragia involucrata.

CANDAHAR, a town in Afganistan in L. 66° 26' E. and L. 32° 20' N. 3,480 feet above the sea. It is the Khenta of the Vendidad, supposed to be derived from Khandan to laugh, and har, a necklace, a pleasant land. Shah Jehan's expenditure was great in his expeditions to Candahar, his wars in Balkh, and in maintaining a regular army of 200,000 horse, but he left a treasure estimated by Bernier and by Khafi Khan, from 6 to 24 millions sterling, and a vast quantity of gold and silver jewels.—*Bunsen*, iii. 484. See Afghan, Cabool, Khyber, Punjab. See Kandahar.

CANDALLA, in L. 20° 3' N. and L. 74° 49' E. in the Dekhan, N. W. of Aurangabad. The entrance to the caves of Candallah is 1932 feet above the sea.—*Wils. Schl.* See Kandalla.

CANDARUM ROXBURGHII. SCHOTT. Syn. of Amorphophallus campanulatus.

CANDELA. LAT. Candles.

CANDELARIA, or candle-fly, is found in Labuan and Sarawak. It has a curved and pointed head. It frequents the tops of lofty trees. The origin of the name is not known.

CANDELE, IT. Candles.

CANDESH was formed into a State in the 14th century but was always dependent on the neighbouring kingdoms.—See Kandesh.

CANDLES, ENG.

Kaarzen,	DUT.	Diyan,	MALAY.
Chandelle,	FR.	Lilin,	,,
Kerzen,	GER.	Kandil,	,,
Lichter,	,,	Velas,	PORT. SP.
Butti,	GUZ. HIND.	Swjetschi,	RUS.
Candelle,	IT.	Vatti,	TAM. TEL.
Candela,	LAT.		

Almost all the candles in use in British India, are imported from Europe and America. The natives use oil lamps, of various shapes, often of metal fixed on an iron spike which they stick into the ground. Wax and tallow candles are made in several parts of India; in Vizagapatam, Goa, Malabar, Patna, Calcutta, Peddapore and Burhampore; but the large importations of candles from Europe have caused the manufacture to decline considerably. It is a great improvement to place two thin instead of one thick wick in each, and the wicks should be plaited not twisted. Wax candles improve with age. The candles used in Japan are made of an oil said to be pressed out of the seeds of the Rhus succedanea? This oil becomes, when concrete, of the consistence of tallow, and is not so hard as wax. The province of Fetsigo, more particularly, produces this tree, and consequently supplies the greatest quantity of this oil. In the eastern parts of China, the product of the tallow tree, Stillingia sebifera, and beef and hog's tallow in the south, are used in the manufacture of candles. Wax is only employed to incase the tallow or lard, which, from the heat of the climate and its unclarified condition, never becomes hard *Royle Arts &c. of India, page* 484. *Thanberg's Travels, Vol.* iii. *p.* 188. *Rhode MSS.*

CANDLESTICKS, ENG.

Kandelaars.	DUT.	Candellieri.	IT.
Chandeliers.	FR.	Podsweschnikii.	RUS.
Leuchter.	GERM.	Candeleros.	SP.

Candlesticks are in general use in the East Indies, but to shield from the wind are usually covered with glass "shades," and this is the name usually given to them.

CANDLE-TREE. The nuts of the candle-nut tree, Aleurites triloba, are strung together and used for candles. Torches are also made from the candle wood of Demerara.

CANDY, ENG.

Sugar Candy.	ENG.	Nabhat.	PERS.
Kurri-shakur.	GUZ. HIN.	Kal-kandu.	TAM.
Gula batu.	MALAY.	Kala kanda.	TEL.
Batu.	,,		

Crystallised sugar, at one time largely imported into India from China, but now made in many parts of India.

CANDY, a measure of weight equal to 500 lbs. in some places, but it varies in different towns.

CANDY, a town in Ceylon, taken by the British on the 19th July 1819.

CANE, or Kian, a river of Banda.

CANES.

Nathur.	GUZ.	Bed.	PERS.
Bet.	HIND.	Perambugal.	TAM.
Rotan.	MALAY.	Bettamulu.	TEL.

Canes are the produce of the Calamus genus of palms, the species of which are numerous in the Islands of the Indian Archipelago, in the Malayan Peninsula, in the

Madras territories, in the forests of the districts of Chittagong, Silhet, and Assam, along the foot of the Himalayas as far north as the Deyra Doon, where a species is found which the late Mr. Griffith named *C. Royleanus*, and he applied the name of *C. Roxburghii* to the plant which Dr. Roxburgh called *C. Rotang*, common in Bengal and on the Coromandel Coast. Both are used for all the ordinary purposes of cane; as, also, are C. tenuis of Assam, C. gracilis, C. extensus, and others. But those of the shops are gathered indiscriminately; and it is not possible to say from what particular species they come. C. rotang has however been said to furnish the stouter, and C. Scipionum the slenderer sorts. Mr. Griffith considered C. Scipionum of Loureiro to be the species which yields the well known Malacca Cane, but the plant does not appear about Malacca and the canes are stated to be imported from Siak, on the opposite coast of Sumatra. Even this does not, however, seem to be correct, as the Malacca Committee for the Exhibition of 1862 sent Malacca canes, as cut from the jungle, previous to being subjected to the process of smoking which gives the cane the rich brown tint so much admired in Europe. The stem of Calamus verus is described as being 100 feet long, that of C. oblongus 300 to 400 feet, of C. rudentum upwards of 500 feet, and of C. extensus as much as 600 feet. Rumphius even states that one kind attains the extraordinary length of 1200 feet (vol. v. 100). In the Tenasserim Provinces, there are numerous species indigenous in the forest, and the Karens have different names for seventeen species or varieties used extensively instead of cordage. The stays of the masts in native boats are usually made of rattans, and they are split up into strings for the innumerable purposes to which cord and twine are usually applied. All that gives stability to bamboo houses, is the ratan which ties them together. The Calamus rudentum of Loureiro is manufactured at Malacca into cables, and is employed for dragging great weights and binding wild elephants. A cane bridge over the Temishang in the Khassia hills is 312 feet long and 50 feet above the river. It oscillates greatly.—*Mason's Tenasserim*; *Royle, Ill. Him. Bot.*: *Royle Fib. Pl.*: *Cat. Ex.* 1862. See Calamus.

CANELLA, It. Port. Sp. Cinnamon.

CANEVAZZA, also LONA, It. Canvass.

CANFORA, It. Camphor.

CANGUE, a wooden yoke, by which Chinese criminals are punished and are led about the streets as a spectacle to the people. It consists of two large pieces of wood fitting into each other and having one to three openings, through which the head and one or both hands are drawn, according to the greatness of the crime. Such a yoke weighs from lbs. 50 to lbs. 100, and presses so heavily upon the back and shoulder that the criminal is unable to feed himself, and must wait till some compassionate person lifts the food to his mouth. Such punishment is inflicted for periods varying from a few days to several months, and in the latter case it is almost always fatal. This instrument of torture makes a man resemble the foot of a huge heavy table.—*Sinnett's Lady's Voyage*, p. 49; *Huc, Chinese Empire*, vol. I. p. 272.

CANGRECORA, a river, on the southern boundary of Canara.

CANGOO, Tam. A Tinnevelly wood of a whitish brown colour. Used for hand-spikes and wheelwright's work.—*Col. Frith.*

CANHOES, Port. Cannons.

CANIATCHI. Cani 'land,' and atchi, 'heritage,' in the south of India, land property. Tod thinks the "atchi" like the *ote* and *awut*, Rajpoot terminations, implies clanship.—*Tod's Rajasthan*, vol. I., p. 496.

CANIFS, Fr. Penknives.

CANINO, Prince of, a learned ornithologist: a relative of the Bonaparte family.

CANIS, Lat. a genus of mammal animals, of which the common dog, Canis familiaris and its many varieties; the wolf, Canis lupus, and the jackal, Canis aureus, occur in India. The wild dogs of India have been removed to the genus Cuon. The following have at times been noticed under Canis.

Canis ægypticus, Canis cauda, Canis dukhunensis, Canis familiaris borealis, Canis familiaris lagopus, Canis himalaicus, Canis hyæna, Canis mexicanus, Canis pallipes of Sykes, Canis pictus, Canis primævus, Canis quao sumatrensis, Canis sumatrensis, Canis thous.

CANIS AUREUS, Linn.

Canis aureus Indicus, *Hodgson.*
Lupus aureus, *Kæmpfer.*

Nari	Can.	Kola	Mahr.
Shighal	Duk.	Shighal	Pers.
Jackhals	Dut.	Srigala	Sansc.
Jackal	Eng.		

The jackal is found in a great part of Asia, Syria, Arabia, Persia, and in all India west of the Brahmaputra. Along the line of the Ganges, in lower Bengal, they move in packs and eat indiscriminately. In the Peninsula, they are of larger size, and seen singly or in pairs, and in the Dekhan, live much on wild fruits, the coffee bean of the plantations is largely eaten by them. Their cry when moving at night is very disagreeable, and even when clicketing their call is unpleasant.—*Cat. of Mammalia.* See Mammalia.

CANIS FAMILIARIS, Linn.

C. familiaris, var. Indica.

Pariah Dog.	Brinjara Dog.
Polygar Dog.	Tibetan Mastiff.

The Brinjara dog is a large powerful animal, in shape and with limbs somewhat resembling the Persian grey-hound, only much more powerful. The breed seems, however, to be disappearing from amongst the brinjara tandas, and replaced by the ordinary pariah. In 1868, we met a great tanda on the march at Adjunta, but only pariah dogs amongst them. Indeed between the brinjara dog and many of the pariah dogs there is so great a resemblance as to impress with the belief that they are the same race. In many villages are pariah dogs in no way distinguishable from the brinjara. The large brinjara dog is an eager hunter of the larger game, a faithful, intelligent, and good watch dog, but does not crave attention. The Poligar dog is large and powerful, and is peculiar in being without hair. The Beder race of Zorapore and Ghurghunta hunt the wild boar with a large powerful breed of dogs. A peculiar breed is raised by the rajah of Rampore, seemingly between the Persian grey hound and the Tibetan mastiff. The Tibetans have a mastiff, a terrier and a poodle, and the two last are pets, and the poodle is often fed for the table. The Chinese dogs from Japan, the original of the King Charles Spaniel, is sometimes seen in India. The C. Ægyptius, C. cauda, C. Dukhunensis, do not need separate remark.

CANIS LUPUS. Linn.

C. Palipes, *Sykes.*

Tola	Can.	Landga	Hind.
Wolf	Eng.	Bherija	„
Indian wolf	„		

The wolf roams in Central and Southern India, they are never seen singly, but always in large or small packs. If a single one appear, it may be assumed that others of the pack are near. They are bold, even in the vicinity of towns, scarcely moving off from a horseman, and in Central India, Oudh and the Punjab, they destroy large numbers of children. Their ordinary prey are deer, sheep, and in pursuit, they display great sagacity, throwing out flanking parties and surrounding games. Recently we witnessed a sambur run close up to a railway train in Berar, halt as the train moved on, and it then fled off at speed: looking beyond, a body of wolves were seen in pursuit.

CANIS ? In Penang, a large tree; used for door frames.—*Col. Frith.*

CANJARA, Tamil. Malayala. A tree which grows to about two feet and a half in diameter, and from twenty-five to thirty high, of little use or durability. The natives value its fruit, which is very intoxicating, and used by them as a medicine.—*Edye. M. and C.*

CANJARA. Sans. Daucu carota.

CANJAROTE POOYA, a river which formed originally the southern boundary of Canara, separating it from Travancore. See Keerala Cangrecora.

CANMORTA, one of the Nicobar Islands.

CANNA, a genus of flowering plants, of the order Marantaceæ, of which the C. Indica, or Indian shot, is one, but there are many, species. Voigt enumerates sixteen as having been in the Calcutta gardens, also C. edulis of Peru and C. lagunensis of Mexico.

CANNA CHINENSIS. Willde. Syn. of Canna indica.—*Linn.*

CANNA INDICA, Linn. *Roxb. Rheede.*

Canna orientalis, *Roxb.* | Canna Chinensis, *Willde.*

Surbo jaya	Beng.	Katu Balu.	Maleal.
Bud-da-tha-ra-na.	Burm.	Silarumba.	Sans.
Ukkilbarke munke.	Duk.	Kundamani cheddi.	Tam.
Indian Shot.	Eng.	Kull valei manni.	„
Bead seed plant.	„	Guri Genza chettu.	Tel.
Sabba jaya.	Hind.	Krishna tamara	„

The Seeds.

Kull valei munnei.	Tam.	Sabba jaya.	Hind.
Ukkilbarke munke	Duk.	Seelarumba.	Sans.

There are several varieties of this, the colours of the flowers scarlet, orange, red and yellow mixed. Varieties are often seen in gardens, and much cultivated by the Burmese for the seeds, which they use for sacred beads. —*Mason. Ains. Mat. Med.* 142. *Riddell.* See Arrow Root.

CANNABIS INDICA. Rumph. Syn. of Cannabis sativa. See Hemp, Hemp Seed.

CANNABIS ORIENTALIS. Roxb. Syn. of Cannabis sativa. *Linn.*

CANNABIS SATIVA. Linn., *Roxb., Rheede.*

Cannabis Indica *Rumph.* | Cannabis orientalis *Roxb.*

Kinnub.	Ar.	Ganja.	Malay.
Ganja.	Beng. Duk. Tam.	Lacki-lacki.	„
Bin.	Burm.	Jeru Kansjava.	„
Ben.	„	Bhang.	Pers.
Hinnup, Kinnup.	Dut.	Bhanga.	Sans.
Hemp.	Eng.	Ganjika.	„
Indian hemp.	„	Vijya.	„
Hanf.	Ger.	Mat-kansha.	Singh.
Kannabis.	Gr.	Ganjayi.	Tel.
Ganja.	Hind.	Kinnabis.	Yunani.
Bhang.	„	Defrunoos.	„

The hemp plant is grown in Persia, Syria, Arabia, and throughout India. In some places for its fibre; in others, and, generally, for its intoxicating products. In Kangra and the Punjab, it grows spontaneously, and in abundance everywhere in the submontane tracts in the Sutlej valley, between Rampur and Sungnam, at an elevation of 3,000 to 7,000 feet, but is cultivated for the fibre only in the eastern portions of Kangra, and in the Simla Hills. In 1859, an experimental consignment of two tons of Himalayan hemp was valued in the English market at from 30*l*. to 32*l*. per ton. The price at Lahore is about 15*l*. or 16*l*. per ton. Of the intoxicating products,

Charras is the concreted resinous exudation from the leaves, slender stems, and flowers, collected in the Himalaya, Yarkand and Herat.

Ganjah, the dried hemp plant which has flowered, and from which the resin has not been removed ; also the whole plant.

Bang, and *Subza* and *Sidhi*, the larger leaves and capsules without the stalks.—*Royle Materia Medica. O'Shaughnessy*, p. 852. *Powell Handbook. Cleghorn Panj. Rept*. p. 66.

CANNEH of Scripture, (Ezekiel xxvii. 21 to 23.) the Cane Emporium of the Romans, is the modern Makulla. The inspired writer speaking of Tyre, says "Arabia, and all the princes of Kedar, they occupied with thee, in lambs and rams and goats : in these were thy merchants. The merchants of Shebah and Raamah, they were thy merchants : they occupied in thy fairs with chief of all spices, and with all precious stones and gold. Haran, and Canneh and Eden, the merchants of Shebah, Asshur and Chilmad, were thy merchants."

CANNEL COAL. See Coal.

CANNELLE. Fr. Cinnamon.

CANNER-KA-JHAR. Duk. Nerium odoratum.

CANNING. Charles John Canning was born at Gloucester Lodge, Brompton, in 1812. He was the third son of the celebrated George Canning, and was educated at Christ Church, Oxford. Lord Dalhousie was Governor General of India from the beginning of 1848 Lord Canning succeeded him early in 1856. Lord Canning entered upon public life in 1836, as member for Warwickshire. In the following year his mother died, and he went to the Upper House. When Sir R. Peel came into power, in 1841, he was appointed Under Secretary for Foreign Affairs. He held this post till 1846, in spite of the inconvenience of having both the Secretary and the Under-Secretary of the same department in the House of Lords. For a month or two, in the reconstructed Ministry of Sir Robert Peel, Lord Canning was Chief Commissioner of Woods and Forests ; but in July, 1846, he resigned with his party, and declining high office at the hands of Lord Derby, returned with the Coalition Ministry in 1853. In the Government of Lord Aberdeen Lord Canning was Postmaster-General, and distinguished himself by his administrative capacity. He worked very hard, made many changes in the internal organization of the department, and set on foot the practice of submitting annually to Parliament a report of the work, and especially the progress, achieved by the Post-office. He held the same appointment for a short time in Lord Palmerston's Cabinet, but it became necessary, as the year 1855 wore on, to select a successor to Lord Dalhousie, and none seemed so fit to send out as his college friend Lord Canning. The Governor-Generalship was the destined prize of which his father had been baulked, for he had received the appointment, and was on the eve of starting for India, when Lord Castlereagh committed suicide, and the Foreign-office was left without a head. George Canning, a comparatively poor man, gave up the chances of acquiring a fortune in the splendid post of Viceroy, in order to win a name for himself at home, and perhaps to reach the Premiership. Both of these objects were attained, but he died in the effort. His son, Lord Canning, began his rule in India on the last day of February, 1856, and had scarcely taken his place, when in 1857, the army of Bengal revolted and much of northern India rebelled, under the guidance of Nana Rao of Cawnpore, and of the emperor of Dehli. The years 1857, 1858, 1859, 1860, and 1861, were employed in destroying the mutineers, and suppressing the mutiny, in which he displayed great boldness and self reliance, and when the embers of the insurrection alone remained, he was the first to urge clemency. During his administration several servants of Government, Sir John Lawrence, Sir Colin Campbell, Sir Nevil Chamberlain, Colonel Balfour, Sir Hugh Rose, Sir Robert Napier, Sir Hope Grant, by their labours in war and in peace did the state service and won higher honours for themselves. Earl Canning, on his return home, was appointed a Knight of the Garter by letters patent, dated Balmoral, May 21, but he died at London on the 17th June 1862.

CANOES are largely used in India as ferry-boats, and have shapes and forms to suit the rivers and waters. Canoes at Calicut are hewn out of the trunk of the Jackfruit tree, Artocarpus integrifolia. Canoes of Point de Galle and the Malabar Coast have weather-boards on an outrigger in the form of a smaller canoe ; they are sharp at both ends, and beat to windward without tacking. The Jangar of the Malabar coast, for rivers, is a kind of canoe. The rivers of the Northern Circars are crossed by a double canoe, formed out of two pieces of a cocoanut or a palmyra tree hollowed, and kept apart by cross ties of wood. Canoes scooped out from single trees are in universal use in Burmah, the Malay Peninsula, and the Malay and Eastern Archipelago. See Boats, Java.

CANOGE. See. Kanoje.

CANONES. Sp. Cannons.

CANONES PARA ESCRIBIR. SP. Quills.

CANNONI. IT. Cannons.

CANNON. ENG.

Kanonen.	DUT.	Dziala.	POL.
Canons.	FR.	Canhoes.	PORT
Kanoen.	GER.	Pushki.	RUS.
Top.	HIND.	Canones.	SP.
Canoni.	IT.	Kanon.	SW.
Mariam Bad-il.	MALAY.	Peringigul.	TAM. TEL.
Top.	PERS.		

The cannons used for war in Eastern and Southern Africa by the Eastern nations, or by the Europeans in the East, are either imported from Europe and America, or are cast in the foundries of the several countries of the South and East of Asia. The British have a considerable foundry near Calcutta,but guns of the more recently invented forms are all imported from Britain. From the Persian term Top, is the Hindi term Top khana, a battery of artillery. The British in India have mounted batteries drawn by bullocks, ponies. horses and mules, camel batteries and elephant batteries and mountain trains.

CANNOPHYLLITES. See Dracæna.

CANOON-GO. ARAB. PERS. The village clerk, an expounder of the terms, literally, Rule-teller.

CANOUJ, in the province of Agra, a celebrated hindoo city, said to have existed from 1000 B. C. It is stated to have contained 30,000 shops for the sale of betel nut alone, but this is figurative, to indicate a great number. It is said to have been founded by two sons of Cush, who named it Mahadya, afterwards changed to Kanya kubja. It was not unfrequently called Gadhipoora. It retained its celebrity until the invasion of Shahab-ud-din (A.D. 1193), when it was laid prostrate. It was held by the Rahtore dynasty from the close of the 5th to that of the 12th century, and terminated with Jeichund. Canouj fell A. D. 1194. In S. 1268 (A. D. 1212), eighteen years after its fall, Seoji and Saitram, grandsons of Jeichund, abandoned Canoj, and with two hundred retainers, journeyed westward to the desert, aoourding to some of the chronicles, on a pilgrimage to the shrine of Dwarica; but according to others, to carve their fortunes in fresh fields. Seoji on the banks of the Looni, exterminated, at a feast, the Dabeys of Mehwo, and soon after killed Mohesdas, chief of the Gohils of Kherdhur. One of the chronicles asserts that it was Asothama, the successor of Seoji, who conquered "the land of Kher" from the Gohils, and he established his brother Soning in Eedur, a small principality on the frontiers of Guzerat, appertaining, as did Mehwo, to the Dabey race; it was during the "maatum," a period of mourning for one of its princes that he young Rahtore destroyed the clan. His escendants are distinguished as the Katonia Rahtore. The third brother, Uja, caried his forays as far as the extremity of the urashtra peninsula, where he decapitated Beekumsi, the Chawara chieftain of Okamunala, and established himself. From this act is branch became known as the "Badhail;" and the badhail are still in considerable number in that farthest track of ancient induism.—*Tod's Rajasthan, Vol. II, p.* 13, *As. Jl.* 1817, *Vol. II.*

CANOUJIA, a race or clan of Gour brahmans. Also, tribes or races in the North West of India, who trace their origin from the city of Canouj. The Canouj brahmans are met with from the Himalaya to the Nerbudda and Bay of Bengal. They have many sub divisions, but the khutkool or six-houses, the (1) Sandel got, (2) Oopmun-got, (3) Bharadwaj.got, (4) Bhuradwaj-got, (5) Koteayun or Visvamitra-got, (6) Kusip-got, and (6½) Sakrint-got are chief. The honour of an alliance with the privileged khut-khool is such, that, like the Koolin brahmans of Bengal, some of them have as many as twenty or twenty-five wives. Amongst them are included the Sunaluk'hee, who are said to have been made brahmins by Raja Ram Bug'hel, when he was in a hurry to make a sacrifice, but as he could not perform it without assembling a lac and a quarter of brahmins, he collected people from all classes and parts, and invested them with the Juneoo, or sacred thread. Others say that Manik Chund, the brother of the famous Jye Chund Rat'hore, others that one of the Surneyt rajahs, others, that the redoubtable Ram Chunder himself was the manufacturer. However this may be, they rank very low in the scale of brahmins.—*Gloss. Elliot. Supp.*

CANRU. HIND. Flacourtia sepiaria.

CANTALA. HINDI. Agave vivipara and A. yuccæfolia.

CANTARIDAS. SP. Cantharides.

CANTERBURY-BELL. ENG. Campanula.

CANTERELLE. IT. Cantharides.

CANTHARIA—? Cantharides.

CANTHARIDEÆ. A small tribe of vesicatory beetles; containing eleven genera, among which are Cantharis, Mylabris, and Meloe, species of all of which have been employed as vesicatories. The genus cantharis does not occur in India, but is largely imported. The genus mylabris is very common in the Dekhan,—*Royle.*

CANTHARIS VESICATORIA. LATREILLE.

Blistering Beetle.	ENG	Canterelle.	IT.
Spanish flies.	,,	Cantharis.	LAT.
Cantharides.	ENG. FR.	Hischpanskie muchi.	RUS
Mouches d'Espange.	,,	Cantaridas.	SPAN.
Spanische Fliegen.	GER.		

A genus of Caleopterous insects, abundant in all the south of Europe, and spread into Germany. This insect was at one time largely imported into India, but since the year 1850, species of Mylabris, obtained in India, have been substituted. *Royle.* See Cantharides.

CANTHI, a coast, in Gothic and Sanscrit.

CANTHIUM, a genus of plants of the Natural Order Cinchonaceæ.

CANTHIUM CORYMBOSUM. Pers. Syn. of Stylocoryne Webera.

CANTHIUM DIDYMUM.

Nalla regoo. Tel.

A tree of the Godavery forests, centre wood mottled and of a dark colour like old seasoned oak.

CANTHIUM NITENS—?

Malai caurai. Tam.

Dr. Wight said that he had not seen the timber nor the tree itself, but that it had been described to him in Coimbatore, as a small tree. Dr. Gibson seems to consider Dr. Wight's Canthium nitens identical with C. didymum (the Canthium umbellatum, Wight) and adds, that if right in this conjecture, the tree is a common one on the Bombay Ghats, and, from its flowers and shining leaves, well worthy a place in gardens. The wood is small and is said not put to any use.—*Wight, Gibson.*

CANTHIUM PARVIFLORUM, Lam.; *Roxb.*; *D.C.*; *G. Don.*; *W. & A.*

Webera tetrandra, *Willd.*, *Rheede.*

Kirni.	Can.	Karai-cheddi.	Tam.
Burra munga.	Hind. ! ? ?	Sengarary maram.	„
Kandan karra.	Maleal.	Nalla balusu.	Tel.
Naga valli.	Sans.	Balusu kura.	„

Found as a small shrub on many of the barren wastes of the Deccan, and on hill ridges, and Dr. Gibson had never seen it of a size sufficient for any economical purpose. Captain Beddome describes it, on the Godavery, as a dark-colored, hard, and pretty wood; good for turning small objects. This corresponds with Dr. Wight's experience at Coimbatore, where he says it occurs as a small tree or rather moderate sized shrub; wood close grained and hard, well fitted for turning small objects. In a verse of the Bharata, where Krishna, having been fed by a hunter or savage, his attendant asks: Is the Balusukura which you received from Panchalikudu equal to Salyodanam (fine rice), apupa (cakes), saka (vegetables), supam (pulse)? It is a common proverb also. Whilst life remains, I can subsist on the leaves (kura) of the Balusu:—implying submission to any necessity however grievous.—*Drs. Wight & Gibson. Captain Beddome. Fl. And.*

CANTON, a large town in the south-west of China, built on a river of same name. At an early date after the Hejira, the Arab mahomedans established a factory at Canton, and their numbers were so great by the middle of the 8th century that in 758, they attacked and pillaged and fired the city, and fled to their ships. In their commercial transactions with the Chinese, the natives of Eurpe were long restricted to this town.

CANTOR, Dr. T. A Bengal Medical Officer, author of large and valuable contributions in the Bengal Asiatic Society's Journal, to our knowledge of the mollusca, the fishes, reptiles and mammals of Southern and Eastern Asia. Notes respecting Indian fishes, in Lond. As. Trans. Vol. V. 165. Notice of skull of a gigantic batrachyan, Bl. As. Trans. 1837, Vol. vi. 538. Catalogue of Malayan reptiles, Ibid, vol. xvi. 607, 897, 1026. Catalogue of Malayan fishes, Ibid, vol. xviii. 963. On Hamadrayas, a new genus of hooded snakes, As. Res.; Lond Zool. Trans. 1838, 172. Spicilegium Serpentum Indicorum. Lond. Zool. Trans. 1839, 31, 39. On production of isinglass from Indian fishes. Ibid, 115 *Dr. Buist's Catalogue.*

CANVAS, Eng.

Zeildock,	Dut.	Canevazza,	It. Port.
Sail Cloth,	Eng.	Parussina,	Rus.
Tent „	„	Parussnoe polotno,	„
Toile a voile,	Fr.	Lona,	Sp.
Segeltuch,	Ger.	Kittan,	Tam. Tel.
Lona,	It. Port.		

In Europe, canvas woven from hemp, is used as sail-cloth for ships sails, and a finer kind is made for towels, and common table cloths. Canvas is manufactured at Pondicherry and at Cuddalore, and sold in boits containing 40 yards, at from 20 to 25 Rupees, and a coarser at 8 to 15 Rupees a bolt. Canvas of excellent quality is manufactured in Travancore. Eurcpean canvas, though much dearer, is generally preferred in India to the native material. Europe material selling at Rs.24-5-6, per bolt, while the ordinary country can be had for Rs. 16. At the Madras Exhibition of 1855, Mr. Underwood exhibited fibres of the Agave Americana in a number of different stages of preparation, as in dressed fibre, plain and colored yarns, cloth, and damask, checked, colored, and striped canvas, imitation horse hair cloth, and taboret, all made from the same fibre. Dr. Riddell also exhibited some good plain and penelope canvas, colored cloth, brushes, white and colored ladies' shoes made from the fibres of the Agave Americana. The canvas and ladies shoes were of excellent quality, and the cloth of brilliant colors. *M. E. J. R.* A coarse description of very hard brown canvas has been for some time produced in Bengal. At present in some parts of the Madras Presidency, cotton canvas of very good quality is produced: two or more threads are placed together, sometimes the threads of the web are twisted either wet or dry. Native vessels have all their sails made of an inferior description obtained in the northern parts of Madras Presidency at the rate of 6 to 8 Rupees a maund of 25 lbs. The better description would probably be more suitable than European canvas for sails which are only occasionally used. If well washed, previous to use, to get rid of the dressing it would be less liable to mildew, would be lighter and more easily handled; but the best could not be procured much under the price of ordinary English canvas.—*Rhode, MSS.*

CANYA. In hindu astronomy, the solar sign Virgo.

CAOBA. Sp. Mahogany.

CAOLAME. It. Cordage.

CAOUANA GARETTA. See Chelonia.

CAOUTCHOUC. Eng.

India Rubber,	Eng.	Chirit murai,	Malay.
Caoutchou,	Fr.	Boracha,	Port.
Federharz.	Ger.	Resina elastica, Ule,	Sp.

Caoutchouc, or Indian Rubber, is the product of several trees, native of South America, Peru, the Brazils, of India, Assam, Burmah, Penang, and the Malayan and Eastern Archipelago. In 1836, Dr. Royle reported fully on the Assam caoutchouc, which is obtained from the Ficus elastica; and the banyan tribe generally yield a milky juice which, for many purposes to which caoutchouc is applied, might be rendered serviceable. The *Ficus elastica*, has been introduced into the Tenasserim provinces, and appears to grow as well as an indigenous plant. In the Tenasserim provinces, also, Echites, an indigenous creeper, yields caoutchouc not at all inferior to that which is obtained from the elastic fig tree. The Agricultural and Horticultural Society, in reporting on a specimen sent them by Major Macfarquhar of Tavoy, observed: "With care in preparing, it would be equal to the best South American." Caoutchouc is also procurable from the Nerium grandiflora, a beautiful climbing shrub often met with in gardens. From wounds in the bark of the "Urceola elastica" of Sumatra and Pulo-Penang, a milky fluid oozes, which separates into an elastic coagulum and a watery liquid of no use. This coagulum, after some months keeping, is described as having the properties of Indian rubber. Poisonous properties are attributed to the juice of this plant. Caoutchouc is also yielded in abundance by Vahea gummifera, and Willoughbya edulis, and is also produced from the Siphonia elastica. the Loranthi abound in Malabar, and a similar substance might readily be procured, as obtained from Urceola elastica in Penang and the Archipelago. Ficus religiosa, the Indian Fig Tree, Ficus Indica, Hippomane biglandulosa, Cecropia peltata and the Jintawan of Borneo. It is dissolved by turpentine and Spt. Eth. Sulphur. For England it is chiefly obtained from South America and Singapore, and about 300 tons are annually imported at an average price of £130 a ton. In Britain there are about twenty factories where this article is made into shoes, boots, capes, cushions, elastic bands.—*Poole's. Statistics of Commerce. Mr. Rohde, MSS. Royle, Product. Resc. of Ind., p.* 76. *Mason's Tenasserim.* See Jintawan. Gum. India Rubber.

CAPA. See Eleusine coracana.

CAPALA-RUNG. Rottlera tinctoria. See Dyes.

CAPAROSA. Sp. Blue Stone.

CAPAYVA. Sp. Copaiva.

CAPE ASTER. See Cineraria.

CAPE BUNGO. A cape in Japan, in L. 33°32′ N. L. 132°2′ E., at which Ferdinand Pinto landed in 1542. See Pinto.

CAPE CARAN, called also Tanjong Awat, also Mud Point, nine miles north-west of Salangore.

CAPE COMORIN, the most southerly point of the Peninsula of India; the word is from kumari, a virgin, from a legend that a virgin once leaped from it into the sea. It is placed by Colonel Lambton in lat. 8° 5′ N., long. 77° 35′ E. It rises in a gradual slope, and is covered on the eastern ridge with palmyra trees.—*Horsburgh.* See India, 301, Kumar; Hindoo.

CAPE GUARDAFUI, a cape on the coast of Africa, nearly opposite to the promontory of Aden.

CAPE HEN, or Sooty Petrel, is the Puffinus major.

CAPE JASMINE. Gardenia florida.

CAPE LIANT, in lat. 12° 34′ long. 101° 11′, a cape in Cambogia, called by the Siamese Lem Samme San. The whole of the coast, from Cape Liant to Kamas in Kambodia, is an uninterrupted archipelago of beautiful islands. See Kambogia.

CAPE MONZE, the most westerly point in India. See Kelat.

CAPE NEGRAIS, in long. 94° 20′ E., and lat. 16 0′ N.

CAPE OF GOOD HOPE, the southernmost point in Africa. It was rounded by the Egyptians ages before the Portuguese, under the command of Vasco de Gama.

CAPE or BRAZIL GOOSEBERRY. Physalis Peruviana.

CAPE PADARAN, is the southern boundary of the great bay of the same name. It is also called Phanran, after a considerable town at the head of it.—*Horsburgh.* See Monsoon.

CAPE PALMYRAS, a projecting land in Orissa.

CAPE PETEL, also cape pigeon, the Daption Capense, Stephen. It is also called the Pintado.

CAPE RAMAS, in L. 74°0′ E. and L. 15° 6′ N. It is on the west coast of the Peninsula of India, near Goa, and has a small fort on it belonging to the Portuguese.

CAPE TALIABO, the cape terminating the small eastern peninsula of Celebes. See Papuan.

CAPE TRES FORCAS, called by the Riff occupants Kalbiya. See Semitic Races.

CAPER SPURGE. ENG. Euphorbia lathyris.

CAPER of Mount Sinai, Capparis sinaica.

CAPERS.

Kebbir.	AR.	Capparis.	LAT.
Kappers.	DUT.	Kebbir.	PERS.
Capres.	FR.	Kaperszii.	RUS.
Kappern.	GER.	Alcapparrais.	SP.
Cappari.	IT.		

The capers of commerce are the unexpanded buds of Capparis rupestris of Greece, Capparis fontanesii of Barbary, and C. Ægyptiaca of Egypt. Several species of capparis grow in south eastern Asia. C. Roxburghii, C. floribunda, C. aphylla, brevispina, Heyneana, horrida, sepiaria and urophylla, and the berries of C. aphylla, are pickled by the natives of Guzerat. It is very abundant in parts of the Panjab, where the fresh bud is cooked as a pot herb; the fruit is about the size of a marble, and is gathered both green and ripe by great numbers of the natives, who eat it largly. But the caper of commerce is brought from Europe. They are preserved in vinegar, but the quality of the product depends on the age at which they are gathered. See *Capparis.*

CAPI-COTTAY. TAM. Coffee.

CAPILA, also Capilapodi. TAM. Rottlera tinctoria.

CAPILLAIRE. A syrup prepared with leaves of the Adianthum Capillus Veneris, and A. caudatum. The last grows in Ceylon, amongst the Courtallum hills in the India Peninsula, Cochin China, and at Amboyna; the first is called by Rumphius Micca Miccan Uttan.—*Ainslie's Mat. Med., p.* 297.

CAPOETA MACROLEPIDATA, a fresh-water fish of Tenasserim, Penang, and Java, with a large swimming bladder, of which isinglass is made. See Isinglass.

CAPOOR. MAL. Quick Lime.

CAPOOR CUTCHERRY. HIND. Hedysarum spicatum, Zedoary. Likewise, the root of a plant called also "*Kakhur*" sent to India and Persia for medicinal purposes, and for perfumery, and to preserve clothes from insects. It is about half an inch in diameter, and cut up when brought to market; it has a pungent bitterish taste, and slightly aromatic smell.—*Middle Kingd., Vol. II, p.* 400.

CAPOOR ENGREES. MALAY. Chalk.

CAPOOROO. SING. Camphor.

CAPOTE. See Capers.

CAPPADOCIA and Pontus in Asia Minor: their original inhabitants were the Lud or Ludi, as far as the Halys, where the historical Lydians were seated. The Lud or Ludi were a Semitic race.

CAPPARIDACEÆ, the Caper tribe of plants, sixty-four species of which occur in the East Indies, of the genera Gynandropsis, Cleome Polanisia, Cratæva, Niebuhria and Capparis.

CAPPARIS APHYLLA, ROXB.

Karu.	HIND.	Doro (unripe fruit).	SINDH
Kirrur.	SINDH.	Pukko (ripe ,,).	
Kareel.	,,	Pusse (flowers).	

This plant grows on the banks of the Jumna, in Tinnevelly, Deccan, Guzerat. On his journey to Cabul, the Honorable Mr. Elphinstone found it growing in the midst of the desert. It grows in varying abundance all over the Punjab, where its flower buds are cooked as a pot-herb; its unripe fruits are gathered, made to assume the acid fermentation, and made into a pickle with pepper. mustard and oil, and eaten with bread. Its wood is durable and not eaten by insects.—*Roxb. Voigt. Dr. J. L. Stewart.*

CAPPARIS BREVISPINA, D. C.

SYN.

C. acuminata, *Roxb.* ii. 566.

Kalo-kera.	BENG.	Authoondy kai.	TAM.

A plant of Malabar and Bengal. A scrambling shrub, common in hedges with a beautiful red fruit, the size of a small pear; the stem armed with yellow thorns in pairs at the leaves. The green fruit is used in making pickles.—*Jaffrey. Voigt. Roxb.* See Vegetables of Southern India.

CAPPARIS CARANDAS. GMEL. Syn. of Carissa carandas, *Lin.*

CAPPARIS DECAISNÆI. Its buds, Paneero, Sindi, would well replace the ordinary capers of commerce.

CAPPARIS DECIDUA. Karel, HIND. Its fruit called "délé," is gathered from the tree when it is of a bright red color and about the size of a cherry; it is used as a pickle.—*Powell Hand Book,* 271, 272.

CAPPARIS DIVARICATA, LAM. W. and A.

Pachoonda,	MAHR.	Budareni.	TEL.
Toaratti maram.	TAM.		

A small tree, growing in Coimbatore, and not uncommon on the more arid wastes and in the dry hedges of the interior of the Bombay Presidency. Wood said to be only fit for fuel.—*Wight, Gibson.*

CAPPARIS GRANDIS. LINN. *W. & A. W. Ic.* 21.

C. maxima, *Heyne in Roth. : Roxb. E. I. M.*
C. bisperma, *Roxb.*
C. grandis, *Klein.*
C. brevispina? *Gibson.*

Waghutty.	MALAY.	Gullem chettu.	TEL.
Vellai toaratti maram.	TAM.	Regutti. ,,	,,
Guli.	TEL.		

A small tree growing in Coimbatore, and common in waste places inland of the Bombay Presidency; wood close grained, hard and good, too small for general use, but good for turning.—*Wight, Gibson, Elliot, Flor. Andhrica, Useful Plants.*

CAPPARIS HEYNEANA, WALL. Chayruka. HIND. A shrub growing in south western India, at Cochin and Courtallum ; its leaves are used for rheumatic pains in the joints, and its flowers as a laxative drink.—*Voigt.* 74.

CAPPARIS HORRIDA, LINN.; *W. & A. Ic.*
Capparis zeylanica, *Roxb.* ii. 567.

Ardanda.	DUK.	Katallikai.	TAM.
Thorny caper-bush.	ENG.	Atanday.	
Ardanda.	HIND.	Adonda.	TEL.
Hunkara.	SANS.	Arudonda.	,,

Grows in the Punjab, Bengal, and the Peninsula of India. The natives eat this fruit dressed in different ways, but chiefly as a pickle.—*Ainslie, p.* 238. *Dr. Stewart, Roxb.*

CAPPARIS OBOVATA. Caper. ENG. This is found in the Sutlej valley between Rampur and Sungnam at an elevation of 3,000 to 5,000 feet. Its fruit is pickled.—*Cleghorn Punjab Report, p.* 68.

CAPPARIS PANDURATA. LINN.

C. Zeylanica.	LINN.	Than-yeet.	BURM.

CAPPARIS SEPIARIA. ROXB. ii. 568.

Kantagur ; Kamai.	BENG.	Nalla uppi.	TEL.

Grows in Bengal and Peninsula, and is a good hedge plant.—*Voigt.* 74, 75.

CAPPARIS SINAICA The buds of the Capparis Sinaica, or Caper of Mount Sinai, are the filfil-ul-jibbel, or mountain pepper of the East—*O'Shaughnessy.*

CAPPARIS SPINOSA. L. bauri.

Kabra,	HIND OF LAD.	Ber,	HIND OF CHEN.
Kaur, Kiari,	SUT.	Bandar,	SUT
Kabarra,	T. I.	Taker,	,,
Bauri,	SUT.	Bassor.	,,
Barari.	CHEN.	Kakri,	,,

In Europe this plant furnishes the caper. It generally grows in the Punjab, exactly as a recent traveller has described it on Sinai, viz., "in bright green tufts hanging down from the clefts of the rocks," and adorned with very handsome large flowers. It is found near Multan, in the Salt Range, along the Trans-Indus hills to Peshawar, and in the valleys of some of the great rivers, ascending to 5,000 feet at Wangtri, on the Sutlej (8,000 feet, Thomson), and on the Indus above Iskardo to about 10,500 feet (Jacquemont and Thomson,) and it occurs to 12,000 near Leh. Ripe fruit is made into pickles by the natives of the Salt Range, &c., but in some places at least eaten only by hindus. Mr. Edgeworth prepared the buds in the European style as capers, and found them first-rate. In Ladak the leaves are used as greens. They are eaten by goats and sheep, and in Kangra the roots are said to be applied to sores.—*Dr. J. L. S. Stewart,* 616.

CAPPARIS TRIFOLIATA. Three-leaved caper. Cratœva Roxburghii. Tikto-shaq, BENG. The three-leaved caper tree grows in the two peninsulas of India, produces large handsome terminal heads of flowers, with numerous purple stamens and white clawed petals, that change to cream color.

CAPPED MACAQUE, one of the Simiadæ, the Macacus radiatus of *Desm.*

CAPPELLI. IT. Hats.

CAPPERN. GER. Capers.

CAPRA HIRCUS. LINN. This has five varieties, viz. :

Var. a. Capara Ægagrus, of Cossya, *Buch.* lives in the highest Khassya mountains, where they are reared by the people. It has no wool, and is used for food.

Var. b. Capra Ægagrus of Changra, *Buch.*

SYN.

Capra Ægagrus lanigera. *Desm.*
,, hircus, *var. Desm.*

Shawl-goat.	ENG.	Cholay.	NEPAUL.
Bouc de Cachemire.	Fr.	Camjoo.	TIBET.
Changra.	HIND.		

This is domesticated in Tibet, and the wool is exported to Cashmere, where it is made into the finest shawls. It has on the body a long coarse hair intermixed with which is a fine soft wool, which is the article used in the manufacture.

Capra Ægagrus, of the mountains of Asia, is believed to be the parent stock of all the goats, mingled perhaps with the C. Falconeri of India. The breeds greatly differ from each other, but they are fertile when crossed. *Darwin.*

Var. c. Capra imberbes, the Berbura, *Buch.*

The Berbura goat is found to the west of the Jumna. Its female is the berburi, and the Bengali calls it Ram Sagul. The body is very like the long legged goat of the South of India; in manners they are similar, the scrotum of the male externally is separated into two distinct bags.

Var. d. Tibetan goat of Ladakh has a short tail and very short ears, scarcely 2 inches long and concealed, has long soft pendulous hair, but no wool.

Var. e. Tibetan goat of Ladakh has long soft pendulous hair but no wool.

CAPRA IBEX HIMALAYANA, *Blyth.*

SYN.

Himalayan Ibex.	Eng.	L'Dmau, (female).	Hind.
Skeen, (male).	Hind.	Kyl.	Cashmere.

Inhabits Ladakh and Cashmere.

CAPRA JEMLAICA, Ham. Smith.

SYN.

Hemitragus quadrimammis. Hodgs.
Capra. ,, ,,

Jharul.	Hind.	Tehr.	Hind.
Ther		Kras	Cashmire.

Inhabits Nepaul.

CAPRA HIMALAYANA. See Capreæ.

CAPRA JHARAL. See Capreæ.

CAPRA MEGACEROS, Hutton.

SYN.

C. Falconeri, Hugel.

Mar-khor.	Hind	Snake Eater.	Eng.

Inhabits the highest parts of the Tibetan Himalaya.

CAPRICORNIS BUBALINA, Hodgson.

SYN.

Antelope bubalina, *Hodgs.*
Nemorhedus prochous ,,
Capricornis Thar, *Ogilby.*
Thar of Nepaul.

A wild and solitary animal of the Nepaul mountains, up to the Sutlej. *Cat. Ind. Mus.*

CAPRICORNIS CRISPA, the Japanese goat antelope.

CAPRICORNIS SUMATRENSIS.

SYN.

Antelope Sumatrensis, *Desmarest.* Cambing out'an, Malay: Sumatran antelope, inhabits Sumatra.

CAPRIFOLIACEÆ. See genera of plants, Caprifolium, Cornus. Lonicera.

CAPRIFOLIUM SEMPERVIRENS. R. ET. S.

SYN.

Lonicera sempervirens. D. C.	Trumpet Honey-suckle	Eng.

The honey-suckle is occasionally seen in India.

CAPRIMULGIDÆ. A family of birds in which is the genus Caprimulgus, the Goat-sucker.

CAPRIMULGUS, a genus of birds belonging to the tribe Insessores and family Caprimulgidæ of which the following species are found in India, viz., C. Affinis, of Java, C. albonotatus, C. Asiaticus of India, C. atripennis, C. Indicus, of Kamaon, Malacca, C. Kelaarti, C. macrouris of Java, C. Mahrattensis of the Dekhan, C. monticolus of do., C. rufficollis. Mr. Blyth, writing of *C. Kelaarti*, Blyth, says both sexes much resemble C. *Indicus*, Latham, but smaller, and identical with the Nilgherry bird. The three species much resemble C. Europæus in their general aspect, but have plumed tarsi, the length of wing in three specimens of *C. Kelaarti* ranged from $6\frac{7}{8}$ to $7\frac{1}{8}$ in., in five of *C. Indicus* from $7\frac{5}{8}$ to $7\frac{7}{8}$ in., and in one of the Chinese (?) race $8\frac{1}{2}$in.

CAPSELLA BURSA PASTORIS, *Mœnch.* Mullay muntha keeray. *Tm.* Shepherd's purse, English, common on the Neilgherries, grows in Europe, Persia, Asia, India, and Japan; used by the natives as a pot-herb.—*Jaffrey, Wight.* See Vegetables of Southern India.

CAPSICUM. Eng. Lat.

Filfil.	Ar.	Lombok.	Malay.
Nga youk thi.	Burm.	Ladamera.	,,
Red pepper. Chillies.	Eng.	Lada-china.	,,
Lall Mirich.	Duk.	Chabe sabrang.	,,
Mirchie.	Guz.	Filfil i Siah.	Pers.
Chabai.	Malay.	Mallaghai.	Tam.
Chabe.	,,	Mirapa-kai.	Tel.
Chabul.	,,		

The varieties or species of this genus of plants are very largely used by the various races in the south and east of Asia. It is this lant, and not any of the genus Piper, which is the peppery condiment of all the inhabitants of India and the Asiatic islands in Eastern Asia; the latter, indeed, being little used, and mostly raised for exportation. Foreign species or varieties of Capsicum have been introduced into the Archipelago, and are named Chabe China, the Capsicum of China; and Chabe Sabrang, the Capsicum of India, literally, of "the other side of the water." There are now numerous varieties of chillies in India, many of which have been introduced. They are raised from seeds that have been kept for one year, for if fresher, the crop is generally a lure. One species called "devil's pepper,' introduced by Lord Harris, from Trinidad, is so intensely hot that the natives can hardly manage to use it. It is cultivated during the old months. In the Tenasserim Provinces they have large quantities of Cayenne-pepper, f which two or three species enter into all he native dishes, not in the form of pepper, ut the fruit, stewed or roasted, is eaten with he food. In India, the dried fruits of several species and varieties of Capsicum are the

Capsicum annuum. (common Capsicum.)
,, frutescens. (Goat pepper.)
,, grossum (Bell pepper)
,, minimum (Bird's Eye pepper.)

erhaps, only cultivated varieties of one species. These, valued as a digestive condiment, are raised all over the S. E. of Asia, the principal use of them being as condiments and to make cayenne pepper and chilli vinegar.—*Crawfurd Dicty. p.* 82. *Jaffrey. Mason.* See Cayenne pepper, Capsicum Mirchi.

CAPSICUM ANNUUM. Linn.

Gach mirich.	Beng.	Kapu molagu.	Maleal.
Common chilly.	Eng.	Matitsawranga,	Punj.
Spanish pepper.	,,	Mollagu.	Tam.
Common capiscum	,,	Mirapa kaia,	Tel.
Red pepper.	,,		

Is largely cultivated in South America, Mexico, and India. See Chillies.

CAPSICUM BACCATUM. LINN. Bird's eye-pepper, var. of Capsicum annuum. *Linn.* See Chillies.

CAPSICUM FESTIGIATUM. BLUME. Cayenne pepper, usari mullaghai. Tam. var. of Capsicum annuum.—*Linn.*

CAPSICUM FRUTESCENS. LINN. Var of Capsicum annuum. LINN.

Lal Lamba mirch,	BENG.	Chabe Lombok	MALAY.
Nepal chilly.	ENG.	Ladamera	,,
Golkondah chilly.	,,	,, china	,,
Goat pepper.	,,	Brahu Maricha.	SANS.
Chilly,	,,	Mollaghai	TAM.
Bird pepper.	,,	Merapa-kaia	TEL.
Cayenne pepper.	,,	Golakonda	,,
Lail mirch.	HIND.	Mirapah	
Lanka mirch.		(yellow variety)	,,
Lalgach march.	,,	Sima	TEL.
Chabai	MALAY.	Sudimirapa-kaia	,,

A yellow variety is β flavum.

This, the large red capsicum, grows all over India by sowing the seed broad-cast, and when the plants are about six inches high, putting them either in rows or beds eighteen inches apart. The soil should be rich. They require watering, and to be kept clear of weeds, a yellow variety is β. flavum.—*O'Shaughnessy, page* 468. See Capsicum. Chillies. Mirchee. Vegetables of Southern India. Capsicum minimum. Cayenne Pepper.

CAPSICUM FRUTICOSUM. See Capsicum.

CAPSICUM GROSSUM. WILLD. Bell pepper, Kafferi mirich. HIND. A var. of C. annuum. Syn. Capsicum annuum. *Linn.* See Capsicum. Capsicum minimum.

CAPSICUM MINIMUM.

Gua yoke.	BURM.	Bird's eye pepper.	ENG.
Gu yoke mo-hmvau.	,,	Oosi-mulaghai.	TAM.
East Indian Bird pepper.	ENG.	Sudi mirapa kaia.	TEL.

This plant yields its fruit for a series of years. Its fruit is very hot.

CAPSICUM NEPALENSIS. Var. of Capsicum annuum. LINN.

Gach-march,	BENG.	Mallagai,	TAM.
Capoo Moolagoo,	MALEAL	Merapu kai,	TEL.
Ratamiris,	SINGH.		

This is the most acrid and pungent of the species Capsicum.—*Linn.*

CAPSICUM PURPUREUM and C. minimum, or Cayenne pepper. In Pegu, both species are cultivated in small quantity for domestic use.—*McClelland.* See Chillies. Vegetables of Southern India.

CAPSULES DES PAVOTS BLANCS. FR. White Poppy capsules.

CAPUCINE. See Capers.

CAPULAGA, also Powar. MALAY. Cardamom.

CAQUEAX, of Europe. See Rhodia.

CARABUS, a genus of the family Carabidæ, many species of which occur in India.

CARABUS CÆLESTIS, a beautiful species of Carabus. Beetle obtained in China. *A. Res. among the Chi. p.* 62. See Coleopteri.

CARACAL, or Indian lynx, has immense speed, runs into a hare as a dog into a rat. It often catches crows as they rise from the ground, by springing five or six feet into the air after them.

CARALLIA CALYCINA, BENTH. in Linn. Journ. This large Ceylon tree has two varieties, var. *a* Singhe Rajah forests, between Galle and Ratnapoora, at no great elevation. Var. β Central Province, at an elevation of 4,000 to 5,000 feet.—*Thw. Enum. Pl. Zeyl. II., p.* 121.

CARA CARNAY KALANG. TAM. Tacca pinnatifida.

CARAGANA GERARDIANA. Tartarian furze.

CARAGANA VERSICOLOR ROYLE.

Dama	TIB.	Caregana Pigmaæ.	D. C.

A small shrub, which grows in Tibet and Western Himalaya at elevations of 14,800 feet, and is very useful for fuel.—*Drs. Stewart and Thomson.*

CARA-KAIA. TEL. Myrobalan.

CARALLIA LANCEÆFOLIA, ROXB. A tree of Sumatra.—*Voigt.*

CARALLIA LUCIDA, ROXB.

Carallia integerrima, *D.C.* | Carallia integrifolia, *Grah.*

Kierp	BENG.	Dewata gass.	SINGH.
Maneioga	BURM.	Davette.	,,
Phansi.	CAN.		

This tree grows on the Malabar side of India, in the Konkans, in the Circars, Kemaon, Silhet, Chittagong, Pegu and Mergui. In Ceylon up to 3,000 feet. On the Bombay side, it is a handsome tree, pretty frequent in the forests of the South Konkan; not seen elsewhere. Wood hard, close-grained, and might be used in turning. It is seldom large enough for any other purpose. Thwaites says it is rather ornamental and adapted for furniture. It is a large common tree, north of Rangoon and throughout Pegu. Wood of a peculiar structure, thick medullar rays going through from the centre to the circumference; colour red, used for planks and rice pounders, and may possibly be found useful for cigar boxes. A cubic foot weighs lbs. 60. In a full grown tree on good soil, the average length of the trunk to the first branch is 50 feet, and average girth measured at six feet from the ground is 10 feet. It sells at 8 annas per cubic foot. In the southern forests of Pegu, it is a plentiful tree of large girth, and in Calcutta, is employed in house-building under the name of *Kierpa.*—*Drs. Gibson, McClelland and Brandis, Voigt.*

CARALLUMA ADSCENDENS. Culleemoolayan, TAM. This curious looking fleshy plant, with angular stems, belonging to the natural order Asclepiadæ, is used by the natives in making pickles, and sometimes in chatney.—*Jaffrey.* See Vegetables of Southern India.

CARALOO. TEL. Setaria Italica.

CARAMBOLA TREE. ENG. Averrhoa carambola.

CARAMBOO. TAM. Caryophyllus aromaticus.

CARAMEEN. TAM. Zeus.

CARAMUNNY KEERAY. TAM. Dolichos catiany.

CARAMUNNY PYRE. TAM. Dolichos catiany.

CARANA PALM, the Maurita carana. Its leaves are used as a thatch for houses.—*Seem.*

CARANGALLY. TAM. Acacia sundra.

CARANJA, OR **CARRIJA ISLAND,** south of Elephanta, on the east side of the Bombay harbour, is four miles long and two broad, is low and woody, with two hills called after the island.—*Horsburgh.*

CARANOSI. RHEEDE, Vitex trifolia.

CARANX ROTTLERI? Rudder fish, an inhabitant of the southern seas, from one to two feet long. See Fishes. Scomberidæ.

CARAPA. *Species.*

Taila-oon. BURM.

A Tavoy wood, used in building.—*Col. Firth.*

CARAPA GUIANENSIS. See Dyes.

CARAPA MOLUCCENSIS. See Xylocarpus granatum.

CARAT, from the Greek keration, a kind of vetch. A carat weighs four grains French or 3¾ grs. Troy. It is so used in weighing precious gems. It is used also in valuing the alloyed precious metals, in this case standing for an imaginary 24th part of the pound troy, the number of carats indicating the pure metal, and the remainder the alloy. Thus the standard of the sovereign is 22, or two parts alloy. Of watch cases with the goldsmiths Hall mark 18 or six alloy. In France, the latter is the lowest legal standard.—*King.*

CARAVAN. See Cafilali, Kafilah : Karwan.

CARAVANSERAI, in Syria, forms four sides of a large quadrangular court. The ground floor is used for warehouses, the first floor for guests, and the open court for the loading and unloading of their burthens, and the transaction of mercantile business generally. The apartments used for the guests are small cells opening into a corridor, which runs round the four sides of the court.—*Eothen's Travel in the East, p.* 243. See Serai.

CARAVOAS OR **BUFFALOS,** in about lat. 11° 53′ N. are two small islands in the Mindoro sea.—*Horsburgh.*

CARAWAY SEED, ENG.

Carvi,	FR.	Keummel,	GER.
Cummin des pres	„	Carvi,	IT.
Brodkummel	GER.	Carum Carui	LAT.

These aromatic seeds are used to flavour cheese, spirits, liqueurs and articles of medicine.—*O'Shaughnessy, p.* 358.

CARAY CHEDDI. TAM. Webera tetrandra.

CARBO-LIGNI. LAT. Charcoal.

CARBON, when pure, is diamond; less pure, is plumbago, coal and charcoal.

CARBONAS POTASSÆ. LAT. Potash.

CARBONATE DE MAGNESIE. FR. Magnesia alba.

CARBONATE OF COPPER. See Copper.

CARBONATE OF LIME. This is a very abundant mineral in the Tenasserim provinces, and embraces several varieties of which stalactical carbonate of lime is one. All the limestone caves have stalactites hanging from their roofs; and stalagmites raised on their floors. The Siamese Karens often bring over bits of limestone of the shape of a shell, and when broken, a shell usually of the genus Melania appears, that has been encrusted with carbonate of lime. Much of the alabaster of which ornaments are made is stalagmite; but all the alabaster images of that coast are made of marble: and not of compact gypsum, which they much resemble. *Mason.* See Calcareous spar; marble, fossil, nummulite. Chalk. Dolomite.

CARBONATE OF POTASH. See Potash; Dyes.

CARBONATE OF SODA. This has been noticed under the head Barilla. Sajji, or Barilla is an impure carbonate of soda, prepared by burning plants of the Salsola and other species, and collecting the ashes, which melt into dark colored mass. "Sajji lota" is a somewhat purer kind, but still contains an immense amount of organic and other foreign matter, such as the sulphates of soda and lime, chloride of sodium and potassium, sulphide of sodium, sulpho-cyanide, and ferro-cyanide of sodium, together with silica and clay. The "Kangan khár" plant yields the best alkali. The pure sajji, from this plant, is called "lota sajji," and the residue mixed with ashes, is called "Kangan khar sajji." The other two plants yield only a dirty and inferior substance known as "Bhutni sajji," "devil's soda." This is black in color and sold in pieces like lumps of ashes. The plant burned in the Panjab is termed "Khar," or in Persian "Ashkhar." The scientific name is Coronylon Griffithii. There are many square miles densely covered with this last, whereas the Khar is comparatively rare.

"Khar," is applied to various herbs belonging to the natural order Chenopodiacæ, particularly the Anabasis multiflora and the Coronylon Griffithii. The ashes which fuse run into a pot placed beneath the burning heap. This occurs as an efflorescence in some parts or other of almost every district in India. Muriate of soda and carbonate of lime exist in the soil, and the natron is found on the surface of the moist earth or mud. Near Gundycottah, on the banks of the Pennar, common salt is interstratified with the upper schistose strata of the argillaceous limestone on which the sandstone rests ; and on the surface of the neighbouring soil, natron, contaminated with much muriate of soda, is collected.—*Powell, Dr. J. L. Stewart.*

CARBONCHIO. IT. Carbuncle.

CARBONE DI LEGNA. IT. Charcoal.

CARBONES DE TIERRA. SP. Coal.

CARBONIC ACID.

Aerial acid,	ENG.	Kohlen saure,	GER.
Choke damp,		Spiritus lethalis,	LAT.
Fixed air,		cidum carbonicum	
Acide Carbonic,	FR.		

CARBONI. FOSSILI. IT. Coal.

CARBUNCLE. ENG.

Escarboukle.	FR.	Dalima,	MALAY.
Karfunkel.	GER.	Mastiga	,,
Carbonchio	IT.	Carbunculo,	SP.
Carbunculus.	LAT.	Manikiam.	TAM.
Merah,	MALAY.	Do.	TEL.

One of the inferior gems : that variety of the garnet called almandine. Common in Southern India. Carbuncles, from the most ancient times of the Romans, have been set with a backing to enhance their colour. See Garnet.

CARBUNCULO. SP. Carbuncle.

CARBUNCULUS. LAT. Carbuncle.

CARBURET OF IRON. See Plumbago. Blacklead.

CARCATA, also CARCATACA, SANSC. The solar sign Cancer. See Varsha.

CARDAMOM. ENG.

Hilbuya.	AR.	Kapol.	JAV.
Ebil.	,,	Cardamomum.	LAT.
Yalakki.	CAN.	Puwar.	MALAY.
Cardamomen.	DUT.	Capulaga.	,,
Cardamom.	ENG.	Kakelah-seghar,	PERS.
Lesser Cardamom.	,,	Heil.	,,
Cardamomes.	FR.	Cardamomus.	PORT.
Kardamom.	GER.	Eusal.	SINGH.
Kardamomon	GR.	Kardamomos.	SP.
Ellachi.	HIND. GUZ.	Yellam arisi.	TAM.
Cardamomi	IT.	Yeylakulu.	TEL.

The cardamoms of the shops are the produce of several genera of plants, the Alpinia, Amomum, Elettaria and Renealmia. The round seeds of Amomum cardamomum of the Birmah forests, Sumatra and Malacca, are used by the Malay in lieu of the true cardamom. A. angustifolium of Madagascar supplies some of the cardamoms, A. maximum of the Malay Islands and Nepaul, and Ceylon, also produces a cardamom of an inferior character. Alpinia cardamomum of the Western Coast of India in the Travancore forests, produces a cardamom in great request. Amomum grana Paradisi of Madagascar and Ceylon, yields an inferior sort. Elettaria cardamomum of the hilly parts of Malabar and Travancore and Canara, yields the true cardamom. At the Madras Exhibition of 1855, the Elettaria cardamomum was exhibited from Mysore, Coorg, Canara and Travancore.

The true cardamoms of the Elettaria cardamomum are either cultivated or gathered wild. In the Travancore forests they are found at elevations of three to five thousand feet. The mode of obtaining them is to clear the forest of trees, when the plants spontaneously grow up in the cleared ground. Roxburgh states that in Wynaad, before the commencement of the rains in June, the cultivators seek the shadiest and woodiest sides of the loftier hills, the trees are felled, and the ground cleared of weeds, and in about three months the cardamom plant springs up. In four years the shrub will have attained its full height, when the fruit is produced and gathered in the month of November, requiring no other preparation than drying in the sun. The plant continues to yield fruit till the seventh year, when the stem is cut down, new plants arising from the stumps. They may also be raised from seeds. Cardamoms are much esteemed as a condiment, and great quantities are annually shipped to Europe from Malabar and Travancore. In commerce there are three varieties, known as the short, short-longs, and the long-longs. Of these the short are more coarsely ribbed, of a brown colour, and are called the Malabar cardamoms or Wynaad cardamoms. They are reckoned the best of the three. The long longs are more finely ribbed, are of a paler colour, and the seeds are white and shrivelled. The short-longs merely differ from the latter in being shorter or less pointed. It is usual to mix the several kinds, together, when ready for exportation. Some care is required in the process of drying the seeds, as rain causes the seed vessels to split and otherwise injures them, and if kept too long in the sun their flavour becomes deteriorated. In Travancore they are chiefly procured from the high lands overlooking the Dindigul, Madura, and Tinnevelly districts. In these mountains the cultivators make separate gardens for them, as they thrive better if a little care and attention be bestowed upon them. Cardamoms are a monopoly in the Travancore State, and cultivators come chiefly from the British provinces, obtaining about 200 or 210 Rupees for every candy delivered over to the Government. The average number of candies for the years 1845 54 was about 300 candies. It is in the forests on the western slopes of the Coorg mountains, that cardamom cultivation is carried on to a great extent. In February, parties from Coorg start for these western mountains, and selecting a slope facing west or north, mark one of the largest trees on the steepest declivity. A space about 300 feet long and 40 feet broad, is then cleared of brushwood at the foot of the tree, which is cut down about 12 feet from the ground, and carries with it a number of small trees in its fall. Within three months after its felling during the first rains of the monsoon, the cardamom plants in the soil begin to show their heads all over the cleared ground, and before the end of the rainy season, October, they grow two or three feet. The ground is then carefully cleared of weeds and left to itself for a year, and then, 20 months after the felling of the great tree, the cardamom plants are the height of a man, and the ground is again carefully and thoroughly cleared. In the following April, the low fruit-bearing branches shoot forth, and are soon covered with clusters of flowers, and afterwards with capsules. Five months afterwards, in October, the first crop is gathered, and a full crop is collected in the following year. The harvests continue for six or seven years, when they begin to fail, and another large tree must be cut down in some other locality, so that the light and air may cause a new crop to spring up. The harvest takes place in October, when the grass is very high and sharp, sorely cutting the hands, feet and faces of the people, and concealing numerous large leeches. The cultivators pick the cardamom capsules from the branches, and convey them to a temporary hut, when the women fill the bags with cardamoms, and carry them home, sometimes to distances of ten or twelve miles. Some families will gather twenty to thirty maunds annually, worth from Rupees 600 to Rs. 1.000. Cardamom tracts of Travancore are almost all granitic and gneiss. The cardamoms of commerce are the capsules which are gathered as the seeds ripen, dried in the sun, and they are then fit for sale. The smaller capsules, or lesser cardamoms, are the most valuable. The Karen forests of Tavoy and Mergui abound with cardamom plants; and while subject to the Burmese government, the Karen were required to collect the seeds and pay them in as tribute; but they now employ their time more profitably; when they did collect, they were in the practice of mixing a spurious kind of cardamom with the true, produce of a plant belonging to the genus amomum, believed to have been A. cardamomum. Cardamoms are also extensively grown in the woods north of Nuggur in Mysore, and are exported to all parts of Southern India. The Ellettaria cardamomum is also cultivated in Ceylon, and a species occurs wild. Cardamoms are known in the Malay and Javanese languages by two names, Kapulaga and Puwar, which appear to be native words. Of the cardamom called by the Chinese *Yang chun-sha*, the hairy China cardamom of pharmacologists, is said to be produced in the province of Kwang-tung, and it may be a native of Cochin China The plant bearing scitamineous fruit, to which the name, large, round China cardamom has been given, and which is known to the Chinese as *Tsaou-kow*, continuous unknown, and the same remark applies to the bitter-seeded cardamom, *yih-che-tsze*, and ovoid China cardamom, *Taou kwo* or *Qua leu.* It is probable that all of them are productions of the south of China, or of Cochin China.—*Madras Ex. Jur. Rep. Drs. Mason. Voigt. Crawfurd Dictionary, Thwaites En. Drury, Cochin*: *Roxb.* I. 72.

CARDAMOMEN. Dut. Cardamom.

CARDAMOMES. Fr. Cardamom.

CARDAMOMI. It. Cardamom.

CARDAMOM PLANT. Eng. Syn. of Ellettaria cardamomum. *Moton.*

CARDAMOMS, Bastard or wild.

Kapulaga,	Bali. Jav. Malay.	Kurrocha,	Guz. Hind.
Wild or Bastard Cardarmoms,	Eng.	Hil kilau,	Pers.

Are much larger than the true cardamom, more pungent but less aromatic, with a strong camphoraceous taste. They are not much esteemed, and are only used by the poorer classes of natives as a substitute for real cardamoms. They are brought to Bombay from the Malabar Coast. The wild or bastard cardamom of Siam is produced by Amomum xanthioides, Wallich; the seeds have been imported into England, while the empty capsules are found in the drug shops of China. The latter are exported from Siam to China. *Faulkner.*

AMOMUM GRANA PARADISI. Paradise grains, Malaguetta pepper. A native of the coast of Guinea near Sierra Leone.—*O'Shaughnessy, page* 650.

AMOMUM GRANDIFLORUM, yields seeds of camphor-like flavour.—*O'Shaughnessy, page* 650.

CARDENILLO; Verdete; Verdegris. Sp. Verdigris.

CAREDEUCHA, CARDO PEINADOR. SP. Teasel.

CARDIOPTERIS. At Cachar, in the Assam valley and Chittagong this remarkable plant of unknown affinity covers the trees for upwards of sixty feet, like hops, with a mass of pale green foliage, and dry white glistening seed-vessels.—*Hooker Him. Jour. Vol.* II., *p.* 334.

CARDIOSPERMUM HALICACABUM. LINN.

Nuputki.	BENG.	Budda-kakaua-	TEL.
Ma-la-mai.	BURM.	Kanakaia,	
Shib-jul.	DUK.	Nella gulisienda,	
Heart pea	ENG.	Upariinta,	
Smooth leaved do.	,,	Budda busara	
Balloon vine	,,	Ullena tige,	
Ulinja	MALEAL.	Vekkudu tige,	
Karavi,	SANS.	Jyotishmati,	
Moda-cottan	TAM.	Patali tivva,	
		Ekkudatige,	

The seeds.

Habb-ul-kulkul, PUNJ.

An annual climbing plant, with an inflated membranous capsule, hence its name. The root is aperient. It is mucilaginous, and slightly nauseous to the taste, is raised in great quantities by the natives of Tenasserim, but more as a vegetable than a medicine. Grows all over India. C. canescens, Wall, grows on the Irrawaddy. *Voigt.* 93 —*Mason. Ains. Mat. Med. p.* 89. *Voigt.* 93. *Dr. J. L. Stewart.* See Jyotishmati.

CARDIUM, a genus of molluscs, many species of which occur in India. Ainslie names

Cardium edule.	ENG.	Seepee.	DUK.
Muttie.	TAM.		

Ains. Mat Med. p. 155.

CARDIVA OR KARATEEVO ISLAND, on the west coast of Ceylon, extends north and south 11 miles, about 1½ to 4 miles from the shore.—*Horsburgh.*

CARDOLE, a thick black oily substance obtained from the pericarp of the cashew nut, Anacardium occidentale. It is a powerful vesicating agent.

CARDON DE CARDARE. IT. Teasel.

CARDS : Playing cards.

Kaarten.	DUT.	Carte de giaco.	IT.
Speel-Karden	,,	Kartii	RUSS.
Cartes a jouer.	FR.	Carnas.	SP.
Karten	GER.	Naipes.	
Spiel-Karten	,,	Kort.	SW.
Ganjifeh.	HIND.		

The playing cards of the hindu and mahomedan, are round pieces of strong card, painted with figures of men, quadrupeds and fish.

CARDUCHI, the Kurd country in Kurdistan.

CAREEMARADOO. TAM. ? A Travancore wood, of dark brown colour, two to six feet in circumference ; used for carts and building.—*Colonel Frith.* (Probably a species of Pterocarpus.)

CAREI. A people mentioned by Ptolemy, who inhabited the southern part of Tinnevelly. Karei in Tamil, means " the shire."

CAREPAKU KURA. TEL. Bergera Konigii.

CARETTA IMBRICATA, one of the turtles of the Red Sea. See Chelonia, Reptilia.

CAREX, a genus of plants belonging to the natural order Cyperaceæ, several of which grow on the sea shores and near the rivers of India. Voigt names eleven introduced species of Carex, but C. Indica, Willde, is a native of Nepaul.

CAREX MOORCROFTII. Grass is very scarce in Thibet, but Carex Moorcroftii, a running wiry sedge, binds the sand like the Carex arenaria of the English coasts.—*Hooker Him. Jour. Vol.* II., *p.* 155.

CAREY, Dr. W., a celebrated missionary at Serampore. He was the founder of protestant missions to India, and landed in Calcutta on the 11th November 1793. He was the son of a parish clerk He joined Messrs Ward and Marshman at Serampore, on the 10th January 1800. His whole life was passed in the translation of the Scriptures into the languages of India ; his whole career was marked with a passionate desire to reveal Christ to men who knew him not. His strong natural benevolence had been intensified by deep piety and warmed and elevated by the grace of God, until his heart glowed with a settled fervour. Author of State of Agriculture in Dinajpore, in As. Res. Vol. VI. Geographical notices of Serampore. As. Jl. 1835, Vol. II. 55.

CAREYA, *Species.* Kaga. BURM. A large timber tree of Tavoy.—*Col. Frith.*

CAREYA, *Species.* Zaza. BURM. A Martaban wood, used for posts, &c.—*Col. Frith.*

CAREYA ARBOREA, ROXB. ; *Corr.* ; *Rheede* ; *W. & A.*

Bakoomba	of BOMBAY.	Peloa	MALEAL.
Ban or bambhooai.	BUR.	Kahatta.	SINGH.
Bambouai.	BURM.	Ave-mavo,	TAM.
Baubwai.	,,	Puta-tanni maram.	,,
Cumbia.	CAN.	Paiiæ maram ?	,,
Carey's tree.	ENG.	Kumbhi.	TEL.
Kamba.	HIND.	Budada-nedi ?	,,
Koombha.	MAHR.	Koombee	URIA.
Wae koombha.			

Its flowers.

Vakhumba.

Its fruit.

Gugaira	HIND.	Kuhni	HIND.

This tree grows in most parts of India, of good size, and in many places abundant ; and except Drs. Riddell, Wight and Cleghorn, its timber is praised by all who have noticed it as a good serviceable wood, having a good tenacity of fibre and durable It occurs in the south and west of Ceylon, in Coimbatore, is very common in the inland and coast jungles of Bombay, is found in the Dekhan, in Ganjam and Gumsur, is one of the most numerous trees throughout the province of Pegu, and is abundant in Tenasserim, Amherst, Tavoy, and Mergui. Dr. McClelland says that in Pegu the timber is large, the wood red and equivalent to mahogany, and there forms the chief material of which the carts of the country are made, Dr. Mason adding that it is a useful timber for house building, and Dr. Brandis mentions that it is used for gun-stocks, house posts, planks, &c. a cubic foot of the Pegu wood weighs 55 lbs. In a full grown tree on good soil the average length of the trunk to the first branch is 20 feet, and average girth, measured at 6 feet from the ground, is 9 feet. It sells, in Pegu, at 12 annas per cubic foot. Captain Dance says it is abundant in Amherst, Tavoy and Mergui, with a maximum length of 15 feet and maximum girth of 3 cubits : that its timber, when seasoned, floats in water, is useful, durable, and tough, and for ordnance purposes he recommends it for helves. Dr. Gibson tells us that it is not much used on the Bombay side, but that the timber stands the action of water well. As it is generally crooked, he thinks it merits trial for the crooks of boats, corners of carriages, &c. In Ceylon, it is used for the axles of bullock carts and in buildings. Its fibrous bark is used as matches for matchlocks, guns, &c., and in Ganjam, according to Capt. Macdonald, the scant clothing of the byragi and other hindus affecting peculiar sanctity, is made of the fibrous bark of this tree. In Ceylon, a cubic foot of its wood weighs 35 lbs., and it lasts 10 to 20 years. In Ganjam and Gumsur, according to Captain Macdonald, its extreme height is 36 feet, circumference 3 feet, and height from the ground to the intersection of the first branch is 6 feet. Its large greenish flowers are officinal, being given by hindus after childbirth. *Dr. J. L. Stewart, M. D., Wight, Cleghorn, Brandis, Mason, McClelland, Gibson and Riddell, Captains Macdonald and Dance, Major Beenon.* *Roxb.* ii. 638. *Voigt.*

ACREYA SPHÆRICA.

Bambouai. BURM.

This tree, which is almost identical with C. arborea, grows in the Northern Circars in the mountains at Chittagong and at Moulmein. Its bark serves as cordage, and is used as a slow match for guns.—*Dr. Wight. Colonel Frith, Dr. McClelland. Voigt. Roxb.* 63.

CARIARI. HIND. Gloriosa superba.

CARICA, a genus of plants belonging to the natural order Papayaceæ, of which one species, C. papaya, is cultivated in India.

CARICA PAPAYA. LINN.

Papaya vulgaris, *Lam.* | Papaya Carica, *Gœrtn.*

Gadang-castila	BALI.	Papa	MALAY.
Papaia	BENG.	Paupoy.	MALEAL.
Thin-baw	BURM.	Papoia umbbalay maram	,,
Them-baw-thee			
Puppaya	DUK.	Pæpol	SINGH.
Papaw tree	ENG.	Pappali maram	TAM.
Common ,,	,,	Bapaia pandu,	TEL.
Urun khurbuza ?	HIND.	Boppayi,	,,
Papaia	,,	Madana anapa chettu	,,
Arand Kharbuja	,,	Madhurnakam	,,
Kharbuza	HIND.		

This plant is found throughout India, and grows without much care. The fruit is gathered in a green state, is dressed as curry and in tarts, when ripe it is used as a dessert. It contains in its centre dark colored seeds which taste like the water cress. The fruit is large and oblong, suspended upon the leafless part of the trunk, like the jack fruit ; the surface when ripe is a pale orange yellow. A milky juice exudes on incision from the rind, and the rind and seeds are deemed in the Mauritius a powerful vermifuge. Tough meat, rubbed with this juice, becomes tender, without any injurious property being communicated to it. The flesh of animals fed on the leaves and seeds is said also to be remarkably tender, but thus seems unlikely. It is even asserted that dead animals, hung from the branches of the tree, undergo change, in Bengal. Mahomedan table servants use the juice with the view of softening beefsteaks and old fowls. The leaves are used by the negroes in washing linen, as a substitute for soap. As to the anthelmintic virtue of the juice, it has been given in doses of from 20 to 60 drops, without observing any marked effects. Dr. Roxburgh says the leaves are a substitute for soap. Pulp of the fruit eaten with pepper and salt. Juice of the unripe fruit a vermifuge ; contains fibrine ; juice of the pulp removes freckles. Animal food rubbed with the fruit or exposed to its vapour is said to become tender. *Roxb.* iii. 824. *O'Shaughnessy, page. Drs. J. L. Stewart, Ainslie. Mat. Indic. Dr. McClelland. Roxb.* iii. 824. *Voigt.* 83.

CARICAL, OR KARIKAL, a small settlement belonging to France, between Tranquebar and Nagore.

CARICATURE PLANT, or face plant, Justicia picta, the white portions on its green leaves present caricatures of the human face. Riddell.

CARIMATA OR KRAMATA, a high island about 10½ miles long, in lat. 1° 36½' S. long. 180° 54½' E., has a peak estimated from 2,000 to 2,986 feet.—*Horsburgh.*

CARIMON. Two small islands, Great and Little, off the Malay coast, near Pulo Pisang.—*Horsburgh*.

CARIMON, or Java-islands in the Java sea, cover a space of 36 to 39 miles E. and W., and 15 miles N. and S. The largest and highest of these islands are Crimon, Komodian and Parang, which are discernable at a great distance. The flag-staff at Crimon, where is a Dutch settlement, stands in 5° 54′ S., and 110° 31½′ E.—*Horsburgh*.

CARINARIA, a genus of Gasteropod molluscs, species of which are found in Asiatic seas. See Mollusca.

CARIN CHEMBI. TAM. Coronilla picta.

CARIN KULLOO. TAM. Glass.

CARIN SERIGUM. TAM. Fennel flower, Nigella seed, Nigella sativa.

CARISSA CARANDAS, LINN.

Capparis carandas. *Gmel.*		Echites spinosa. *Burm.*	
Kurumchi.	BENG.	Sushenas.	SANS.
Carissa Bush.	ENG.	Areigna.	,,
Jasmine flowered Carissa.		Maha-karomba.	SINGH.
		Kalaka.	TAM.
Bengal currants.	,,	Perin-kalaka pallam.	,,
Wild black karandas.	,,	Pedda kalivi pandu.	TEL.
Kurunda.	HIND.	Oka chettu	,,
Kile	MALEAL.	Vakka, also Vakudu.	,,
Karamurda.	SANS.	Wake.	,,
Karamardaca		Gotho	URIA.
Krishna-pak phula.	,,	Burray Karunday.	

A large thorny bush, cultivated for its fruits which taste when stewed like currants. The plant grows abundantly wild in the Kotah jungles, and in March and April fills the air with the fragrance of its blossom. This plant forms beautiful and impassable hedges. It grows wild in most parts of the Deccan, bearing a dark blue coloured berry when ripe and sold in the bazar. The fruit when ripe is sometimes eaten by Europeans, and in the green state is made into tarts, jellies, and pickles: the jelly is considered inferior to none made of other Indian fruits. This species is a marked exception to the generally poisonous nature of the family. The fruit is about the size of a large olive, and when ripe is black, and has a very pleasant taste somewhat like a damson.—*Ainslie, p.* 230, *O'Shaughnessy, p.* 444. *Med. Top., page* 185. *Mason. Dr. Stewart. Capt. Macdonald.*

CARISSA DIFFUSA. ROXB.

Gau.	HIND.	Gariuda	HIND.
Garna	,,		

This shrub is common throughout the Punjab. Its small white or pink flowers, about April, perfume the air around. The wood is used for combs, and in turnery, &c., and as fuel. A Kangra authority states that the very old wood gets quite black and fragrant, and is sold at a high price as Aggar, or Ud-i-Hindi, an officinal wood generally referred to Aloexylon aggalochum, which is given as a tonic and cholagogue.—*Dr. Stewart.*

CARISSA SPINARUM. LINN. DON.

Chotay Karunday,	DUK.	Chinna Kallivi-pandu	
Karavindi	SANS.		TEL.
Buarucum	SUMATRAN.	Sirru Calaka Pallam	TAM.

This plant grows wild, and its small dark coloured, sweet, pleasant-tasted berry is esteemed by the natives.—*Ainslie, p.* 232.

CARRI-MARRIDDI. TAM. ? A timber of Travancore, of dark colour, 1 to 4 feet in circumference; used by wheel-wrights.—*Colonel Frith.* See Careemaradoo.

CARIVANSARY, See Karavan; Sarai.

CARJURA. SANS. Phœnix dactylifera.

CARJURA-PANDU. TEL. Phœnix dactylifera.

CARLESS, Captain I. N., author of a Survey Report of the mouths of the Indus. *Bom. Geo. Trans. Vol. I.*, 275. Account of a travelling species of Galliator near Kurrachee. *Ibid*, 363. Visit to Beylah. *Ibid*, 304. Memoir on the Gulf of Akaba. *Ibid*, 172. Evaporation in the Red Sea. *Ibid*. State of the Kakewarree mouth of the river Indus. *Ibid*, 876. Account of hot springs at Peer Muggun, near Kurrachee. *Bom. Geo. Trans.* 1840, 16. Remarks on the course of the Hurricane which occurred on the Malabar coast in April 1847. *Ibid*, 1849, *Vol.* VIII., *Part* I, 76. Memoir to accompany the Survey of the Delta of the Indus. *Ibid*, part 3, 328. Account of the Inscriptions on the rocks of Shren Waj. near Jedda, Red Sea. *Bom. As. Trans. Vol. II.*, 273.

CARLI-CAVES, in the western ghats, near the Bhor ghat. See Karli.

CARL RITTER, a German author who wrote on the languages of Asia.

CARMA. SANSK. The name of one of the Kanda or general headings of the Vedas. This chapter relates to "Works," the other two, "Gnyana" and Upashana, relate to "Faith" and worship. See Vidya.

CARMEL, a small range of hills extending six or eight miles inland, in a S. E. direction from the bay of Acre. Mount Carmel is a termination of the chain of hills commencing at the plain of Esdraelon to the south-east, the extent of which is about eight miles. The valley of Martyrs and the garden of Elias are near. The valley of Martyrs is a very narrow dell open to the sea. Carmel has scarcely a tree of any size upon it, is thickly studded with shrubs. The convent of St. Bertoldo stood near the head of the valley. The holy fountain of Elijah is close. The cistern seems to have been hewn in the rock, and is about six feet deep, full of clear delicious water.—*Skinner's Overland Journey, Vol. I., p.* 101. *Robinson's Travels in Palestine and Syria, Vol. I., p.* 196.

CARMENIA or **CARMANIA WOOL**, a kind of goat's hair, brought from Carmania, a country of Asia Minor. *Compendious Description.*

CARMINE.

Karmyn	Dut.	Carminio	It.
Carmino	Fr.	Carminium	Lat.
Karmine	Ger.		

A beautiful pigment prepared from cochineal. See Rouge.

CARMINIO. It. Carmine.

CARMINIUM. Lat. Carmine.

CARNATIC. Its ancient kingdoms were the Pandyon, Chera, Chola, and Calinga. B. C. 75, an expedition left the eastern side of the peninsula, from ancient Calinga, and formed a colony in Java. At present it is a province of the peninsula of India on the Coromandel coast, about 500 miles long from north to south, and averaging about sixty miles broad. In the beginning of the eighteenth century, Sadut Oollah was ruler of the centre of the Carnatic, from 1710 to 1732, and was succeeded by his nephew Ali Dost. Ali Dost was killed in battle against the Mahrattas, and was succeeded by his son Sufdar Ali. Of his two daughters, one married Chunda Sahib. Chunda Sahib seized on Trichinopoly in 1736, but the place was besieged and taken by the Mahrattas, and Chanda Sahib was taken prisoner, and lingered for eight years in prison, where he was murdered by the rajah of Tanjore. Sufdar Ali was assassinated by his brother-in-law Murtuzza Ali, leaving a minor son, but this youth also was assassinated, while Anwar-ud-din was his guardian, and Anwar-ud-Din succeeded to the throne as Nabob of the Carnatic. During the conflicts for supremacy in Hyderabad and the Carnatic, between the French and English, naval and land battles were fought at Damalachery near Madras, at Amboor on the Pennar river, near Gingee, at Valconda on the Arni, at Cauverypauk, at Vicravandi Bahur, at the Golden rock, Sugar rock of Trichinopoly, and at Wandewash, also off Negapatam, Tranquebar, and at Fort St. David. Anwar-ud-din when about one hundred years old fought and fell at the battle of Amboor, in 1749, his son Mahomed Ali fled to Trichinopoly. After the defeat of the French in the Carnatic, Mahomed Ali, son of Anwar-ud-din, succeeded to the throne, and was recognised by the treaty of Paris in 1763. From that time till his death in 1795, the Carnatic was occasionally under his rule, and at times under the Civil and Military administration of the British. In 1795, he was succeeded by his eldest son, Oomdat-ul Umra, who died in 1801, when the British put aside *Oomdat-ul Umra's son, and placed his nephew* Azim-ud Dowlah on the throne. The British in 1856, on the demise of Mahomed Ghous, grandson of Azim-ud-Dowlah, finally abolished the titular Nabob, from which followed long efforts to seat the second son of Azim-ud Dowla. The people of the Carnatic are of the Dravidian stock, and speak the Tamil and Teluguoo languages.—*Malleson's French in India.* See Caroor.

CARNATIONS. Dianthus caryophillus. These pretty flowering plants embrace about 130 species, besides a host of florist's varieties.

CARNELIAN. Quartzoze gems so called, because some kinds are of a flesh colour, from Carnis, Latin, for flesh; others are white. In Japan they exist in vast quantities, and they are also collected in the province of Guzerat, at Cambay. Many of the antique gems are engraved in carnelian, and it is now much used for seals. Carnelian is very common in Burmah, and has been found at Moopoon and Mergui. One of its Burman names means "Fowl's blood." See Cambay stones.

CAR-NICOBAR, the most northerly of the Nicobar Islands. See Nicobar.

CARNIVAL. It. A festival of Italy held in honour of Carneus, the sun. See Sun.

CARNIVORA, a family of the mammalia constituting flesh-eating animals. They include the genera felis, hyæna, cuon, canis, vulpes and others.

CAROLINAS, an extensive chain of islands which stretch nearly east through the middle of the Pacific ocean, betwixt the parallels of Lat. 7° to 10° N.

CAROOKUVA ELLY. Tam. Leaf of Zizyphus trinervus.

CAROONUCHI. Tam. Gendarussa vulgaris.

CAROOR, in L. 78° 9′ E., & L. 10°50′ N. has a strong fortress, 50 miles from Trichinopoly, on the bank of the Cauvery. It was the capital of the ancient Chira kings. See Carnatic.

CAROXYLON GRIFFITHII. Moq.
Salsola Griffithii.

Lagkame	Hind.	Khar	Hind.

A Central Panjab plant, furnishes by lixiviation some of the sajji or carbonate of soda of commerce. *Stewart.* See Carbonate of Soda.

CARP, the genus cyprinus of fishes. The gold carp of China is the Puntius (cyprinus) auratus.—*Linn.*

CARPENTER BEE. Xylocopa tenuiscapa, *Westw.* Another species found in Ceylon is the X. latipes. *Drury. Tennent's Sketches of the Natural History of Ceylon,* p. 418. See Bee, Beetle. Xylocopa.

CARPENTERS are one of the five hindu artizan castes of India, and wear the poitu or onar. They do not reverence brahmins, but worship chiefly Visvakarma, the artificer of the hindu gods. Those of Travancore follow the law of descent by the sister. See Hindoo Poitu; Polyandry.

CARPETS.

Galim	Ar.	Kalasa	Malay.
Zuli	"	Xatifah	"
Tapyten	Dut.	Ghalichah	Pers.
Vloer-tapyton	"	Kowru	Rus.
Tapis	Fr.	Kilimi	"
Teppiche	Ger.	Alfombras	Sp.
Sutrunji,	Guz.	Alcitifas	"
Shatranji	Hind.	Tapetes	"
Tappeti	It.	Jam'kalam	Tam.
Parmadani	Malay.	Jamcana	Tel.
Prangmadani			

A variety of carpets are made in different parts of India, both of cotton and wool. Climate influences every thing relating to the clothing or habitation of man, and coverings for the floor are necessarily included. In a cold, wet climate, it is hardly possible to use the floors of rooms without some kind of covering; and therefore we read in earlier times, of the floors in Europe being covered with straw, rushes, hay, or heather. In warm countries, on the contrary, it is more the habit to sit in the open air under the shade of trees, and it is there desirable to have some covering, over the sandy or dusty earth, either to sit or lie down upon. It is not surprising therefore, that the invention of carpets should have originated in Eastern countries. Mats are the most agreeable in hot weather; and for these, India is famous, as well for their variety as for their fineness of pattern. Carpets, either of cotton, silk, or wool, are employed in all Eastern countries, from the south of India to Turkey in Europe, for praying on, and for occasions of state. The carpets employed by the ancients are thought to have been of the nature of tapestry, and used for covering couches rather than floors. True carpets seem to have been first employed in Persia; and those called Turkish were probably originally of Persian manufacture, whence the manufacture might have been introduced into Turkey, and where, as well as in Egypt, it is still practised. The Persians still remain unrivalled in the happy combination of colour and pattern for which their carpets have long been distinguished, whence the most varied hues and deepest tints are brought into close approximation, and, far from offending the eye, please by their striking, because harmonious contrasts. The places, in India, where a regular manufacture and trade are carried on, are Benares, Mirzapore, Allahabad, and Gorruckpore in Bengal; North Arcot, Tanjore, Ellore, and Malabar in the Madras Presidency; and also at Mysore, as well as at Shikarpore, Khyrpore, and Hydrabad in Sind. Those of Bengal commend themselves by extraordinary cheapness; they are extensively used throughout India, and also somewhat largely exported. In point of texture and workmanship, however, the rugs from Ellore, Tanjore, and Mysore, though they are comparatively much dearer, are greatly preferred. The carpets of India are made either of wool and cotton, and almost all in use are manufactured in India. The carpets of Kermanshah are a manufacture which adds much to the wealth of its province: none can be more rich, soft and beautiful. Persian carpets are made also at Meshed, and in Turkomania and Khorasan, and are justly celebrated for the beauty of the patterns, the fineness of the wool, and the durability of the colours—vegetable dyes, a green not made elsewhere, conjectured to be saffron and indigo. Some of them fetch high prices as £6 or £8 for one of 2 yds. square in the country itself. The finest are made at Sena, and there is a famous manufacture carried on at Ferahoun, near Teheran, which belonged to the late sirdar Baba Khan. Carpets of any size can be made there. The finest carpets of all used to be made at Herat, and there are some splendid ones in the Chăhăl Minar, at Ispahan, one of which was 140 feet long and 70 feet wide. Large numbers were exported to England through Trebizonde before the late war, and they were sold nearly as cheap in London as in Persia, owing probably to the course of trade. Persian and Turkey carpets, as has been said, are most esteemed, but those made in Axminster, Wilton, and Edinburgh, are believed to be very little, if any, inferior to those of Persia and Turkey. Though printed calicos of large size, and suitable patterns are sometimes used for covering the floors in India, yet the most common carpets employed there are those made of cotton, and shatrunjees of different colours, usually blue and white, in red or orange stripes, squares, or stars; some of large size, and well suited for halls and tents. They are thick and strong in texture, the two surfaces alike, smooth and without pile. They are manufactured in different parts of India, at Moorshedabad, Rungpore, Agra, &c., and at many places in the Madras presidency. Another kind of cotton carpet is that with a pile of cotton, and similar in appearance to a Turkey carpet, manufactured at Sasserim,—white with a centre and border of blue—and they are made with every variety of coloured pattern also in the Hyderabad country. Silk is another material of which carpets are made in the East; and the pile being of silk, imparts both softness and richness to the surface, while the colours are clear and brilliant. They are beautiful as specimens of variety in pattern, brilliancy in colouring, as well as of pleasing harmony in the whole. Silk carpets, of small size, are made in Tanjore, Hyderabad, and Khyrpore. Woollen carpets, of large size, and of beautiful and well-coloured oriental pattern, are made at Mirzapore and Gorukpore, and many parts of Madras. The former is most famous in India for its carpets, which are frequently sold in Britain as Turkey carpets. The rugs from Ellore are universally admired for their general characteristics of oriental pattern and colouring; and these, as well as the large carpets from Mirzapore, all in the same style, seem well adapted for sale in Europe. At the Madras Exhibition of 1857, there was a large display of carpets and rugs, the manufacture having been brought to considerable perfection in several parts of Southern India. There were four distinct branches in these contributions; 1. The imitation Axminster, or close nap woven carpet; 2. The short velvet pile or tapestry carpet and woollen rug; 3. The long velvet pile or imitation Turkey carpet; 4. The silk or velvet pile carpet. Of the Axminster carpet, there were some very good specimens of close nap carpets from Warungul, the colours clear and bright, but a sameness in the patterns. The carpets were strong, soft, and very close in the weaving. The chief of the manufactures, and the only one for which Warungal is famed, is that of Persian carpets, which are made of all sizes and of worsted, cotton, or even of silk. The weavers are all mahomedans and are congregated principally at Mutwarrah, although there are a few looms within the Warungal fort. [illegible] weavers are drunken, turbulent, ignorant mahomedans, possessing no capital, and dissipating in excess the little money they may procure on accomplishing a piece of work. Carpets chiefly of a small size, about two yards long and a little more than a yard in breadth, are made for the Hyderabad market, money being advanced to the weavers by the dealers there. A worsted carpet of this size and shape costs at Warungul from Rupees 2¾ to Rupees 2½. A cotton carpet is twice the price of a worsted one. A silk one is very highly priced. A common trick among these weavers is to substitute hemp for worsted. Of the Velvet Pile Carpets, some large and creditable specimens were exhibited from Ellore and Tanjore. The former were closely woven, bright, and harmonious in color, and the patterns more varied than those from any other locality. Some of the rugs from Tanjore were also very tasteful. The long velvet pile, or Turkey carpet, was but poorly imitated at Bangalore and Trichinopoly. There was considerable variety and boldness in the patterns of these carpets, but the wool was dirty and coarsely dyed and the weaving loose. The carpets are cheap, but it was doubtful if they would wear well as the wool seemed to be easily pulled out.—(*Madras Exhibition Juries Reports.*) At Iyempettah in Tanjore, they make very handsome carpets of silk. In Southern India, the cotton carpets used for tents are made at Cumbum, Rajahmundry, and other parts, the price being under one rupee the square yard. They are generally in broad stripes of red and shades of blue. Small carpets of this description are produced in almost every district, and are used by sepoys and others for sleeping on: they are somewhat less in price in proportion than the larger ones. Carpets of a small description, woven with wool, in stripes on a stout cotton web, are made at about the same cost. Mr. Rhode has no doubt but that a fabric, woven like striped cumbly in sufficient lengths would sell for carpeting in the colonies, as it could be sold at one-fourth the price of English carpets, and would be well suited to the colonist's wants. Silk carpets are made in Ramnad and at Tanjore.—(*Rhode MSS.*) The best rugs and carpets are produced at Ellore, the better descriptions varying in price from 2½ to 4 or 5 Rupees a yard; they are of dyed wool upon a cotton web, the colours being arranged much in the same manner as a printer's composer sets up type; the colours are not so bright as those given in Europe. Commoner descriptions of the size of small hearth rugs, are exported thence to England and Persia. Carpets of an inferior description are produced in Mysore, North Arcot collectorate, and other parts. Dr. Walker in the Asiatic Journal, No. 113, gives the following description of carpet weaving at Hunumcoonda, which is generally applicable. "The carpet loom is nothing more than the common native loom placed vertically instead of horizontally. The waft is of thick strong cotton twist, being arranged by no wafting mill, but by one of the workmen going round and round two stakes fixed in the ground, and dropping the thread at each as he passes; in the loom it is kept on the stretch by two strong billets of wood, the threads being attached by separate loops of cotton fixed to a bamboo, which is elevated or depressed at the will of the weaver. The worsted is held in the left hand, and a crescent shaped knife in the right, the fingers of both being left free. The inner thread of the waft is then seized, the worsted wound round the outer, crossed on itself, and the extremity drawn out, by which it is made to descend in the form of an open figure of eight to be snipped by the curved knife. It is superfluous to say that this is the work of an instant. When the pattern is new or difficult, the order and position of the worsted threads is changed by a reader in a kind of rhyme. On a row being completed, the warp, in the shape of a cotton thread, dyed dark brown by the bark of the Swietenia febrifuga, is forced down by means of an iron toothed comb, in form something like an adze; the whole is completed by cutting the worsted to its proper length by large scissors held steadily against the waft. Infant labour is employed and preferred in Warungal carpet weaving, it being averred that their more limber finger joints are best fitted for the finer parts of the work. Dried sprigs of Toolsee (Ocimum sanctum) and bunches of Lepidigathis indica are attached to the loom frames; the workmen say that these make their labour go on more cleverly. Twelve different worsteds are employed. The *blue* is produced from indigo, the *yellows* and the *sulphur yellow*, from boiling the sulphur yellow in water impregnated with carbonate of soda, in which a little turmeric has been mixed; the deepest yellow is produced by dipping the same in the potash ley. The *reds* are all produced by lac dye dissolved by tamarind juice with sulphate of alumina and potash as a mordant. The depth of colour depends in three cases upon the original black, brown, or white colour of the wool; in the fourth, on the length of time the last description of wool was allowed to remain in the dye. The greens are produced by immersion in indigo, and then in pulas or turmeric; their degrees also depend on the original colour of the wool. Bengal Indigo is always preferred to the home manufactured by the worsted dyers. Cotton carpeting is also prepared in the same way as the woollen. As a general rule, the lighter worsteds wear the longest. The red seems to render the wool brittle, and some destructive agent seems to be employed in preparing the wool. If the weavers would be induced to wash the wools thoroughly with soap, both before and after dyeing, the carpets would probably be far more desirable. Messrs. Watson and Bell of Broad Street have lately imported into England the Ellore carpets, furnishing flax for the web which, at an additional cost of about 8 annas a yard ensures a very superior article. By offering high rates for superior articles, they have done much to improve the manufacture. Contrary to Mr. Rhode's expectation, they find it best to purchase none of inferior quality, the charges, probably, precluding their profiting by the common but generally bulky articles. The Indian cotton carpets most commonly met with are blue, red, and white. Some few made of cotton and silk for great potentates, are extremely beautiful. The chief places in Northern India in which carpets are manufactured, are Lahore, Meerut, Bareilly, Jubbulpore, Gorruckpore, Mirzapore, Rungpore and Benares, in the Presidencies of Bengal, the North-west Provinces, and the Punjab. At Jubbulpore, the manufacture of carpets, rugs, and shatrangees (cotton carpets), has been regularly carried on for years, chiefly in jail. The Jubbulpore carpets are considered of extremely good texture, and are remarkable for their cheapness. Their prices are as follows:

Turkey carpets. 4 Rs. or 8*s.* 0*d.* per sq. yard.
Scotch carpeting 1 „ 8 As. or 3*s.* 0*d.* per yd.
3 feet wide.
Shatranjees 1 Rs. 2 As., or 2*s.* 3*d.* per sq. yd.
Kidderminster 1 „ 2 „ or 2*s.* 3*d.* per yard.
1 yard wide.

The places which supply the greater portion of India, as well as the export demand, are Gorruckpore, Mirzapore and Benares. There is no specific price per yard, as carpets both at Mirzapore and Benares are generally sold at so much a piece. The Mirzapore carpets are noted for excellent staple and durability of wear, but are dearer than those from Jubbulpore. The manufacture of rugs is very extensive, and comprises many localities. At Peshawur, Bareilly, Shahpore, Sealkote, and Sirsa, the manufacture is entirely confined to the jails.

The use of rugs throughout India is extensive, every native who can afford to purchase one uses it to sit upon and smoke his hookah. The rugs made in Bengal vary in length from 3 to 3½ feet, their average width being 1¾ feet, and their value from Rs. 1 to Rs. 1-10. The rugs from Ellore, Tanjore, and Mysore are made of various sizes and are valued from Rs. 2 to Rs. 4 each; those from Shikarpore and Kyrpore, as well as from Hydrabad (Sinde), are of a lighter texture, but excellent workmanship; their width is generally uniform, but in length and consequent cost they vary from Rs. 2 to Rs. 5 each.

The finest articles of this description, however, are the silk rugs from Tanjore and Mysore, the blending of colours and workmanship being excellent. They are made of all sizes, even up to squares of 10 feet; but being too costly for general adoption, this manufacture is very limited. Carpet making is not a trade in which European manufacturers are likely to enter into competition with Indian weavers; but were the patterns and disposition of colour in the native articles better known, many useful lessons might be learned from them. Woollen carpets are rarely used by hindus, and the manufacture is, seemingly, entirely confined to mahommedans.

Shatrangees, or cotton carpets, are entirely made of cotton, they are used by every European or native throughout India, and the annual manufacture is consequently very considerable, especially in Bengal, where they form a large and important branch of inland trade. They are of all sizes, from that of the largest carpet to the smallest rug, but generally of one and the same pattern throughout India, the only difference being the colour. Blue and white, and red and white stripes constitute the prevalent patterns, but, in some, one colour of darker and lighter hues is employed. In Meerut, Bareilly and Patna, new patterns have of late been tried with considerable success, but though preferred by the Europeans, are not so by natives, who like the striped patterns, because they wear better in daily use, and do not lose the freshness of colour by washing. The principal localities where shatranjees are manufactured are Agra, Bareilly, Patna, Shahabad, Beerbhoom, and Burdwan. Those manufactured at Agra are considered the best, and the value of its annual production is about £10,000. In Shahabad, the quantity manufactured one year was nearly £7,000 ; and the same may be assumed to have been produced in the other places abovementioned. Shatrangees vary in price according to size and quality. The small ones are valued from 3*s.* to 15*s.*, and the larger ones (carpet size) from £1 10*s.* to £4., the price in many cases being regulated by weight.

The Shahabad rugs are made wholly of cotton, and are almost invariably striped ; they are cool and pleasant, and are in invariable use by the better class of natives, and by all Europeans. The smaller kinds are used as quilts for beds, and of late the Government has given them to its European soldiers for that purpose. The manufacturers, called in this district Kalleeum Bap, are almost invariably mahomedans, who will make carpets of any size and pattern given, in stripes. The two local seats of manufacture in Shahabad are Bubbooah and Sasseeram. In the former place, from 10,000 to 12,000 Rupees worth are yearly manufactured and sold, and in the latter from 30,000 to 40,000 Rupees. These dhurree, or carpets, are sold readily in all the bazaars around, and at all the neighbouring fairs, particularly at Berhampore and Hurrier, Chutter, or Sonapore; probably two-thirds of the whole quantity made are exported from the district, while the annual expenditure in the district will vary from 20,000 to 25,000 Rupees worth per annum.

The dhurree is the name of the carpets generally made for sale, and are of four kinds : six yards long, and two yards broad, thick and strong, of any colour, and are sold at from six rupees to six rupees eight annas. A small kind used as quilts, weigh from two to three pounds each, and are 1¼ to 1½ yards broad, by about two yards long ; they sell at from 14 annas to 1 rupee 8 annas each, according to thickness and quality. The Hauzhassica is the name of the better kind of carpet, and often displays much taste in the arrangement of the striped colours. It is made of any size to fit any room, and is always sold by weight. The price varies according to quality, from one rupee four annas to one rupee twelve annas, and sometimes as high as two rupees four annas per seer. It is sold in all the fairs, and in all the large cities around, such as Patna, Ghazeepore, Daadnuggur, Gyah, &c. No merchants' or bankers' shop, or rich natives' reception room, is complete without these being spread. This is the kind generally used by Europeans for their drawing and public rooms. The fourth is a small kind of carpet made for use in zemindaree and other small cutcherries, and much used from its portability. It is from three to four yards long, and from one and a half to two yards broad, and sells at fron 3 Rs. to 4 Rs. each carpet. It is generally made from five colours, from which cause it obtains the name of Dhurree Panch Rungha.

Galeecha carpets are only manufactured in Sasseeram, and are almost always woollen, of florid but neat patterns, in imitation of the Persian carpet. They are used to a considerable extent by the rich natives in their zenanas, but by Europeans also. The size usually manufactured is two yards long by one yard broad, and they sell at from two Rs. to four Rs. eight As. per carpet. Any other sizes and patterns can be made according to order, and some of the patterns are extremely pretty.

The European carpet manufacturer could not compete with these as to price and actual value, as the wool costs but little in India, and the native dyes answer admirably for the purpose, while also the coarse local wools, which would not pay for exportation, answer for carpet work. The colours are harmonious, and there is but little doubt that it would pay any enterprising merchant to export these to Europe. The annual manufacture at present in Sasseeram is about 10,000 to 12 000 Rs.

Another kind, in imitation of the above, but wholly of cotton, is also made, prices nearly the same. The patterns are pretty, but they rapidly become spoiled by dirt and dust. They are invariably made of only two colours, blue and white, ornamental carpets of thread with a woollen, and sometimes with a silken pile, are made up in Mooltan, Peshawur, Umritsur, Bhawulpore, and Kashmere. Those of Mooltan are perhaps most celebrated. *Dr. Watson's Report. Mr. J. Rhode, MSS.*

Colonel C. Davidson in Report of Hyderabad Committee. Baron Clement A. De Bode Bokhara and its Amir., p. 224. *General Ed. Ferrier's Journal, p.* 26.

CARPILIUS CORALLINUS, Leach.

Cancer corallinus, *Linn.*

A crab of the Asiatic seas.

CARPILIUS MACULATUS, Leach.

Cancer maculatus, *Linn.*

The blood-spotted crab of Asiatic seas.

CARPINUS VIMINEA.

Hornbeam. Eng. | Cham Khurnk. Punjab.

This is found in Nepaul and the Sutlej valley between Rampur and Sungnam, at an elevation of 5500 feet. Wood esteemed by carpenters.—*Cleghorn, Punjab Report, p.* 64.

CARPOBALSAMUM. An inferior quality of opobalsam, obtained by expression from the fruit of Amyris Gileadensis when the fruit is at maturity. The carpobalsamum of the ancients was from the fruit of Balsamadendron gileadense, *Kunth*

CARPOO COONGILLIUM. Tel. Black dammer.

CARPOON. Eng. Cynara cardunculus.

CARPOORUM. Tam. Tel. Camphor.

CARPOO ULANDOO. Tam. Black variety of Phaseolus max.

CARPOHAGA. A genus of birds of the family Columbidæ. See Aves, Birds.

CARPOPHAGA OCEANICA, one of the nutmeg pigeons; many of both sexes are furnished with a large, round, fleshy caruncle on the bill at the base of the forehead: this is said to be present during the breeding season only.—*Macgillivray, Voyage, Vol.* 1., *p.* 244.

CARPOPOGON GIGANTEUM, Roxb. also C. Pruriens. *Roxb.* Syn. of Mucuna prurita, *Hook.*

CARR, Major M. W., of the Madras army, author of Telugu Proverbs.

CARRIABOOLUM. Tam. Aloes.

CARRAY KEERAY. Tam. Webera tetrandra.

CARROO MARUDA. Tam. Pentaptera tomentosa.

CARROT, Eng.

Jezer.	Ar.	Gajra.	Hind.
Istuflin.	„	Daucus carota	Lat.
Staphulinos. Gr. of Dios.		Zirduk.	Pers.
Gajur.	Hind.	Carrot Kalung.	Tam.

The red and yellow carrots are cultivated all over India as a vegetable.

CARROT KALUNG. Anglo-Tam. Daucus carota.

CARRUWA PUTTAY. Tam. Cinnamon.

CARTA. It. Paper.

CARTACEYA. See Carticay. Kartikeya.

CARTER, Dr. Henry John, M.D., a medical officer of the Bombay army, a large contributor to current literature in the Tr. Med. Phys. Soc., Bombay, No. 8. Medical Gazette 1839. Jour. Bomb. As. Soc. Ann. and Mag. Wrote on the prevalence of intermittent fever among the troops at Hyderabad in Sind during the autumn of 1846. *Beriberi* among the Marines of the Indian Navy on board the H. C.'s Surveying Vessels "Palinurus" and "Nerbudda." Rupture of the Heart. Case of poisoning by ipium, and passage of mud into the bronchi in drowning. Medical History of the Central Schools of Bombay for the five years ending 1st July 1852. *Dracunculus* in the Island of Bombay. Medico-legal cases.

Colors of the *Tupetum* depending on structure, not coloring matter. Medical Anatomy of *Culex pipiens*, common mosquito. Animality of the freshwater sponge. Description of the freshwater sponges in the tanks of the Island of Bombay. On the red colouring matter of the Salt-pans in the Island of Bombay. On the form and structure of *Operculina Arabica.* Zoosperms in Spongilla. Development of Gonidia (?) from the cell-contents of the Characeæ, with observations on the circulatory movement of the mucus. On the conjugation of three species of Diatomeæ, with remarks on *Amphiphora.* Abstract of notes on the organization of the freshwater infusoria of the Island of Bombay. On the development of the root-cell and its nucleus in *chara verticillata.* Observations on the alluvium, with figures of Eocene fossils about Hydrabad in Sind. Report of the copper-ore and lithographic limestone on the south-east coast of Arabia. Geology of Muskat and of the S. E. Coast of Arabia. On the organization of the foraminifera and their fossil remains in the Poor-bunder limestone of Kateyawar, &c. Geology of the Island of Bombay. Pleiocene deposits on the shores of the Arabian Sea. Descriptions of some of the larger forms of fossil foraminifera in Sind. Description of Orbitolites Malabarica. Structure of fossil Alveolina. Notes on the *Gurrah* of the South-east coast of Arabia. On the *Great Mahrah* tribe of ditto, with vocabulary of their language. Description of the Frankincense tree of Arabia, with remarks on the misplacement of Ptolemy's Sibanophorous region. Geography of the South-east coast of Arabia, modern and ancient. Description of the ruins of El Bellad on the South-east coast of Arabia.—*Trans. Geograph. Soc Bomb. Vol. VII,, p.* 225, *Jour. Royal Geograph. Society. Vol. XVI. part* 2, *p.* 187.

CARTES MARINES. Fr. Chart.

CARTHAGE, was built B. C. 813 or 814. The Carthaginians were a Semitic race. Their descendants are supposed to be the Moors who occupy the north of Africa, lowlanders, traders, and dwellers in cities, little idle men who grow fat from indolence, avaricious, perfidious, cowardly, cringing and insolent. See Infanticide, India 314. Semitic Races.

CARTHAMIC ACID, Carthamine, Carthamous acid. See Carthamus tinctorius.

CARTHAMUS OXYACANTHA. Bieb.

Kantiari,	Hind.	Poli,	Hind.
Kandiara,	„	Khareza,	„

Abundant in many of the more arid tracts of the Punjab. The seeds are eaten parched, either alone, or with wheat, or are ground and mixed with wheaten flour for bread, as also are those of C. (or Onobroma) Persicus. The oil extracted from the seeds is burned in lamps, used in food and medicinally.—*J. L. Stewart. M. D.* See Dyes.

CARTHAMUS TINCTORIUS, Linn. *Roxb.*

Crocus Indicus, *Rumph.*

Usfar,	Ar.	Kamalottara,	Sans.
Kajireh,	Beng.	Kusumbha,	„
Kusum,	Duk, Hind.	Coossumb,	Sing.
Hsoo,	Burm.	Sendurgam.	Tam.
Kortom,	Egpt,	Agnisikha.	Tel.
Safflower,	Eng.	Kusumba chettu,	
		Kusama,	

The seed.

Kardoo seed.

The safflower is grown very abundantly all over India. The plant is propagated by seed sown in drills at 1½ feet distance from each other. The young plants appear in about a month, and after the second month are hoed and thinned, each plant being left a foot from the other. The richer the land, the larger the proportion of colouring matter afforded by the flower. On the opening of the flowerets, they are rapidly gathered without being allowed to expand fully. They are then dried in the shade with great care. The produce of Paterghauta and Belispore is considered, in the London market, as the best that is exported from India. The Dacca safflower ranks next to that of China, which is reputed to be of a superior quality. Safflower is widely grown on the banks of the Irawaddy, and may be occasionally seen on the banks of the Salwen. Its flowers furnish the best yellow dye in the country, and, mixed with other ingredients, they are used to dye red, and to give a variety of tints and in dyeing pink and scarlet. The yellow principle is worthless as a dye. It is soluble in water, is removed by washing, and thrown away as the first step in the preparation of the valuable red product. The red dye is an acid resinous substance of superb colour, insoluble in water and in acid solutions, little soluble in alcohol, and not at all in ether. It is dissolved freely by aqueous alkaline solutions, which it neutralizes. Its salts (carthamates) are crystalizable, and quite colourless; acids precipitate the carthamic acid from solutions of these salts. To obtain it on large scale, after the separation of the yellow matter, the dried flowers are treated by a solution of carbonate of soda, and lemon juice added; the carthamic acid precipitate is collected by subsidence, washed, and carefully dried at a gentle heat. The most lovely tints are imparted by this dye, to silk and cotton; rouge is a mixture of the dry carthamic acid, and finely powdered talc. The pink saucers used for giving a flesh tint to silk are prepared from this dye with a small portion of soda. 8 oz. of the prepared petals, and 2 oz. carbonate of soda are acted on by 2 gallons of water. 4 lbs. of prepared chalk are added, and the colour precipitated upon this by citric or tartaric acid. The Chinese card-rouge is a carthamate of soda, colourless when rubbed on, but by the salt being decomposed by the acetic acid secreted by the skin itself, the carthamic acid separates in the most perfect rosy tint which can be imagined. The seeds yield abundance of fixed oil which is used as an external application in paralytic affections, and for bad ulcers; and small seeds are reckoned by the Vyteans amongst their laxative medicines. The dye of the "Kong-wha," a variety of safflower or carthamus tinctorius, which grows in China, is held in high esteem by the Chinese, and is used in dyeing the red and scarlet silks and crapes which are so common in the country, and so much and justly admired by foreigners of every nation. Large quantities are annually produced in the Che-kiang province near Ningpo.—*Ains. Mat. Ind. p.* 195. *O'Shaughnessy, p.* 411. *Drs. Mason, McClelland.*

CARTICAY, or Cartiga, in hindu astronomy, the seventh hindu solar month, when the sun is in the sign Tula, answering to the Tamil Arpesi. In the southern parts of the peninsula the Tamil month Cartiga is the eighth of the solar year. Lastly, Carticay is also the eighth lunar month of the Luni-solar year. This month is peculiarly sacred to *Lacshmi*, the goddess of wealth, the *Juno Moneta* of the Romans. The 13th is called the *Dhunterus*, or thirteenth day of wealth, when gold and silver coin are worshipped, as the representatives of the goddess, by her votaries of all classes, but especially by the mercantile classes. On the 14th, all anoint with oil, and make libations thereof to *Yama*, the judge of departed spirits. Worship ("*Pooja*") is performed to the lamp, which represents the god of hell, and is thence called *Yamadewa*, the lamp of Yama; and on this day partial illuminations take place.—*Tod. Warren, Kala, Sanhita, Cole. Myth. Hind. p.* 379. See Kartikey.

CARTISMANDUA, a queen of the ancient Britons. See Polyandry, 106, 107.

CARUM CARUI, *L.*

C. Gracile. *Bth.* | C. Nigrum. *Royle.*

Curwiya	ARAB.	Gunyun	HIND: of LAD.
Caraway	ENG.	Umbu	„ of PUN.
Jira siyah	HIND.		

Carum carui and C. gracile, if distinct, both grow in profusion in many of the more arid tracts on the Sutlej, Chenab, &c., in Kashmir, and in western Tibet, from 9,000 to 14,500 feet.—*Dr. J. L. Stewart.* See Carroway.

CARUN JOOTY. CAN. See Oil.

CARUN SEERAGUM. TAM. Fennel flower. See Oil.

CARUTA. See Dyes.

CARVI. IT. Caraway seed.

CARVI : CUMIN DES PRES. FR. Caraway seed.

CARVING, in wood, horn, and ivory, must have been practised in India from very early times, for the idols which they worship, and for calico-printing, for which they have long used wood-blocks. They are fond of carving many of their ordinary utensils as spinning-wheels &c. ; but their skill, according to European taste, is shown in carving the blackwood and ebony furnitures of Bombay and Madras, especially in the elegance of the patterns of the backs of the chairs and sofas, in the side-boards and book-cases. Such furniture is well adapted for even the best English houses. Carvings in ivory in different parts of India are much to be admired, whether for the size or the minuteness, for the elaborateness of detail or for the truth of representation. Among these the ivory carvings of Berhampore are conspicuous. A set of chessmen from India, at the Exhibition of 1851, carved from the drawings in Layard's "Nineveh," were excellent representations of what they could only have seen in the above work ; and showed that they are capable of doing new things when required ; their representations of an elephant and other animals were true to nature. The carvings in the same material in the state chair from Travancore were greatly admired, and for the truth of representation on a minute scale, where an elephant was enclosed in the shell of a pea, Chouries, or fly-flappers, from Calicut, where the ivory, or sandal-wood, is cut into long hair like threads, are also specimens of their mechanical skill. Their skill in wood-carving was conspicuously displayed in the elaborate details of the sandal-wood boxes from the Malabar coast. The skill of the Indian carver is also conspicuously shown in the beauty of the figures and buildings in the pith like stems of the marsh-plant called shola (*Æschynomene aspera.*) In the latter all the elaborate detail of the richly ornamented hindoo architecture of the South of India is carefully brought out. For this work only two tools seem to be employed,—one a large and heavy knife and one with a fine sharp cutting edge. Besides these, cocoanut shells and gourds are carved and made into cups, vases, and snuff-boxes, also the kernel of the cocoa-nut is variously cut, for making garlands for state occasions. The natives of India display great skill and neatness, as well as habitual taste, in their work (and other) boxes of ivory, horn, or porcupine-quill, ebony and sandal-wood, their fans and umbrellas, chouries, and khus-khus or other baskets, hookah-snakes, imitation fruits and flowers, toys, and puzzles. The skill is remarkable with which the unyielding substance of a hard thick shell is converted into necklaces for men and into bracelets for women. The manufacture of shell bracelets is one of the indigenous arts of Bengal, in which the "Sankari" caste at Dacca excel. The *chanks* of which they are made are the large species of Turbinella, from six to seven inches long, and of a pure white colour. They are imported into Calcutta from Ramnad and South India, opposite to Ceylon, and from the Maldive Islands. *Ivory* for Chinese carvers comes to China principally from Cochin-China and Africa, via Bombay, and always finds a ready sale at Canton ; the largest and best tusks weigh from 16 to 25 pounds each, decreasing to five or six pounds. The cuttings and fragments also form an article of trade, as the workmen can employ the smallest pieces. *Bones* and *horns*, especially the long horns of buffaloes, are in China worked into handles, buttons, &c. Rhinoceros' horns are brought from Burmah, from Sumatra, and from Africa through Bombay ; they are highly valued by the Chinese from a notion that cups made from them sweat whenever a poisonous mixture is poured into them. A perfect horn sometimes sells as high as $300, but those that come from Africa do not usually rate above $30 or $40 each. The principal use of these horns is in medicine and for amulets, for only one good cup can be carved from the end of each horn ; and consequently the parings and fragments are all preserved. The hard teeth of the walrus, lamantin, and other cetaceous animals, also form an article of import into China from the Pacific, under the designation of *seahorse* teeth ; they weigh one or two pounds a piece, and the ivory is nearly as compact, though not so white, as that of the elephant. The delicate carving of Chinese workmen is well known, and has often been described ; many specimens of it are annually sent abroad. Few products of their skill are

more remarkable than the balls, containing ten or twelve spheres cut out one within another. The manner of cutting them is simple. A piece of ivory or wood is first made perfectly globular, and then several conical holes are bored into it in such a manner that their apices all meet at the centre, which is usually hollowed out an inch or less after the holes are bored. A long crooked tool is then inserted in one of the conical holes, so bent at the end and stoppered on the shaft that it cuts the ivory at the same distance from the surface when its edge is applied to the insides of the cone. By successively cutting a little on the insides of each conical hole, their incisures meet, and a sphericle is at last detached, which is now turned over and its faces one after another brought opposite the largest hole and firmly secured by wedges in the other holes, while its surfaces are smoothed and carved. When the central sphere is done, a similar knife, somewhat larger, is again introduced into the holes, and another sphere detached and smoothed in the same way, and then another, until the whole are completed, each being polished and carved before the next outer one is commenced. It has been supposed by some that these curious toys were made of hemispheres nicely luted together and they have been boiled in oil for hours in order to separate them and solve the mystery of their construction. Fans and card-cases are carved of wood, ivory, and mother-of pearl in alto-relievo, with an elaborateness which shows the great skill and patience of the workman, and at the same time his bad taste in drawing, the figures, houses, trees, and other objects being grouped in violation of all propriety and perspective. Beautiful ornaments are made by carving roots of plants, branches, gnarled knots, &c., into fantastic groups of birds or animals, the artist taking advantage of the natural form of his materials. Models of pagodas, boats, and houses are also entirely constructed of ivory, even to representing the ornamental roofs, the men working at the oar, and women looking from the balconies. Baskets of elegant shape are woven from ivory splinths; and the shopmen at Canton exhibit a variety of seals, paper-knives, chessmen, counters, combs, &c, exceeding in finish and delicacy the same kind of work found anywhere else in the world. The most elaborate coat of arms, or complicated cypher, will also be imitated by these skilful carvers. The national taste prefers this style of carving on plane surfaces; it is seen on the walls of houses and granite slabs of fences, the woodwork of boats and shops, and on articles of furniture. Some of it is pretty, but the disproportion and cramped position of the figures detracts from its beauty. Burmese carpenters carve in a rough but bold style and find employment principally in carving for the exteriors of monasteries. The ivory carvings, ebony and other hard wood ornaments, the bronzes and porcelain specimens, are all exquisitely worked; the value attached to them in England varying from 4*l.* and 5*l.* —*William's Middle Kingdom*, *Vol.*, II, *pages* 141 *and* 408. *Yule's Embassy*, *p.* 59. *Hodgson's Nagasaki.*

CARVOES DE TERRA. Port. Coal.

CARYA.—? See Hickory.

CARYOCAR BUTYROSUM. Syn. of Pekea butyrosa. It is the Sonaria, Sawarrow, or Surwha Nut tree of Demarara, might be introduced into India.

CARYOCAR NUCIFERUM. The Sawarrow trees of Guiana.

CARYOCAR TOMENTOSUM. Syn. of Pekea.

CARYODAPHNE DENSIFLORA, BLUME, *Kiteja.* JAVA. A tree sixty to eighty feet high, leaves gratefully aromatic, used in infusion like tea against spasms of the bowels, and in puerperal convulsions—*O'Shaughnessy, page* 547.

CARYON.—? Juglans regia.

CARYOPHYLLUS AROMATICUS. LINN.

Eugenia caryophyllata. *Thunb.*

Karanfal	AR.	Bunga-lawang	MAHR.
La-nyen-Pwen	BURM.	Bunga-chanke	MALAY.
Tkeng-hia	CHIN.	Gaumedi	MOLUCCAS.
Clove Tree	ENG.	Mykek	PERS.
Cloves	,,	Lavanga	SANS.
Clou de girofle	FR.	Krabu gaha	SINGH.
Kurphullon	GR.	Warrala	,,
Long	HIND.	Lavangam	TAM.
Lavan	,,	Lavangam	TEL.

The unexpanded flower buds.

Cloves	ENG.	Clous de girofle	FR.

The dried berries.

Mother Cloves.

This small tree of the Moluccas grows in Amboyna and Ternate, but is cultivated in the Malay Peninsula, the South of India, Mauritius, Bourbon, Cayenne. It is an elegant evergreen about eighteen feet high, and has a smooth grey bark. The best cloves are obtained from the Moluccas; they are unexpanded flower buds, and three pound weight of cloves contains about 5,000 flowers. They are used as a spice, and the valuable oil obtained by distilling them is used in medicine. —*Royle. O'Shaughnessy. Voigt.*

CARYOTA HORRIDA, GARDN. MOON'S CAT.

Areca horrida, *Thwaites, Hooker.*

Katu kittul. SING.

A tree of Caracas, introduced into Ceylon and into the Calcutta gardens. In Ceylon it often rises to a height of fifty feet, and has a coating of thorns for about six or eight feet

from the ground, each about an inch in length, and so densely covering the stem, that the bark is barely visible.—*Voigt. Thwaites.*

CARYOTA URENS, LINN.

Ban khajur.	BENG.
Ramguoah ?	,,
Burra flawan ?	,,
Yels kae ?	CAN.
Bhyni.	,,
Moar	,,
Malabar Sago palm.	ENG.
Ghat palm.	,,
Bastard Sago palm.	,,
Four-leaved Caryota	,,
Jaggery Palm	,,
Ram.guoah ?	HIND.
Mare ?	,,
Berli.	MAHR.
Nibong.	MALAY.
Shunda pana.	MALEAL.
Nepera.	SINGH.
Kittul.	,,
Ootali panna.	TAM.
Cundal panai maram,	,,
Konda panna,	,,
Erim-pannah,	,,
Chirugu,	TEL.
Konda jiligu,	,,
Jirugu,	,,
Marre.	,,
Salopa,	URIA.

This very ornamental palm grows in Ceylon and Malabar, in Canara, Sunda, on the Godavery, in Ganjam, Gumsur, Assam, Sumatra, and Borneo. It grows to a height of forty feet with a ringed, tall and slender stem, of more than a foot in diameter. It is found on the sea-shore, and ascends the mountains of Sikkim to the height of 5,000 feet. Its outer wood (outside the pith) is nearly as hard as flint, of which, like all the grasses and palms, it contains a considerable quantity. Where it grows in abundance, it is one of the most useful of trees. The root is hollowed for the buckets used in irrigation, and the trunk, when hollowed, by freeing it from the inner pith, forms a convenient and economical water conduit. In Ceylon, Sumatra and Borneo, it is used for rafters, reepers, window bars, posts, &c., but is little durable, rarely lasting above 3 or 4 years. Its pith or farinaceous part is filled with starch granules equal to the best sago, which are extracted by the people and made into bread or pottage. Its spathes yield a toddy or palm wine, "*Koondel panai kallu,*" Tam., and, during the hot season, a single tree will yield at the rate of a hundred pints in the 24 hours. This is used as an intoxicating liquor, as yeast in baking bread, is converted into the spirit called "Bhyni Arrack," and into sugar or the jaggery called *Koondel panei vellum*, Tam. Its cabbage is preferred to that of the cocoanut. Its leaves are very large, measuring eighteen or twenty feet in length, and from ten to twelve across; from their fibre, the "kittul fibre" of commerce, ropes of great strength, brushes, brooms, caps, and similar articles are manufactured; the kernel is used for buttons and beads: the woolly material found on the petioles is used as oakum for caulking ships. In a recent account of the "Vegetable Products of Ceylon" by Mr. Ondatjee, it is said that the *black fibre* from the leaf-stalks, manufactured into rope of great strength and durability, is used for tying wild elephants. The Rodyahs, a forest race among the Kandyans, make this rope generally with considerable skill, as it is both regular and compact. At the Madras Exhibition of 1855, its fibre was exhibited from Cocanada, Nellore, Masulipatam and Travancore. It is much used by the natives for making fishing lines and bow-strings, is very strong, and resists water for some time, but is liable to snap if suddenly bent or knotted. It resembles black horse hair, and might be employed similarly. In Borneo, the outer part is split into the form of lathes which are used as the rafters to which the roof covering and the open flooring are tied. These are two inches apart, but kept together by rattans, interwoven amongst them. Dr. Gibson says it is one of the most useful trees in the country, and he had heard that the farm of this tree, throughout the single district of Yellapore in Soopah, yielded Rs. 30,000 per annum.—*Drs. Wight, Gibson, Royle, Hooker, Marsden, and Ainslie, Mr. Mendis, Captain Macdonald, M. E. J. R. Seeman. Mr. Low.*

CASA-CASA. TAM. TEL. Poppy seed.

CASA-CASA NOONA. TEL. Poppy seed Oil. See Oil, Poppy oil.

CASAGHINNI. SANS. Tragia cannabina.

CASARA-KAIA. TEL. Cucumis tuberosus. C. canabina.

CASARCA, a genus of swimming birds of India, of which there are several species. C. cana. C. rutila.

CASARCA CANA, GM. In this bird, the under tail-coverts, are paler, and the black on either side of them at base of C. rutila, is in C. cana replaced by dusky minutely freckled with whitish.

CASARCA RUTILA is the African representative of the common "Brahminee Goose," or "Ruddy Sheldrake" of authors, Casarca rutila, of India.—*Mr. Blyth's Report.*

CASAREEP or CASSIREEPE, a sauce made from the expressed juice of the Jatropha manihot.—*Birdwood.*

CASCARILLA BARK. See Croton cascarilla. Peruvian bark.

CASCARILLEROS. See Cinchona.

CAS-CASA. TAM. TEL. Seeds of Papaver somniferum.

CASCASA YENNAI. TAM. Poppy-seed oil. See Oil.

CASEUS. LAT. Cheese.

CASEARIA, a genus of plants of the natural order Samydaceæ. Eighteen species growing in the Circars, Himalaya, Assam and Penang, and Voigt (p. 78) mentions six species, shrubs or small trees, of Northern India. C. canzeala, glabra, glomerata, lanuginosa, tomentosa, vareca, and Thwaites mentions two moderate sized trees of Ceylon, C. coriacea and C. championi.—*Voigt*, 78. *Thwaites.*

CASEARIA, *Species.*

Peda-kal-mesura. Tel.

A large tree of the Godavery, leaves ovate-oblong, glabrous, serratulate, flowers 8 anthers, capsule 3 valved with 3 ridges on the outside of fruit. Wood of a light colour, hard, does not warp, and is worthy of attention. Fruit used to poison fish.—*Captains Beddome, Macdonald.*

CASEARIA, *Species.*

Dr. Gibson says, a species of Casearia, not elliptica, may be seen growing at Darebae Wurgaum, on the horse road from Jooneer to Nuggur, and which he had not seen elsewhere. It is of a size fit for house building.—*Dr. Gibson.*

CASEARIA CAUZIALA, Wall.

Samyda cauziala,	Buch.	Ana vinga,	Maleal.

A large tree growing in Assam and Bengal, very bitter. Its leaves are used in baths, and the pulp of its fruit as a diuretic.

CASEARIA ELLIPTICA.

Bhogara,	Mahr.	Klaare maram,	Tam.

This, in Coimbatore, is a large shrub, rather than a tree. On the Bombay side it occurs as a small tree, not uncommon near the Ghats, but much less so elsewhere. The wood is smooth, fine grained and yellow coloured, but from its small size is unfit for timber purposes, and can only servo as an ornamental wood.-*Drs. Wight and Gibson.*

CASEARIA ESCULENTA. Roxb.

Jiru kaneli	Maleal.	Konda pragara	Tel.
Konda junguru	Tel.		

A large shrub, growing in the mountains of the Northern Circars. Its leaves are eaten by the people, and its roots are employed by the hill people as a purgative. *Useful Plants.*

CASEARIA PENTANDRA.

Tha-byai-ywet-kya. Burm.

Found in the Pegu district, but scarce. Timber strong and close-grained, adapted for fancy work and cabinet making.—*Dr. Mc-Clelland.*

CASH. In the old Madras currency, a small coin, of which ten = to 1 Doodie, now valued as two pice, and 80 cash going to a fanam; 45 fanams being equal to 1 star pagoda. In Britain "Cash" has come to mean ready money, also copper or silver money. In India it is, along with the cowrie, used to indicate a small sum : In China ? a Cash of iron is the 5320th part of a dollar, and it is a saying "for as many beads make the necklace, so many cash make a cobang," a gold coin equal to four dollars and a third.

CASH. Chin. A Chinese coin about eight to a halfpenny.

CASH, the ancestors of the Chasdim or Chalybes, the mountainous territory, in Central Armenia, a little to the north of Erzroom. The Sabæan followers of Cash are to be distinguished from those descendants of Shem, who at a later period occupied part of the mountains of Assyria. See Chaldea.

CASHICUTTEE — ? Gambier.

CASHEF or **KASHEB**, of the mahomedans of Kashmir, is the Brahma of the hindus, the grandfather of Kasyapa who drained the valley. See Kashmir.

CASHEW APPLE OIL. Anacardium occidentale. This powerfully vesicating oil is obtained from the pericarp of the cashew apple. It resembles in its properties the acrid oil obtained from the marking nut Semecarpus anacardium—*M. E. J. Rep.* See Oil.

CASHEW GUM. Anacardium occidentale. The trunk and branches of this tree, on being wounded during the ascent of the sap, yields a transparent gum similar in appearance to gum arabic, for which it is a good substitute. This gum is sub-astringent, and is particularly adapted for use, where the depredations of insects require to be guarded against.—*M. E. J. R.* See Resins.

CASHEW. NUT. Eng.

Hidjill Badam	Beng.	Acaju	It.
Catsjoenooten	Dut.	Jambu-monat	Mal.
Noix d'acajou	Fr.	Nozes d'acaju	Port.
Akajunusse	Ger.	Nueces d'acaju	Sp.
Westindische Anakaraden	,,	Mundri Kotte	Tam.
Cajew	Guz. Hind.	Munta mamidi vittu	Tel.

Cashew nuts have been noticed when describing the Anacardium occidentale, the tree from which they are obtained. They are kidney shaped, attached to the under part of fruit of the tree, are articles of food, and an ingredient in chocolate.

CASHEW-NUT OIL.

Kajo ka tel,	Hind.	Munta mamidi nuna,	Tel.
Mundri cottay yennai	Tam		

The light, yellow, sweet tasted, and edible oil obtained from the *nut* of this tree, is in every respect equal, if not indeed superior, to either olive, or almond oil. It is very seldom prepared, the nuts being used as a table fruit. —*M. E. J. R.*

CASHEW-NUT TREE. Eng. Anacardium occidentale.

CASGAI. A wandering tribe in the south of Persia, between Shiraz and Darab.

CASHGAR, Khoten, Turfan and Yarkand: according to Lassen, the old original inhabitants of these places and of the adjacent highlands are the Tajik, who speak Persian, and are all agriculturists. The Swedish chronicles bring the Swedes from *Cashgar*, and the affinity between the Saxon language and Kipchak is great.—*Bunsen, Tod.* See Kashgar.

CASHMERE. The Kashmir territory, as

at present formed, comprehends Jammu, Kashmir, Kishtwar, Zangskar, Ladakh and Balti. A chronicle exists which was composed in A. D. 1125, but gives a general historical account of Cashmir from B. C. 1182. The Abissares, a chief who, with rich presents, conciliated Alexander as he approached the Indus, is supposed to have ruled about Cashmir. The rajas of Cashmere of the line of Kuru in the Lunar race, were worshippers of the Naga or Snake. The early chronology of Cashmere is full of doubts, though Professor Wilson, Captain Troyer and Major Cunningham all coincide in regard to the proper period of the initial date of the Naga dynasty. The line is taken from the Raja Tarangini which commences with an account of the desiccation of the valley by Kasyapa muni: supposed to allude to the deluge. Kashmir was colonized by Kasyapa B. C. 2666. There were many dynasties of Kashmir;—kings of the Kaurava race, 1266 years, with one of whom, Gonerda, authentic history commenced in B. C. 2448. Lava in 1709 B. C., was the Loo of mahomedan historians.

Surendra B. C. 1600, was cotemporary of Bahman of Persia.

The Gonerdiya dynasty 1013 years, or 378 years after adjustment, W.

The Aditya dynasty, 192 years.

The Gonerdiya Line restored, 592 years, or 433 adjusted.

The Naga or Karkota dynasty 260 years, five months.

The Utpal dynasty, 84 years, five months.

The Bhota dynasty.

The Mahomedan kings.

Kashmir was annexed to the Moghul empire under Akbar in 1586. A.D., but it has since been ruled from Affghanistan, by the Durani and Barukzye chiefs, but was taken from them in 1819 by ranjit Singh, and is now held by a Dogra Rajput, the chief of Jummo, who holds sway over Cashmir, Jummu, Kishtwar, Zangskar, Ladakh and Balti.

After the close of the Sutlej campaign, the Treaty of Lahore, dated 9th March 1846, left the British Government in possession of the country, hill and plain, between the rivers Beas and Sutlej, and of the hill country between the Beas and the Indus, including the provinces of Cashmere and Hazara. The British Government conferred on Golab Singh, territories on the hills, and recognized his independence. Golab Sing began life as a horseman in a troop commanded by jemadar Khooshal Sing, then the favourite chamberlain of Runjeet Singh. He soon raised himself to an independent command, in which he distinguished himself by making prisoner Agur Khan, chief of Rajaoree. For this service the principality of Jummoo was conferred on his family, and Golab Sing took up his residence in Jummoo, whence he soon extended his authority over his Rajpoot neighbours, and eventually into Ladakh. He took an important part in the negociations which followed the battle of Sobraon. A separate Treaty (No. CXXIV) was concluded with him at Umritsir on 16th March 1846, which put him in possession of all the hill country and its dependencies between the Indus and the Ravee, including Chumba and excluding Lahoul, on payment of seventy-five lakhs of Rs., and in exchange for the Cis-Ravee portion of Chumba. By a subsequent arrangement in 1847, Chumba came again entirely under the British Government. In 1857 Maharajah Golab Sing died, and was succeeded by his son Runbeer Singh, to whom the right of adoption was guaranteed to the Maharajah by a sunnud.

The general level of the valley of Cashmere is about 5,500 feet above the sea, but at the Waler lake and gardens of Srinuggur is only 5,146 feet in L. 34·46 and L. 74·48. The chief town, Srinuggur, on both banks of the Jhelum, has 40,000 people. Islamabad on the Jhelum is a seat of the shawl manufacture. Those fruits which attain maturity are the apple, pear, quince, peach, apricot, plum, almond, pomegranate, mulberry, walnut, hazelnut, pistachio and melon. The cherry "gilas" is indigenous and is cultivated in orchards. The bullace "Prunus insititia," is found nowhere else in a wild state. The vine is extensively cultivated. The recent manufacture of cider by the Maharaja upon a large scale is worthy of notice. The Kashmir trade, including the produce of Yarkand and Khutan, and other remote provinces, comes by the route of Le, &c., and also the imports from Ladakh and Lahaul. The principal routes by which the merchandize of Cashmere enters India, are, from Srinagar, by the Bahnihal pass; to Jammu and Amritsar; by the Pir Panjal, and Bhimbar to Gujrat; also by Akhnur and the Budhil pass; and lastly, from Srinagar to Peshawur, by Manserah, Muzafarabad and Baramulla. The great Punjab mart for Cashmere is Amritsar. The largest import is of pashmina goods, consisting of shawls, needle-worked goods (amlikar), embroidered chogas, &c., and plain pashmina cloth. *Prinsep's Antiquities, by Thomas. Cleghorn, Punjab Report, p.* 171. *Aitcheson's Treaties, &c.* See Chumba, Cash, Koheukka, Kuppoorthoolla, Cab, Mundee, Sookeit, Visvamatra.

CASHMIR, a very beautiful woollen fabric, until recently, manufactured solely in the kingdom of Cashmere, but now, in other towns, in the form of shawls, coats, scarfs. The manufacture of Cashmir shawls was long peculiar to that province, formerly the shawls were exquisitely woven, with unrivalled elegance and chasteness of design, softness and finish in quality, arrangement of colours and use of dyes, which the finest Paisley and French shawls do not approach. These exquisite shawls of Cashmir become rarer and rarer every year, and their place has been usurped by hand embroidered fabrics of lower value, with more showy and more vulgar patterns. In the Panjab and in Delhi, of late years, workmen have commenced to embroider Kashmir cloths and net with floss silk and braid, but solely for sale to Europeans, who wear them as tunics, jackets, scarfs, and the like. In the hand worked Kashmir shawls, as also in the Delhi work, wooden needles of hard wood are used, slightly charred, with a hole in the centre of the needle to receive the yarn. Cashmere weavers have settled at Umritsir and Jellalpur and other places, and have flourished.—*M. E. J. R. Dr. Watson.* See Shawls. Wool.

CASI, the hindu name of Benares, a city which, according to hindu geography, lies in 27° 35' of lat. N., and 4° 37' E. of Lanca. See Benares.

CASIA. See Affghan.

CASNONIA. See Coleoptera.

CASPIAN SEA, an inland sea with Russian territory on the north and west, and Persia on the south. According to Strabo (*lib.* xi), all the tribes east of the Caspian were called Scythic. The Dahæ were next the sea; the Massa-getæ and Sacæ more eastward; but every tribe had a particular name. All were nomadic; but, of these nomades, the best known are the Asi, the Pasiani, Tachari, Saccarandi, who took Bactria from the Greeks. The Sacæ made irruptions in Asia, similar to those of the Cimmerians, and possessed themselves of Bactria and the best district of Armenia, called after them Sacasenæ. Of the first migrations into India of the Indu Scythic Gete, Tahshak and Asi, that of Sehesnag from Sehesnagdes (Takshac from Tacharisthan) six centuries before Christ, is the first noticed by the Pooranas. About the same period a grand irruption of the same races conquered Asia Minor and eventually Scandinavia, and not long after the Asi and Tachari overturned the Greek kingdom of Bactria. The Romans felt the power of the Asi, the Catti and Cimbri from the Baltic shore. Colonel Tod supposes the Asi and Tachari to be the Aswa and Takshac or Toorshka races of the Pooranas of Saca-dwipa, the Dahæ to be the Dahya, one of the 36 Royal Rajput tribes, now extinct, and he supposes these to be the descendants of Baldeva and Yudishtra, returned under different appellations. The country on the east is still occupied by the Turkoman race.—*Vol. I, p.* 259. See India, p. 308. Iran. Kelat, 492. Khiva. Kirkook; Kizzelozan, Koh, Kosi, Kuvir, Shawl-goat, Turkoman, Viswamitra.

CASPICUM. See Rheum.

CASSA-CASSA. TEL. Poppy-seed.

CASSADA ROOT. Janipha manihot.

CASSAREEP, the concentrated juice of the bitter cassava forms the basis of the West India dish pepper pot. One of the remarkable properties of cassareep, is that meat placed in it is preserved longer than by any other process of cooking. See Cassava; Manioc.

CASSAVA, or Bitter cassava, ENG. are the West Indian names of the Janipha manihot, and of the Cassava or Manioc starch prepared from that plant, and from it also is prepared the Cassava meal or flour, or Brazilian arrowroot, and cassava cakes or bread. The Cassavate, called in Brazil "mandisca." The Janipha manihot is a plant about six or eight feet high, with a tuberous root, weighing up to 30 lb. The acrid milky juice when fresh is poisonous. For food, the roots are washed and scraped, ground or grated into a pulp, and the juice pressed out and preserved. The pulp or meal that remains is called *couaque*, and is made into cassava cakes or cassava bread. The expressed juice, by standing, deposits a white powder, which, when washed and dried, forms what the British call Tapioca meal or Brazilian arrowroot, by the French "*Moussache*," and in Guiana "Cypipa," and when this is dried on hot plates, the grains of fecula burst and adhere together and form Tapioca. The expressed juice is sometimes fermented with treacle into an intoxicating fluid. Pearl Tapioca is not from this plant, but from potato starch. *Sweet cassava* is prepared from the Manihot aipi, which is similar to Manihot, but has no deleterous properties.—*Hogg.* See Jânipha.

CASSAVA, flour or meal, from which cassava bread is made, is obtained from the Jatropha manihot, by grating the root, expressing the juice by pressure, and then drying the residual cake and pounding. It is called Moussache by the French.—*Birdwood.*

CASSAVA STARCH, called also Tapioca, is prepared from the starch of the bitter cassava, by washing and granulating on hot plates, by which the concretions are formed, as seen in commerce.

CASSE-EN BOIS. FR. Cassia lignea.

CASSE-FISTULENSE. FR. Cathartocarpus fistula.

CASSIA, a genus of plants belonging to the natural order Fabaceæ of Lindley. It is an extensive genus, 24 species pertaining to the genus belong to the East Indies, and Voigt enumerates 35 as having been grown near Calcutta, viz. :—

Absus.
Alata.
Angustissima.
Aversiflora
aurata.
Auriculata
australis.
Berryana.
Bicapsularis.
Biflora
Burmanni.
Chamæcrista.
Corymbosa.
Elongata
exigua.
Florida
fulgens.
Glauca
Frondosa.
Hirsuta.
Kleinii.
Leschenaultiana.
Ligustrina.
Marilandica.
Nictitans.
Obtusa.
Occidentalis.
Palmata.
Pumila.
Sophora.
„ *β purpurea.*
Suffruticosa
tora.
„ *a* diffusa.
„ *β* erecta.
Telfairiana.
Tenella.
Wallichiana.

Several important products are obtained from species of this genus. Dr. Royle was unable to distinguish the three kinds of Senna from C. elongata, C. lanceolata, and C. acutifolia, and these are all included by him in the C. officinalis.

Cassia ovata, of Merat. It is the C. Æthiopica of Guibourt, found in Nubia and Fezzan.

Cassia Forskalii, is the C. lanceolata of Forskal and Lindley. Grows in Fatme, Surdud and Mor, and called "Suna" by the Arabs.

Cassia obovata, Culladon. A native of Africa, from Senegal to the Nile. Grows in Fezzan, Egypt, from Cairo to Assouan, Nubia, in the Adel country near Sultailli, Desert of Suez, Syria, Kaira in Guzerat, Dekhan near Delhi, in the Rangurh Valley near Peshawar, and in Mysore.

The Sennas of commerce are called (1.) *Tinnevelly Senna*, arranged into Saharunpore, Madras, and Tinnevelly. (2.) *Bombay or common Indian Senna* (Suna Mukhi). (3.) *Alexandrian Senna*. (4.) Tripoli Senna. (5.) Aleppo Senna.—*Voigt. Royle. Mat. Med.*

CASSIA, *Species.*

Ngoo-tha, BURM.

A tree of Moulmein, made into house posts. Fruit and bark used medicinally.—*Cal. Cat. Ex.* 1862.

CASSIA, *Species.*

Gnoo-gyee, BURM.

Common in the plains and on the hills of Pegu, wood used for bows, axles of carts, &c., &c. A cubic foot weighs 57 lbs. In a full grown tree on good soil, the average length of the trunk to the first branch is 15 feet, and average girth measured at 6 feet from the ground is 4 feet.—*Dr. Brandis.*

CASSIA, *Species.*

Tanghani, URIA.

A tree of Gumsur and Ganjam; extreme height 40 feet, circumference 3 feet, height from ground to the intersection of the first branch 18 feet. Used in Ganjam for posts and rafters, and burnt for firewood. It is tolerably common in Bodogoda, but seems to be scarce in Gumsur.—*Captain Macdonald.*

CASSIA ABSUS, LINN.

Senna absus, *Roxb. Fl. Ind.*

Hub-us Soudan,	AR.	Chusmak,	PERS.
Kushmi zurk,	„	Chusmigah,	„
Chychm,	EGYPT.	Avarai pattai,	TAM.
Akakalis,	GR.	Chukuddi patta,	TEL.
Chaksoo,	HIND.		

This small biennial or triennial shrub is extremely common; the powdered seeds are used as an application in cases of chronic opthalmia.—*Royle, p.* 184. *O'Sh. p.* 309.

CASSIA ACUTIFOLIA, *Delisle. Esen. Eberm.*

Bombay Senna.

This grows in Arabia and Africa. Dr. Royle remarks that C. elongata, C. lanceolata, and this plant seem the same. Dr. O'Shaughnessy observed that this species constitutes the bulk of the senna consumed for medical purposes in Europe. It is much adulterated with the leaves of Cynanchum arghel, Tephrosia apollinea, and Coriaria myrtifolia.—*O'Shaughnessy, page* 306. *Royle.*

CASSIA ÆTHIOPICA. See Cassia plants.

CASSIA ALATA, *Linn. W. & A. W. I.*

Senna alata, *Roxb. Royle.*
Cassia bracteata. *Linn.*
Cassia herpetica *Jacq.*

Dad mardan	BENG. HIND.	Dáo mardan	HIND.
Sin bo me-dza-li	BURM.	G'ling-gang	MALAY.
Mai za lee gyee	„	Pako g'ling-gang	„
Velaiti agati	DUK.	Dwipagustia	SANS.
Ring worm shrub,	ENG.	Simi agati	TAM.
Winged cassia	„	Sima avisi	TEL.
Broad leaved cassia	„	Metta tamara	„

It is a stunted shrub, pretty only when in flower. The fresh leaves, bruised and mixed with lime juice, are valuable in ring-worm. The fresh leaves, bruised and rubbed upon the eruption, in many cases remove it. The whole plant is used by the Tamuls as a remedy in venereal, in poisoned bites, and as a general tonic. This species bears a profusion of gaudy, yellow flowers, and is cultivated for its medicinal properties in diseases of the skin. An ointment prepared from its fresh leaves is almost a specific in ring-worm.—*Beng. Phar., page* 338. *Voigt. Mason. O'Sh., p.* 308. *Ainslie,* p. 109.

CASSIA AURICULATA. *Linn., Roxb., W. & A.*

Senna auriculata. *Roxb. Flor. Ind.*

Tarwar	HIND.	Talopodo	SANS.
Tangayree	CAN.	Ranna wara	SINGH.
Matura Tea tree	ENG. ??	Banna wara	„
Tanner's cassia	ENG.	Avarai maram	TAM.
Mayhari	SANS.	Tangedu chettu	TEL.
Its wood.		Its bark.	
Tangada karra.	TEL.	Averai patte.	TAM.

Grows abundantly in the sterile tracts of the Madras Presidency, and in all parts of the Deccan. The bark is used for tanning, and the stems to make native tooth-brushes; with the bark a soft and durable leather may be turned out. On the whole, it is perhaps the best of the indigenous astringents of Southern India for this purpose. All parts of the plant have much astringency, and seem to possess no other property. In the south of Ceylon its leaves are infused as a substitute for tea. Its twigs are held in the hand, or applied to the head for the coolness they impart.—*O'Shaughnessy, p.* 309. *Ainslie*, 1132, *M. E. J. R.*

CASSIA BARK. Cassia lignea. Lat.

Kwei Pe	Chin.	Ketsioth of Ps. xlv. 8	Heb.
Darchini	Duk.	Kayu manis	Malay.
Kiddah of Ex. xxx. 24	Heb.	Lawanga pattai	Tam.
Kinnamon	,,	Do. patta	Tel.

Cassia is mentioned in Exodus xxx. 24, Ps. xlv. 8, and Ezek. xxvii. 19, under the words kiddah and ketsioth, but it is not yet decided what plants produce the cassia of commerce. Dr. Wight is of opinion that coarse barks of the cinnamon tree, which could not be passed as true cinnamon, are classed as cassia. The Chinese cassia is from Cinnamon aromaticum, Nees and Esenb, and Cinnamomum Zeylanicum; and Dr. Royle, who discusses the subject at some length (p. 542). concurs as to the Chinese cassia being one of the producing plants, but adds that there are several distinct sources. At present this bark is produced in Java, on the Malabar coast, in the South of China, and in Cochin China, and Dr. Hassall mentions that the several kinds of cassia are thus described in Pereira's "Materia Medica."

" 1. *China Cassia-lignea*, sometimes called China cinnamon, is the best kind. It is usually imported from Singapore, rarely from Canton direct. Mr. Reeves says vast quantities of both cassia buds and cassia lignea are annually brought to Canton from the province of Kwang-se, whose principal city (Kwei Sin Too), literally the city of the forest (or grove) of cassia trees, derives its name from the forests of cassia around it.

"The Chinese themselves use a much thicker bark (which they call Gan Kwei Pe), unfit for the European market, but they esteem it so highly as to pay nearly ten dollars per pound for it. A very fine quality is occasionally met with, and commands the enormous price of 100 dollars per catty (one pound and three quarters). A specimen of it furnished by Mr. Reeves, is straight, semi-cylindrical, eleven inches long, rather more than an inch wide, and about one-sixth or one-eighth of an inch thick. Externally it is warted, and covered with crustaceous lichens. Internally it is deep brown, its odour and flavour are those of cassia. Mr. Reeves also mentioned that the best cassia-lignea is cut in the third or fourth moon, the second sort in the sixth or seventh moon.

" 2. *Malabar Cassia-lignea.* This is brought from Bombay; it is thicker and coarser than that of China, and is more subject to foul-packing; hence each bundle requires a separate inspection. It may, perhaps, be coarse cinnamon, for Dr. Wight states that the bark of the older branches of the genuine cinnamon plant is exported from the Malabar Coast as cassia.

" 3. *Manilla Cassia-lignea.*—This, he was informed, is usually sold in bond for continental consumption. He had received a sample of bark ticketed 'cassia vera from Manilla,' the epidermis from which was imperfectly removed.

" 4. *Mauritius Cassia-lignea.*—This is occasionally met with."—*Royle, p.* 542. *Harris, Nat. Hist. of Bible. Hassall's Food and its Adulterations.*

CASSIA BERRIES, or Dalchini Berries,

are produced in the Nuggur districts of Mysore from the same plant as the Cassia buds. The berries are an article of trade in the Nuggur division of Mysore.—*Dr. J. Kirkpatrick. Rohde. MSS.*

CASSIA BICAPSULARIS. Linn.

Syn.

Senna bicapsularis. *Roxb.*

Six-leaved Cassia, Eng.

A shrub of the West Indies and South America, domesticated in India.

CASSIA BRACTEATA. Linn. Syn. of Cassia alata. *Linn.*

CASSIA BUDS.

Kwei tsze	Chin.	Flos Lauri Cassiæ	Lat.
Kasielblameu	Dut.	Flores de cassia	Port.
Nagkessur	Guz.	Sirnaga-pu	Tam.
Tejput-ka-phul	Hind.	Nagesh-alu	Tel.

Cassia buds are the immature fruits of a Cassia or Cinnamomum, native of Cochin China, and an inferior kind of cassia buds, known as *Lavunga-pu*, is found in Malabar. What are the genus or species that afford it are as yet undetermined. Cassia buds are now being largely exported from the Western Coast of India, and it is a spice growing in favour, but still less known than it deserves. *M. E. J. R. Dr. Cleghorn's Reports. Drs. Royle. Ainslie.*

CASSIA BURMANNI, Syn. of Cassia obovata.

CASSIA CINNAMOMUM.

Dawol kurœndo. Singh.

Under these names, Mr. Mendis describes a wood, used for common house building purposes. The tree grows in the central province of Ceylon. A cubic foot weighs 39 lbs., and it is esteemed to last 20 years.—*Mr. Adrian Mendis.*

CASSIA COROMANDELIANA. JACQ. Syn. of Cassia sophora. *Linn.*

CASSIA CUNEOPHYLLA. KOEN. Syn. of Cassia glauca. *Linn.*

CASSIA ELONGATA. LAM. LISANE.

Cassia lanceolata. *Royle.*
„ officinalis. *Gærtn. Roxb. Fl. Ind.*
„ senna. *Roxb. H. B.*
Senna officinalis. *Roxb. Fl. Ind.*

Senna plant	ENG.	Sanna makhi	ARAB,
Tinnevelly senna	„		HIND.

This is found in many parts of India, and the general opinion is that the plant is indigenous, but others believe it to be only naturalized, and are of opinion that this is identical with the Cassia lanceolata of Forskal. Dr. Royle cultivated this plant at Saharunpore, and Dr. Gibson near Poonah, Dr. Wight near Madras, and Mr. Hughes near Tinnevelly. Dr. Burns also noticed it near Kaira. The plants in these situations yield a drug quite equal in value to the best imported senna. Dr. Royle remarks that Cassia elongata, C. lanceolata, and C. acutifolia seem the same. The senna of commerce is obtained from several plants, viz :

1. CASSIA OFFICINALIS, called Bombay Senna, also Sunna Mukki.

SYN.

Cassia lanceolata, *Forskal.*
Cassia medica, *Forskal.*
Sennæ meccæ Lohajæ, *Forsk.*

Cultivated in Arabia and Northern India. The three following plants *a*, *b*, *c*, seem the same, viz. :

(*a*) CASSIA ELONGATA. Tinnevelly senna.

SYN.

Cassia lanceolata. *Royle.*
Cassia officinalis. *Gærtn.*

Cultivated by Dr. Royle at Saharunpoor, by Dr. Gibson near Poonah, by Dr. Wight near Madras, and Mr. Hughes near Tinnevelly, also noticed by Dr. Burns near Kaira.

(*b.*) CASSIA LANCEOLATA. *Acutor.* Alexandrian Senna.

SYN.

C. acutifolia. *Hayne. Nees. Eber.*

This grows in the valley of the desert, south of Syene.

(*c.*) CASSIA ACUTIFOLIA. *DeLile. Esen. Eberm.*

Bombay Senna. Grows in Araba and Africa.

2. CASSIA OBOVATA. MERAT.

SYN.

Cassia æthiopica. *Guibourt,*
Senna of Tripoli.
Sene de Tripoli.

Grows in Nubia and Fezzan.

3. CASSIA FORSKALII.

SYN.

Cassia lanceolata. *Farhs. Lind.*
Cassia ligustrina. *Batka.* SUNA : Arab.

Grows in the valley of Fatme.

4. CASSIA OBOVATA, *Colladon, O'Shaughnessy, page* 306. See Cassia plants.

CASSIA ESCULENTA. ROXB. In E. I. M. Syn. of Cassia sophora.

CASSIA ETHIOPICA. See Cassia elongata.

CASSIA EUCALYPTOIDES. See Cassia. Cassia lignea.

CASSIA FÆTIDA. ROXB. Syn. of Cassia occidentalis. *Linn.*

CASSIA FÆTIDA. SALISB. Syn. of Cassia tora. *Linn.*

CASSIA FISTULA. Syn. of Cathartocarpus fistula.

CASSIA FLORIDA.

May-za-lee. BURM.

Cultivated in British Burmah, heartwood almost black, used for helves, walking sticks, mallets, &c., &c. A cubic foot weighs lbs. 58. In a full grown tree, on good soil, the average length of the trunk, to the first branch, is 15 feet, and average girth, measured at 6 feet from the ground, is 6 feet. Dr. Mason tells us that the Cassia florida in Tenasserim has wood "not inferior to ebony."—*Drs. Brandis and Mason.*

CASSIA FORSKALII.

SYN.

Cassia lanceolata. *Lind.*
Cassia ligustrina. *Batka.*

Suna. ARAB.

Grows in the valley of Fatme.

CASSIA GALLINARIA. COLLAD. Syn. of Cassia tora. *Linn.*

CASSIA GLAUCA. LINN. LAM. W. AND A.

Cassia Surattensis BURM.	Cassia arboresceus, VAHL.
„ sulphurea DECAND	„ cuneophylla, KOEN.

Senna arborea. *van Rheede. Roxb.*
Wellia tagera, *Maleal.*

Sulphur flowered Cassia ENG.	Konda tautepu Chettu, TEL.

A small tree with large sulphur yellow flowers, grows in Burmah, Coromandel and Malabar coasts. Its bark mixed with sugar and water is given in diabetes, and its bark and leaves, mixed with cummin seed, sugar and milk, in virulent gonorrhœa.

CASSIA LANCEOLATA. AUCTORUM.

Cassia acutifolia, *Heyne, Nees, Eberm.*

Alexandrian Senna.

This grows in the valleys of the desert south of Syene. But Dr. Royle remarks that C. acutifolia, C. elongata and this seem the same, and he describes them all as Cassia officinalis.

CASSIA LANCEOLATA. ROYLE.

Cassia elongata. *Lam. Lisane.*

Suna,	ARAB.	Nilaveri,	TAM.
Sanapat,	BENG.	Nelapoona,	,,
Suna makki,	HIND.	Nela taughadoo,	TEL.

CASSIA HERPETICA. Jacq. Syn. of Cassia alata. *Linn.*

CASSIA INDICA. Poir. Syn. of Cassia sophora. *Linn.*

CASSIA INERS. See Cassia.

CASSIA LENHOSA. Port. Cassia Lenosa. Sp. Cassia lignea.

CASSIA LIGNEA.

Selikeh,	Ar.	KayumanisChina	Malay.
Ngu-si,	Burm.	Kayu-legi,	„
Kwei Pie,	Chin.	Havanga,	Maleal.
Dar-chini,	Dek.	Singrowla,	Nep.
Moedercaneel	Dut.	Cassia lenhosa.	Port.
Hout-Kassie,	„	Tuj,	Sans.
Cassia Bark,	Eng.	Twacha ?	„
Casse en bois,	Fr.	Tamala patra,	„
Kassien rinde,	Ger.	Mukalla,	Singh
Dalchini,	Guz. Hind.	Dawul Kurundu,	„
Tej.	Hind. Pers.	Cassia lenosa.	Sp.
Cassiglina,	It.	Lawanga pattai.	Tam.
Cassia lignea,	Lat.	„ patta,	Tel.
Kayu-manis,	Malay.		

—*Ainslie's Mat. Ind.* p. 8. *Dr. Royle Mat. Med. Dr. O'Shanghnessy, Beng. Dis.* See Cassia Bark.

CASSIA MEDICA. See Cassia plants.

CASSIA NITIDA. See Cassia.

CASSIA NODOSA. Knotted Cassia. Cathartocarpus nodosus.

CASSIA OBOVATA. Merat.

Cassia Æthiopica, *Guibourt.*
Senna of Tripoli.
Séné de Tripoli.

One of the species yielding the Senna of commerce; grows in Nubia and Fezzan.

CASSIA OBTUSA, Roxb. *W. & A. W. Ic.*

Cassia obovata. *Wall.*
„ Burmanni „ *Wight.*
Senna obtusa. *Roxb.*
Nela tangedu, Tel.

It is indigenous in Mysore, Egypt, Suez, Nubia, and Central Africa. The leaves furnish the Aleppo and Italian drug. A nearly allied species, the *C. obtusa*, is common on the dry uncultivated lands of Mysore.—*O'Shaughnessy, page* 307.

CASSIA OCCIDENTALIS, Linn. W. and A.

Senna occidentalis. *Roxb.*
Cassia sophora. *Wall.*
Cassia fœtida. *Roxb.*

Ka lau,	Burm.	Kashanda	Tel.
Peya veri	Tam.	Kasinda	„
Paya vera	Mal.		

Common in Bengal, small, very offensive, used in cutaneous maladies, and also aperient. Roxburgh gives it no native name. Mr. Mason has occasionally noticed it in Tenasserim, in native cultivation for medicinal uses. It was originally introduced into India from the West Indies.—*Mason. O'Shaughnessy, p.* 309.

CASSIA OBTUSIFOLIA.

Chakowar,	Hind.	Jangli-powar,	Hind.

According to Dr. Irvine (*Gen. Med. Top. p.* 131) the seed of this plant is used in medicine, the plant is scarce about Ajmeer, is prescribed to cleanse the blood in an entire state: when the seeds are pounded and then swallowed, vomiting is produced, the leaves of the young plant are eaten as a vegetable; are also applied in itch cases. It is very common in the Dekhan: goats and sheep are fond of the seed, one seer of the seed costs one pice.—*Irvine.*

CASSIA OBTUSIFOLIA. Burm. Ind. Syn. of Cassia tora. *Linn.*

CASSIA OFFICINALIS. Gœrtn. *Royle.*

Cassia lanceolata. *Forskal. Royle.*
„ medica „
Sennæ medicæ Lohajæ „
Senna officinalis. *Roxb. Fl. Ind.*
Cassia elongata, *Lem. Lisane.*
„ lanceolata. *Royle.*
„ Senna. *Roxb. H. Buch.*
„ acutifolia. *Heyne. Nees. Eberm. Delile. Esen.*

Tinnevelly Senna.	Alexandrian Senna.
Bombay Senna.	Sunna Mukki.

Dr. Royle remarks that Cassia elongata, C. lanceolata and C. acutifolia seem the same plants. He describes C. officinalis as cultivated in Arabia and Northern India, and with the C. acutifolia known in commerce, as Bombay Senna, Suna Makki. The C. elongata, known as Tinnevelly Senna, was cultivated at Saharunpore, Poonah, near Madras, near Tinnevelly and Kaira, and C. lanceolata, as growing in the valleys of the desert south of Syene, and known as the Alexandrian Senna. See Cassia.

CASSIA OIL.

Volatile oil of cassia bark	Eng.	Tuj-ka-tel	Hind.
Cassia Oil	„	Kulfa ka tel of Malabar.	

This volatile oil is obtained by distillation of the Cassia Bark. It is brought from China via Singapore.

CASSIA PODS. See Cassia fistula.

CASSIA PURGANTO. Port. Cathartocarpus fistula.

CASSIA PURPUREA. Roxb. in E. I. M Syn. of Cassia sophera. *Linn.*

CASSIA SEEDS. See Cassia buds.

CASSIA SENNA. Roxb. H. B. Syn. of Cassia elongata, *Lem. Lisane.* See Cassia plants. Senna.

CASSIA SOPHORA, Linn. *W. and A.*

Cassia esculenta. *Roxb. in E. J. M.*
„ purpurea „ „
„ torosa. *Cav.*
„ Indica. *Poir.*
„ Coromandeliana. *Jacq.*
„ sophoroides. *Collad.*
Senna sophora, *Roxb. Fl. Indica.*
„ esculenta, *Roxb.* ii. 346. *Rheede.*

Kalkasunda,	Beng.	Sourna mayharie,	Sans.
Kalkashinda,	„	Punaveri,	Tam.
Round podded Cassia,	Eng.	Kasamardakamu,	Tel.
		Paidi tangedu,	„
Ponam tagera,	Maleal.	Nuti kasinda,	„

Grows in Bengal, Assam and Moluccas, Ceylon, Malay Peninsula, and Peninsula of Southern India. Its leaves are eaten in curries. Bruised, powdered and mixed with honey, are applied to ringworm and ulcers. The bark is given in infusion in diabetes.—*R. Brown.*

CASSIA SOPHORA. WALL. Syn. of Cassia occidentalis. *Linn.*

CASSIA SOPHOROIDES. COLLAD. Syn. of Cassia sophora. *Linn.*

CASSIA SULPHUREA. D. C. Syn. of Cassia glauca. *Linn.*

CASSIA SUMATRANA.

Ma-za-lee	BURM.	Kyee, BURM. of Moulmein	
Bombay Blackwood	ENG.	Arromenc	SINGH.

This tree grows in the central province of Ceylon, where a cubic foot of its wood weighs 57 lbs., and it is said to last 50 years. It is there used for furniture and house building. It is plentiful throughout the Hlaine. Pegu and Tounghoo forests, and is very plentiful especially on the Mazalee Choung, the name of which is derived from this tree. It is used in house building. It affords a very strong wood like ebony.—*Dr. McClelland, Mr. Mendis. Cal. Cat.* 1862.

CASSIA SURATTENSIS. BURM. Cassia glauca. *Linn.*

CASSIA TAGARA. LAM. Syn. of Cassia tora. *Linn.*

CASSIA TORA. LINN.

Cassia obtusifolia. *Burm., Ind.*	Senna tora. *Roxb.*
„ fœtida. *Salisb.*	Cassia tagara. *Lam. not Linn.*
„ gallinaria. *Collad.*	Senna toroides. *Roxb.*

Kulkul	AR.	Tagara	MALEAL.
Chakunda	BENG.	Prabunatha	SANS.
Dan-ky-wai	BURM.	Tukarini	TAM.
Oval leaved cassia	ENG.	Tagashe	„
Fetid cassia	„	Tagaray	„
Chakunda	HIND.	Tantepu chettu	TEL.

Common all over the plains of India and in Tenasserim, it is one of the most abundant weeds in the country. Its leaves are fetid, mucilaginous and gently aperient. They are much used for adulterating senna, and in various external applications. The seeds, ground with sour butter-milk, are used with excellent effect in itchy eruptions, and they are used in preparing a blue dye, generally fixed by lime-water. The root rubbed to a pulp with lime-juice has almost specific powers in the cure of ringworm. Like all the allied species of cassia, this seems to owe its virtues to its astringency alone.—*O'Shaughnessy, p.* 309.

CASSIA TOROSA. CAV. Syn. of Cassia sophora. *Linn.*

CASSIA TREE. See Cassia buds.

CASSICANS BARITA. Syn.of Chalybæus paradisæus.

CASSIGLINA. IT. Cassia lignea.

CASSIM, a common mahomedan name of the peninsula of India. Kasim Ali; Mahomed Kasim.

CASSIRI, a liquor prepared by rasping the root of Jatropha manihot, mixing it with water, boiling and fermenting.—*Birdw.* See Cassareep.

CASSIS, a genus of shells, many species of which occur in India. Cassis rufa, the great red shield shell, occurs in the Maldives; it is brought as part of the tribute to Ceylon, and is re-exported to Italy for the manufacture of cameos.—*Tennant's Ceylon.*

CASSOWARY BIRD, See Casuarius. Emu.

CASSVIUM POMIFERUM. LAM. RHEEDE. Syn. of Anacardium occidentale.

CASSYTA FILIFORMIS. LINN. *Roxb. Rheede.*

Calodium Cochin-Chinense. *Lour.*

Akash bulli	BENG.	Antara valli tige	TEL.
Akash-wail	of BOMBAY.	Nuln tega	„
Cotton ka paat	DUK.	Pachi tige	„
Akat-ja bulli	MALEAL.	Pane tiga	„
Kottanelle	TAM.		

The leaves are put into butter-milk, as seasoners, and are chiefly in use amongst the brahmins in the southern parts of the peninsula.—*Ainslie's Mat. Med. p.* 263.

CASTALIA EDULIS. SALISB. Syn to Nymphæa edulis, *D. C.*

CASTACALA, a division of time equal to the $\frac{1}{600}$th put of a Vicala.—*Warren.*

CASTANIA, a genus of plants of the natural order Corylaceæ, inhabiting the colder parts of South Eastern Asia. Voigt names C. Chinensis, C. Indica, C. Roxburghii, and C. tribuloides. Fortune says that among the woods, he met with the Chinese-chesnut for the first time in China. Dr. Mason says, an indigenous chesnut tree grows in Burmah on the uplands, which yields abundantly, and whose fruit is sold in the bazar, but they will not compare with the French chesnuts, nor even with the American chincapin. There are two species cultivated on the China hills. One somewhat like the Spanish, produces fruit quite equal, if not superior, to Spanish chesnut. The other is a delicious little kind, bearing fruit about the size and form of the common hazel-nut. Large quantities of both kinds were procured by Fortune, and sent on to India in Ward's cases, and many hundreds of plants reached India. The Chinese chesnut may now be considered naturalized on the hills of India, and in a few years will no doubt make its appearance in the markets amongst other fruits.—*Fortune's Residence. Mason. Voigt.*

CASTANEA INDICA. ROXB.

Theet Khya. BURM.

A tree of Nepaul and the Himalaya, of Chittagong, Khassya, Rangoon, Pegu and Tounghoo, the edible nut, *Nikiri*, Hind, is compared to indifferent filberts ; the wood is red and equivalent to mahogany.—*Drs. Royle, p.* 345. *McClelland, Mason. Voigt.* 276. *O'Shaughnessy, p.* 607.

CASTANEA MARTABANICA.

Theet khya	BURM.	Zi tha	BURM.
Norne	of TAVOY.		

This tree of Moulmein and Martaban, grows all down to the sea shore of Tenasserim. The fruit is eaten lake chesnuts.—*Mason. Calcut. Cat. Ex,* 1862.

CASTANEA TRIBULOIDES. LINDLEY.

Wet-theet-kya. BURM.

A tree of the Nepaul and Khassya Hills, and of Burmah.

CASTANOSPERMUM AUSTRALE.

Moreton Bay Chesnut. ENG.

This tree grows to a height of thirty or forty feet, and has been introduced into India from Australia.

CASTE. The first institution of hindoo society which forces itself upon the attention of the stranger, is that of caste. When Mr. Borradaile counted the castes in Surat in A. D. 1827, he found 207 in that city. Each of them was more or less restricted from private intercourse with all the rest ; they could not intermarry, nor even eat the same food, nor drink the same water. The date of the origin of caste, and the objects in view are alike obscure. Bunsen (in 589) says the system of caste seems to have become completely formed B. C. 3000, during the formation of the kingdom of the Puru, and the system of caste, he adds, was in full force when the Code of Manu was composed. In the Vedic hymns nothing appears of a priesthood, properly so called. In some, brahmans officiate, but are evidently subject to the Kshatriyas as chaplains to the noblemen. The allusion to castes is very vague, as when the five classes of beings are mentioned, which may mean the four castes of Aryans, and a fifth of the barbarians. But there is one hymn in the Veda, known as the Purusha Sukta, which represents the brahman as superior ; though it does not correspond with the legend on that subject in its latter form. It is given as follows in Mr. Muir's Sanscrit texts (p. 7), and is a mystical description of existences from original being, under the similitude of a sacrifice or as a mental sacrifice. Ver. 7. This victim Purusha, born primevally, they immolated on the sacrificial grass : with him as their oblation, the Gods, Sadhyas, and Rishis sacrificed. 8. From that universal oblation were produced curds and clarified butter. He produced the animals, of which Vaya is the deity, both wild and tame. 9. From that universal sacrifice were produced the hymns called Rich and Saman, the Metres, and the Yajus. 10. From that were produced horses and all animals having two rows of teeth, cows, goats and sheep. 11. When (or offered up) Purusha, into how many parts did they divide him ? What was his mouth ? What were his arms ? What were called his eyes and feet ? 12. The Brahman was his mouth, the Rajanya was made his arms ; that which was the Vesya was his thighs : the Sudra sprang from his feet. 13. The moon was produced from his mind (Manas) the Sun from his eye : Sudra and Agni from his mouth ; and Vaya from his breath. 14. From his name came the atmosphere ; from his head the sky ; from his feet the earth ; from his ear the four quarters, so they formed the worlds." The comparatively late date of this hymn, is evident from the mention of the Sama and Yajur Veda, (Ver. 9) but it is older than other accounts which are given us in Manu and the Mahabharata, when the mystical significance of the story disappears, and the castes are represented as literally proceeding from Brahma's body. Even when this origin of the castes had been received, and the supremacy of the brahmans established, it was still considered possible to rise by means of mortification from the Kshatriya to the Brahmanical caste. The fact of Visvamitra and other Kshatriyas having been inspired Rishis, to whom some of the hymns of the Rig Veda had been revealed, was so stubborn, that the brahmans even after this ascendancy could only parry its force by accounting for it in their own way.

Sir Henry Elliot says that about the sixth and seventh century, the divisions of castes were secular, not religious. In former times, he says, the four classes existed, equally amongst the buddhist and hindus of India, as they do at this day amongst the buddhists of Ceylon, and amongst the Jains of the peninsula, in whose temples even brahman priests may be found officiating (*Elliot's Hist. of India.*) With the persons of almost every separate calling, or separate race belonging to separate castes, only a notice of a few can be made. The tradesmen and artizans of India are mostly all associated in classes or sects or castes, who do not intermarry, and seldom eat with others. Amongst these, may be named the Banjara, or wandering grain merchant ; the Bhatthari or cook ; Chichri or scavenger ; the Dhor or currier and leather worker ; Dhangar or shepherd ; Erkalvadu or basket maker ; Gaoli or dairyman ; Kalaigar or tinman ; Kassar or brazier ; Khanjar or poulterer ; Ladaf or Cotton seller ; Lar-kassai or beef salesman ; Lal begi or scavengers ; Lohar or blacksmith ; Mookre or mealman ; Muchi, leather worker ; Rangrez or dyer ; Saikalgar or cutler ; and Sonar or goldsmith. There are also many wandering tradesmen and tribes, mostly predatory.

In the south of India, the five artizan classes are called kammalan, kamalar or comsalar, and Professor Wilson thinks the word Comsallar may be derived from the Sanscrit and Hindi *Kans*, Bengali *Kansya*, a mixed metal. In Madras the artizans of the Tamul race are of the five left-hand castes, but the konsala is the goldsmith, and chief of the five left hand castes; the other four are the kanchari or brazier, kammari or blacksmith, vadlangai or carpenter, and kasi or stone mason. These intermarry and eat together, and all wear the zonar. The distinction of right and left hand castes is peculiar to the south of India. It is supposed by Professor Wilson to be of modern origin, and to have been introduced at Conjeveram, as a part of civil policy to divide the people and undergo the powers. But Sir Walter Elliot is of opinion that the separation into right and left hand castes, had its origin in the violent conversion of the ancient races from buddhism to hinduism, and he has been shown a figure of Budha, which the artizan caste worship. At present they seem to worship Viswakarma, but the bulk seem to recognise Saiva as their supreme deity. They all bury their dead and in a sitting posture like that of Budha, sitting with the head of the dead close to the surface, and looking to the north, and their dislike to the brahmins is intense. In the Peninsula, caste had certainly nothing to do with religion, but related solely to race. It is amongst the Tamulian people that the right and left hand sections appear. The Idan-kai or Idan-gai, are the left hand caste, and the Valan-gai are the right hand caste, and according to Professor Wilson, the names and appellations of right hand castes vary in different parts of peninsular India, but are usually supposed to be eighteen in number. Professor Wilson names them

1. Banijaga or trader.
2. Okhaliga or cultivator.
3. Jotiphana or oilmaker, employing one bullock.
4. Rangajiva, dyer or calico printer.
5. Ladaru, mahomedan traders and artificers.
6. Gujerati, bankers from Guzerat.
7. Komati, merchant shopkeepers of the Vaisya.
8. Jaina, Jains.
9. Kurubar, shepherds.
10. Kumbar, potters.
11. Agasa, washermen.
12. Besta, fishermen employed as palanquin bearers.
13. Padma Shalaysa, weaver.
14. Naindu, a barber.
15. Upparanu, a tank digger.
16. Chitragara, a painter.
17. Golla, a cowherd.
18. Walla, or Pareyan, or Paria, who is the champion for the right hand caste, as is the Madaga or Sikeli for the left hand caste.

The Left Hand caste.

Edagai,	KARN.	Idangai,	TAM.
Edagakula,	,,	Idam.	,,
Eddayai,	,,	Idakai.	,,

The Karnatic enumerations furnish nine, viz.

1. Panchala or artizans.
    - *a.* Kammaranu, blacksmiths.
    - *b.* Badage, carpenters
    - *c.* Kansagar, braziers.
    - *d.* Kallurtiga, stone cutters.
    - *e.* Akasale, goldsmiths.
2. Bersetti, traders.
3. Devangada, weavers.
4. Ganigar, oil-makers.
5. Gollur, money carriers.
6. Paliwan, and Palawan, cultivators.
7. Beda, hunter, fowlers.
8. Madiga, tanners, curriers, and shoemakers.

The hindu races, those professing some part or other of the brahminical creeds, though kept apart from each other by the castes to which their various origins gave rise, their sectarian religious views are now also sources of separation. In the physiological worship of the hindus, for instance, while one class of sectarians, the Saivava and the Lingaet, worship the form of lingam, another set of sectarians, the Sakta, worship the Yoni, in accordance with the doctrine of the Tantras. The Sakta are divided into two classes, the Dakshina chari, or right hand Sakta, and the Vama chara, or left hand Sakta. The right hand worship is public, and addressed to the goddesses usually adored, but especially to the forms of Durga, Bhawani and Parvati, also to Lakshmi and Maha Lakshmi and others. But in the worship of the left hand divisions, the Tantraka impersonations of Durga as Devi, Kali, Syama, &c., or a living woman representing the Sakta, the worship is private and impure, and is said to have the most numerous followers. The Vira Saiva, who are known as the jungam, also as the Lingaet or Lingbadari, from wearing the lingam always, and who are very numerous in the Canarese-speaking tract, ought not, according to the tenets of their sect, to have any caste distinctions; but they are the most bigoted of all the hindu sects, and their caste distinctions are those of trade and avocation, and are rigidly adhered to. Among the Jains, whose religion consists principally in the practice of austerities, and in avoiding to destroy life, caste restrictions are not prescribed, nevertheless they too retain the practice of caste divisions and the Shrawuk practice many usages common to other hindoos. If a Jain come into contact with an outcast, he, like the hindu, touches fire or water to purify himself; if he have occasion to receive any thing from a pariah, he causes the pariah to set it down on the ground, and purifies it with fire or water, before he takes it up. Even shepherds and Koolees incur pollution by touching the dherrace, which they remove in a similar manner. In the course of evidence before a criminal court in Goozerat, in August 1853., "the shepherds, Bhugwen and Rodo," said a Koolee, "came to me, and said they had both touched dhers, and became impure, and asked me to give them fire. I took a lighted coal out of my hookah, and each of them touched his forehead with it. I threw it down, and they then took my hookah, and smoked." In other words, they were then purified, otherwise he could not have given them his hookah. If a Sudra hindoo ask a drink of a brahmin, it will be given in a brass vessel, but from a distance, the brahmin stretching forwards and placing the pot between. It is returned similarly, but before receiving it back, water is poured over to purify it. No one of the helot races can enter the house of a hindoo, but he will stand at a distance and shout out his message. These are all illustrations of the usual operation of caste in India, which has held its own in the religious, social, and political changes of 3000 years. Since railways and steam boats have been running, and the educational system of the British has equalized all classes, much of the dread of caste defilement has disappeared, but it is still the prominent feature in every-day hindoo life.—*Forbes' Rás Malá or Hindoo Annals, Vol.* II., *p.* 237-38. *Wilson's Glossary. Sir H. Elliot's Supplementary Glossary. Forbes' Rashala. Sir Walter Elliot in Ethnological Society's Journa. Ethnological Society's Journal.*

CASTEL PELEGRINO. The modern village Atlieb is the first place towards Jaffa; it is the Castel Pelegrino of the Crusades, and the Dor of the Hebrews. Beyond that, its columns and buttresses, a confused mass, stretching into the waves, over which the surf breaks, is the celebrated city of Cæsarea. —*Skinner's Overland Journey, Vol.* I., *p.* 96.

CASTIGLIONIA LOBATA. RUIZ. and PAV. Syn. of Jatropha curcas. *Linn.*

CASTILLEJIA. A genus of ornamental plants grown in India.

CASTING OF METALS, in India, is very largely practised, and the processes are of great simplicity. The natives generally prepare a model in wax, which is embedded in moist clays which, after being dried in the sun, is heated in the fire, the wax run out, and the metal run in. A much better plan, where accuracy is required, as in casting a brass nut or box for a large screw, is to cast the model in lead, and, having bedded it in clay, it may, when the mould is dry, be melted and run out, and the metal run in. Wax models allow the moulds to shrink in drying, and the thread of a screw box so formed, of course does not correspond. The best specimens of native casting Mr. Rohde had seen, were a set of figures cast at Pettapore, about 30 years ago for the zemindar, who had whole armies of such in bronze. In Maunbhoom, in Chota Nagpore, much ingenuity is displayed in the mode of casting articles of this kind in hollow net work, &c. A core is made of plastic clay, all carefully shaped to the internal form of the fish or other object to be imitated. This core is then baked and indurated. On this, the pattern designed to be represented is formed with clean bees' wax. This done, and the wax having cooled, it becomes tolerably hard. Soft clay is moulded over all. The whole is then baked, the heating indurating the outer coating of clay, but softening the wax, which all runs out of the mould, leaving empty the space occupied by it. The mould being sufficiently dried, the molten brass is then poured into the empty space, and, when cool, the clay is broken away, when the figured casting is seen. These are untouched after the casting, excepting on the smooth and flat surfaces which are roughly filed.—*Mr. Rhode MSS. Calcut. Cat. Ex.* 1862.

CASTING NETS made of cotton or other fibrous substance are in extensive use in all the rivers and on the sea shores of the South and East of Asia.

CASTOR. ENG.

Ashbutchegan	AR.	Dedes	MALAY.
Jund Bedushtar	,,	Kasturi,	,,
Bivergeil	DUT.	Ras,	,,
Castoreum	FR. LAT.	Gund bedushtar	PERS.
Kastoreunt		Castorco	PORT. SP.
Bibergeil	GER.	Babuwaja struga	RUS.
Gond-badustar	HIND.	Kasturi	TAM.
Castoria	IT.	Munai	,,
Jabat	MALAY.		

A concrete substance obtained from two small bags in the preputial follices of the beaver, Castor fiber, of both sexes. The Castor of North America is imported into India for medicinal purposes. A kind of castor also obtained from the civet cat in the archipelago.—*O'Shaughnessy, p.* 614.

CASTOR and POLLUX. Their representatives in the hindu mythology are the Aswini Kumara. See Aswin, Hindu, Saraswati.

CASTORA. It. Castoreo. Port Sp. Castoreum. Lat. Castor.

CASTOR FIBER. See Castor.

CASTOR MOSCHATUS. See Sorecidæ.

CASTOR OIL. Eng.

Duhun ul kherwa	Ar.	Minak jarak	Malay.
Ky et tsut shi	Burm.	Roghan bed-anjir	Pers.
Huile du Ricin	Fr.	Ricinsoel	Sp.
Rizinus ohl	Ger.	Chittamanak yennai,	Tam.
Erandi-ka-tel	Hind.	Chitta amudam	Tel.
Arandi	„		
Olio di Ricino	It.		

Castor oil is obtained by expression from the seeds of the Ricinus communis or Palma christi, which grows in all the warm countries of the world, and in the south of Europe. It is usually described as "*Cold drawn Castor Oil*," which is understood to express that the oil has been obtained without the aid of heat; and *hot drawn castor oil*, when the seed is subjected to slight dry heat, and then pressed, but it may be doubted if any of the castor oils of commerce are ever expressed from the seeds without prior dry or subsequent water heating. There are, however, two varieties of the castor oil plant grown in India, the large and the small, and the mode of obtaining their respective oils may, perhaps, vary in different districts. One mode of obtaining the oil is to separate the seeds from the husks by children throwing them against a wall, then bruise them by tying them up and beating them in a grass mat. In this state, they are put into a boiler and boiled until all the oil is separated, which floats at the top, and the refuse sinks to the bottom; it is then skimmed off, and put away for use. The purest oil is said to be obtained by crushing the seeds in horse-hair bags, by the action of heavy iron beaters. The oil, as it oozes out, is caught in troughs, and conveyed to receivers, whence it is bottled for use. Castor oil is used for lamps in the East Indies, and the Chinese are said to have some mode of depriving it of its medicinal properties, so as to render it suitable for culinary purposes. That which the people of Britain import from the East Indies comes from Bombay and Calcutta and Ceylon, and is obtained at a very low price. It is exceedingly pure, both in color and taste. Castor oil is largely imported into Bombay from Cutch and other ports in the Presidency, and is re-exported to England and France. The Palma christi, or Castor-oil plant, is very extensively propagated by the Karens, who have two or three varieties. Until they were informed, however, by the missionaries, they were not at all aware of the medicinal properties of the plant; their object in planting the tree being, to obtain the seeds to mix with their dyes, and fix their colours. The plant is cultivated at Lucknow as a mixed crop. It is sown in June by almost all the villagers, not extensively, but principally for their own use. Its cultivation can be extended all over Oude. This oil is extracted by bruising the seeds, and then boiling it in water; the oil is afterwards skimmed off. This is the only seed out of which the oil is extracted by boiling, as in this case it is found cheaper than the method used for other seeds which is by pressure. The cost of the seed is one Rupee per maund, and the price of the oil is from 2 to 5 seers per rupee, according to the abundance of the crop in the season. The proportion of the oil yielded is about half the weight of the seeds boiled; it is only used for burning. In Cuttack, the plant is grown all over the province, a good deal in patches of newly cleared land in the jungles of the Tributary States and Sumbulpore. The oil is extracted in two ways. It is used for burning and culinary purposes, and medicinally also. The native methods of extracting oil are wasteful and tedious, and therefore expensive. The oil obtained from the large seeded variety is sometimes drawn cold, and its straw-colored specimens are scarcely distinguishable in quality from the oil of the small seeded variety. It is, however, more usually extracted by heat, and forms the common "lamp oil" of the bazar. In its *preparation*, the seeds having been partially roasted over a charcoal fire, both to coagulate the albumen and to liquify the oil, are then pounded and boiled in water until the oil rises to the surface. The roasting process gives it a deeper red colour and an empyreumatic odour. The price of this oil varies in different parts of the country from Rs. 1-10-0 to Rs. 3-13-6 per maund of 25 lbs. The average of nineteen large stations, in all parts of the Madras Presidency for the quarter ending 31st October 1854, was Rs. 2-8-6 per maund. The average exports of six years, Galls. 227,561 per annum. The small variety is employed to make the castor oil used in medicine. For a fine kind of castor oil for domestic purposes, take five seers of the small castor oil nuts, and soak them for one night in cold water. Next morning strain this water off, throw it away, and put the nuts into a second quantity of fresh water, and boil them in it for two hours; after which, strain the water off, and throw it away as in the first instance, the husk or outer covering being removed, the nuts are then to be dried in the sun, on a mat, for three days, at the end of which time they are to be well bruised in a mortar; add to the nuts, thus bruised, ten measures of water, and set them on the fire to boil, taking care to keep continually stirring the contents of the pot, until all the oil appears at the top, when it is to be carefully strained off, and, after being allowed to cool, put into a bottle for use. The quantity of nuts mentioned in the above receipt ought to yield about one quart bottle full of oil. In place of the ten measures of plain water, the same quantity of cocoanut water may be used: it is supposed to make the castor oil of a paler and finer colour. As with other coloured substances, filtering and light soon decolorizes the coloured castor oil. The best filtering material is animal charcoal, and the sun's rays finally remove all shade of colour.—*Rhede MSS. Cal. Cat. Ex.* 1862.

CASTOR OIL PLANT. Ricinus communis.

CACTRO. Don Juan de Castro, Captain in the fleet, and author of the History of Don Stephano de Gama, which in 1540 sailed from Goa to Suez, with the intention of burning the Turkish galleys there.

CASUARIA POMANDRA.

Tha-byai-ywet-kya. BURM.

This is found in the Pegu districts, but scarce. Timber strong and close-grained. Wood white coloured, adapted for fancy work and cabinet making.—*McClelland.*

CASUARINA. Several species of this genus of trees, called oaks by the colonists, grow in Australia, the C. quadrivalvis or "Oak," C. torulusa or "Forest Oak," C. paludosa or Swamp Oak or Fir, and C. suberosa or Cork-bark Oak, from the peculiar appearance of its bark. One of the casuarinas, known as the Arroo tree, from their resemblance are usually called firs by the Europeans. The Madagascar name is Filaof. Whilst every other kind of vegetable and meat is eaten with the fingers, cannibal food is touched only with forks, generally made of the wood of the Nokonoko (Casuarina equisetifolia, *Forsk.*) or the vesi (Afzetia bijuga, *A. Gray*), bearing curious, often obscene names, and having three or four long prongs. The reason given for this deviation from the general mode of eating is a widely spread belief, that fingers which have touched bokola are apt to generate cutaneous diseases when coming in contact with the tender skin of children. *Galton's Vacation Tourists, p.* 268.

CASUARINA EQUISETIFOLIA.

Sarv ka jhar DEKHANI.
Arroo tree of the Archipelago
Fir tree of the English.
Filaof of Madagascar.
Filaof of Mauritius.
Iron wood of the South Sea Islands.
Chouk maram. TAM.
Serva chettu. TEL.

This tree was introduced into India about the beginning of the nineteenth century and is now well established, growing freely and ripening seed in great abundance. In general appearance, it much resembles the Larch Fir,—it grows in 10 years to the height of about 30 feet. It generally grows very straight, and, where the main shoot is broken or lopped off, throws out secondary shoots readily which are usually straight and erect. It thrives best in sandy tracts along the sea shore, and it would be desirable to plant it largely on the sand hills north and south of Madras, where some numbers have already been grown. The wood is reddish in colour: in density and appearance it somewhat resembles Trincomallee. It bears a great strain, is well adapted for posts, and is said to bear submersion in water very well. The bark contains tannin, and a brown dye has lately been extracted from it by M. Jules L'Epine of Pondicherry. On the whole, this tree well deserves extensive cultivation on sandy tracts, where it grows readily. It is a favourite avenue tree; and, kept stunted, forms a beautiful hedge. Much of the sandy coast of the eastern side of the peninsula of India might be planted with it. This tree has been very extensively and profitably planted in various parts of the Madras Presidency, on the coast and inland, but the larva of a large species of Acheta has caused much injury to plantations near Madras. It appeared suddenly in September 1867. The larvæ burrow in the sand in subterranean passages, and during the night the larvæ emerge from the sand, and crawl up the young trees, generally biting off the young shoots. —*M. E. J. R.*

CASUARINA MURICATA, ROXB.

H'ten-roo. BURM.
Fir Tree of the English in India.
Tinian Pine. „
Beef wood. ENG.
Club wood of Tahiti.
Hari. HIND?

This is grown in all parts of the Dekhan, where it was introduced about 1830. It is a native of Chittagong, is the only species indigenous to the Tenasserim coast, and has been diffused over Bengal. In Tenasserim, it is found only in the loose sandy soil of the sea board and never inland. In general outline it resembles the pine, but it is of a more slender figure, and more elegant in appearance. Dr. Mason tells us that in Tenasserim, it is a remarkable tree, growing eighty feet high and spreading out without a leaf of covering; but its numerous fine knotted branchlets, mantled with brilliant green, and hanging in drooping bunches, or floating out lightly upon the breeze like long skeins of green silk, adorn it with the most graceful drapery, and make it one of the most desirable trees for embellishing a Tenasserim park. It grows 60 to 80 feet high, with trunk 3½ feet in circumference four feet above the ground. The wood is very hard and durable, and the Tahitians in their war days, chose it for the manufacture of their ingeniously carved war-clubs; hence they termed it the club-wood. They also fashioned valuable fishing hooks from its roots. Dr. Mason further informs us that the Casuarina muricata or Beefwood, is imported into the United States in considerable quantities, for various purposes where a hard heavy wood is required, and the Casuarina on the Tenasserim coast can furnish almost any quantity of this timber, but it is very little used. Roxburgh says it resembles toon in appearance. The natives of Tenasserim call it by the same name as the pine.—*Drs. Roxb.* (vol. iii., p. 59). *Riddell and Mason.*

CASUARIUS, the Cassowary, a genus of great birds belonging to the section Struthionidæ. Of this genus there are three species known, *C. galeatus*, a native of Ceram; C. Australia, inhabiting the Cape York district of Australia; and C. Bennettii, whose domicile is New Britain. Crawfurd says that it was erroneously supposed to be a native of the Sunda Islands, being known to the inhabitants of these countries only as an imported stranger. The Malay name is Suwari, from which, most probably, the European one is taken. Casuarius galeatus inhabits the island of Ceram only, and like the cockatoos, crown pigeons, and birds of paradise, of the last island, was made known to the inhabitants of the west through the Malay and Javanese, who have immemorially carried on a trade with the country of the Papuans. It is a stout, strong bird, standing five or six feet high, and covered with long hair-like feathers. Its head has a large horny casque or helmet.—*Crawfurd Dictionary, p.* 84. *London Athenæum No.* 1512, *December* 12, 1857, *p* 1551.' *Wallace*, ii. 86.

CASUARIUS BENNETTII. GOULD. This is the Cassowary of the island of New Britain, near to New Guinea, where it is called Mooruck. The height of the bird is three feet to the top of the back, and five feet when standing erect. Its colour is rufus, mixed with black on the back and hinder portions of the body, and raven black about the neck and breast. The loose wavy skin of the neck is beautifully colored with irisdescent tints of bluish purple, pink, and an occasional shady green, quite different from the red and purple caruncles of the *Casuarius galeatus*. The feet and legs, which are very large and strong, are of a pale ash colour. This bird also differs from the *C. galeatus* in having a horny plate, instead of a helmet-like protuberance on the top of the head: which callous plate has the character of and resembles mother of pearl darkened with black-lead. The form of the bill differs considerably from that of the Emu, *Dromaius Novæ Hollandiæ*, being narrower, larger, and more curved, and in having a black or leathery case at the base. Behind the plate of the head is a small tuft of black hair-like feathers, which are continued in greater or lesser abundance over most parts of the neck. The egg is about the same size as that of the Emu, and is of a dirty pale yellowish green colour. The bird appears to Dr. Bennett to approximate more nearly to the Emu than to the Cassowary, and to form the link between these species. In its bearing and style of walking it resembles the former, throwing the head forward, and only becoming perfectly erect when running; it also very much resembles the Apteryx in its body, in the style of the motion, and in its attitudes. Its bill presents a great deal the character of that of a rail: It utters a peculiar chirping whistling sound, but also a loud one resembling that of the word 'Moork," whence, no doubt, is derived its native name —*Dr. Bennett, in a letter dated Sydney* 10*th Sept.* 1857.

CASUARIUS GALEATUS, the helmeted Casuary of Ceram, is so called from the horny helmet which surmounts the head. Its rudimentary wings consist of five long bristles like blunt porcupine quills. It runs swiftly with a bounding motion. It feeds on fruits, birds' eggs, insects, crustacea, and tender herbage. It is a stout and strong bird, standing five or six feet high, and covered with long, coarse, black hair-like feathers. The head has a large horny casque or helmet, with bright blue and red colours on the bare skin of the neck. These birds wander about in the vast mountain forests that cover the island of Ceram. The female lays three to five large and beautifully shagreened green eggs, on a bed of leaves. The male and female sit alternately on the eggs for about a month. Dromaius Novæ Hollandiæ rises to a height of seven feet. It lives on fruits, eggs and small animals.

CASYAPA, one of the earliest individuals named in the writings of the hindus. See Aditi, Kasyapa.

CAT.

Si-mi Bhotia,	SOKPA.	Maida.	PERS.
Billi,	HIND.	Poné,	TAM.
Min-khyeng,	KAMI.	Pilli,	TEL.

Cats are found throughout South-Eastern Asia. They are mentioned in a Sanscrit writing two thousand years old, and there are figures of them on the monuments of Egypt of a much prior age. Mummy cats have been identified with the Felis chaus, and with Felis caligulata, H. bubastes, both still found in Egypt, wild and domesticated. Pallas, Temminck and Blyth believe that the domestic cats are descendants of several wild species which readily intermingle. F. sylvestris is wild in Scotland. F. Lybica is the wild cat of Algiers, in S. Africa, F. Caffra is wild. In India are four wild species, of which F. chaus has a lynx-like tail. F. ornata or torquata occurs at Hansi, F. manul occurs in Central Asia. In the Isle of Man, cats are tailless, and have long hind legs. The domestic creole cat of Antigua is small with an elongated head, and that of Paraguay, also small, has a lanky body. In the Malayan Archipelago, Siam, Pegu, and Burmah, all the cats have truncated tails with a joint at the end. In China a breed has drooping ears [illegible] large Angora or Persian cat, is su[illegible] to be the descendant of the Felis m[illegible] of Middle Asia; it breeds freely with I[illegible] cats. There is a wild cat in Borneo; but, in Australia, there was no feline animal, no apes, monkeys, cats, tigers, wolves, bears or hyenas, no deer or antelopes, sheep or oxen, and no elephant, horse, squirrel, or rabbit; but it has marsupials only, kangaroos, opossums, and the duck-billed platypus. Whittington, so long the hero of a favourite nursery-tale of England, is rivalled by the story of the Florentine "Messer Ansaldo degli Ormanni." In a letter of "Conte Lorenzo Magalotti" in the "Scelta di Lettere Familiari," published by Nardini. Lond. 1802, (p. 139), his two cats, "due bellissimi gatti, un maschio, una femmina," soon relieved the king of an Island (Canaria) on which he had been cast by a violent tempest, from the plague of mice, and he was recompensed "con richissimi doni."—*Earl, p.* 233. *Darwin's Animals and Plants. Sair-ul-Balad in Ouseley's Travels, Vol.* i., *p.* 171.

CATABENI. An ancient mercantile race, who made Okelis their sea port. See Okelis.

CATALLI-KAI, also Atunday. TAM. Capparis horrida.

CATALONIAN JASMINE, Jasminum grandiflorum.

CATAMARAN. ANGLO-TAM.

Kattay maray. TAM.

A boat-shaped raft on which the natives of the Coromandel coast, for fishing, &c., cross the surf that continuously washes those shores. It is composed of three logs of wood pointed in front, made still more prow form by wedge-like sharpened timber and widening to the stern. The catamaran rides lightly on the sea and rises to an ordinary surf, but is overwhelmed and tossed and rolled about by a great breaker, and the natives usually dive away to avoid the advancing angry mass of water. See Boat.

CATAN. MALAY. Cancer. Crab.

CATAPA. Almond of Terminalia catappa. *Ben. Phr.* 199.

CATARACTS IN INDIA. Where the river Shirhawti falls into the Gulf of Arabia, it is about one-fourth of a mile in width, and in the rainy season some thirty feet in depth. This immense body of water rushes down a rocky slope for 300 feet, at an angle of 45°, at the bottom of which it makes a perpendicular plunge of 850 feet into a black and dismal abyss, with noise like the loudest thunder. The whole descent is therefore 1,150 feet, or several times that of Niagara; but the volume of water in the latter is somewhat larger than in the former. The principal cataracts or waterfalls in India, are near Simorree, in Rohilcund; at Gokak, on the Gutpurba; on the Gairsuppa, where from top of fall to surface of basin is 888 feet, and the depth of basin is 300 feet—1,188 feet, and from 300 to 600 feet across during the rains. Yena in Mahabaleshwar, 600 feet; Cauvery, 370 and 460 feet. Cataracts of Suboonreka, Chota Nagpore, and Hurroree Ghaut—the falls, 15, 20, and 400 respectively; about 500 feet across crest—*Curiosities of Science, Dr. Buist's Catalogue.*

CATASHA. MALEALUM.

CATCH. PORT. Catechu.

CATEARAJ AHEERA KI BHAJI. DUK. Amarantus spinosus.

CATECHU, ENG.

Shia-dza	BURM.	Kuth	GUZ.
Sha-Si	,,	Cutch	,,
Cutt	CAN.	Katha	HIND.
Catechu	ENG.	Khair	,,
Terra-japonica	,,	Catecu,	IT.
Cutch	,,	Kachu (of Acacia)	MALAY.
Cachou	FR.	Gambia (of Uncaria)	,,
Katchu	GER.	Catch	PORT.
Cauth	GUZ.	Kash katti	TAM.

Several astringent extracts are now known to be prepared from the wood, bark, and fruit of various plants, and which are known as catechu, form articles of commerce, and are employed in tanning. That called *Kut* or *Kutch* by the natives of the East, and Cutch, and Terra Japonica in commerce, is properly an extract prepared from the wood of the Acacia catechu; but the term is now applied also to other extracts similar in appearance and properties. The mode of preparing catechu, by cutting into chips the inner brown coloured wood of the Acacia catechu, and making a decoction which is afterwards evaporated to a proper consistence, was first accurately described by Mr. Kerr, as practised in Behar; it is the same on the confines of Nepal, and in North-West India, on the Malabar coast, and also in Burmah, from the same tree. But there seems to be no doubt that the extract from the Uncaria gambier is also known in the market as kutch, as also is the extract from the nuts of the Areca catechu. "The *Kutt* manufacturers, from the Acacia catechu, move to different parts of the country in different seasons, erect temporary huts in the jungles, and selecting trees fit for their purpose, cut the inner wood into small chips. These they put into small earthen pots, which are arrayed in a double row along a fire-place built of mud ; water is then poured in until the whole are covered. After a considerable portion has boiled away, the clear liquor is strained into one of the neighbouring pots, and a fresh supply of material is put into the first, and the operation repeated until the extract in the general receiver is of sufficient consistence to be poured into clay moulds, which in the Kheree Pass and Doer, where he had seen the process, are generally of a quadrangular form. This catechu is usually of a blood-red colour, and is considered there to be of the best quality. By the manufacturers it is conveyed to Saharunpore and Moradabad, whence it follows the course of commerce down the Ganges, and meets that from Nepal, so that both may be exported from Calcutta. Catechu has long been employed in India for tanning skins; its tanning properties are stated to be so great, that skins are tanned by it in five days. It has also been used in India to give a brown dye to cotton ; and catechu has lately been very extensively employed in the calico-printing works of England. The salts of copper with sal-ammoniac, cause catechu to yield a bronze color, which is very permanent. The proto-muriate of tin produces with it a yellowish brown. A fine deep bronze hue is also produced from catechu by the perchloride of tin, with an addition of nitrate of copper. Acetate of alumina gives a brown, and nitrate of iron a dark-brown. For dyeing a golden coffee-brown, catechu has entirely superseded madder, one pound of it being equivalent to six pounds of that root.

The catechu prepared from the nuts of the Areca catechu is wholly used as a masticatory. The nuts, however, yield two astringent preparations, both of which are known as catechu, and both of a very inferior quality. The preparations are respectively called, in Tamil, Katha Kambu and Kash Katti, in Telugu Kansi, and in the Dekhan Khrab Katha and Acha Katha. The former, Katha Kambu, is chewed with the betel leaf, the latter, Kashi Kathi is used medicinally. For preparing this substance, the nuts are taken as they come from the tree, and boiled for some hours in an iron vessel. They are then taken out, and the remaining water is inspissated by continual boiling. This process furnishes Kassu, or the most astringent terra japonica, which is black and mixed with paddy husks and other impurities. After the nuts are dried, they are put into a fresh quantity of water and boiled again ; and this water being inspissated, like the former, yields the best or dearest kind of catechu. See Acacia Catechu. Areca catechu : Betel-nut. Gambier. Uncaria gambier. —*Royle.*

CATECHINE. See Catechu.

CATECHUIC ACID. See Catechu.

CATECU. IT. Catechu.

CATERPILLARS. Some Ceylon caterpillars sting. A greenish one, that occupies the Thespesia populnea (Suriya, Singh) at a certain stage in its growth descends by a silken thread, and hurries away. The moth of this is supposed to be a Bombyx, near Cnethocampa, *Stephens.* Another, short, broad and pale, green with fleshy spines that feeds on the Carissa jasminiflora, and stings with fury, is of the moth Neæra lepida, *Cramer,* (the Limacodes graciosa. *West.*) The larvæ of the genus Adolia are hairy and sting with virulence. *Tennant, Ceylon.* See Larva.

CATGAMURGUM NITOORU. TEL. Dragon's Blood.

CATGUT. ENG.

Rhoda, GUZ. HIND.

This, of various qualities, is in general use in India, for bow-strings, the strings of musical instruments. A kind of rope somewhat resembling catgut is made by the chucklers of the sinews of animals, it answers tolerably for lathe bands, drill bow-strings, &c., and cat-gut is imported from Herat into the Punjab.

CATHA EDULIS. *Forskal.*

Khat	ARAB.	Abyssinian Tea	ENG.

One of the Celastraceæ, grows in Arabia, where its leaves are eaten green, and are supposed to give such increased wakefulness, that a man could watch all night. The Arabs carry a twig about with them as an antidote against plague infections. Playfair says it is much used by the inhabitants, furnishing a drug which forms a pleasurable excitant. The leaves and tender shoots, when chewed, are said to produce hilarity of spirits and an agreeable state of wakefulness.—*Playfair's Aden. Hogg.*

CATHARTOCARPUS. A genus of plants of the natural order Fabaceæ, of which Voigt names, as Indian species, C. fistula, Javanicus, nodosus, rhombifolius.

CATHARTOCARPUS FISTULA. PERS.

Cassia fistula, *Linn.*

The tree and its product.

Bukbur.	AR.	Gnoo Gyee	BURM.
Kyyar-chember ?	,,	Kakae	CAN.
Banner lati-gach'h	BENG.	Coonaree	,,
Sondali	,,	Amultas	DUK. HIND.
Sonalu	,,	Bhawa	,,
Soodali	,,	Pykassie	DUT.
Gnoo-shwoay-ngu-bin.	BURM.	Pudding pipe tree	ENG.
		Purging Cassia	,,
Gnoo Shooway	,,	Casse fistuleuse	FR.

Purgir cassie	GER.	Chunó	MALEAL.
Gurmalla	GUZ.	Mentus	,,
Gurmalla.	HIND.	Khyar-i- Chembir	PERS.
Its product,		Cassia purgaute	PORT.
Polpa di cassia	IT.	Suvarnamu	SANS.
Dranguli	JAV.	Suvarnuka	,,
Tung-guli	,,	Ahilla	SINGH.
Cassia pulpa	LAT.	Konné maram	TAM.
Bawa	MAHR.	Sarakonné maram	,,
Baya	,,	Suvarnam	TEL.
Gurmala	,,	Róyla	,,
		Soonaree	URIA.

A tree from twenty to forty feet high, met with all over Southern Asia, with a girth of three or four feet, and the height to the first branch ten to fifteen feet. It is uncommonly beautiful when in flower : few trees surpassing it in the elegance of its numerous, long, pendulous racemes of large bright yellow flowers, intermixed with the young lively green foliage. It bears a striking resemblance to the laburnum. It varies in size in different localities ; in Combatore, being too small for useful timber, but in Malabar it attains sufficient size to be adapted for the spars of native vessels. The wood weighs lbs. 66 to the cubit foot, is close grained and of moderate strength ; in Coimbatore used for tom-toms. In Ganjam and Gumsur, where it is tolerably common, it is made into plough-shares and rice-pounders. It is common on the hills and plains of Pegu, where it is used for bows, axles of carts, &c. It has long cylindrical pods, from 9 inches to 2 feet in length, internally divided into partitions, each with a flat seed, surrounded by a soft pulp. Two pounds weight of the fruit yield eight ounces of the concrete pulp : which forms an article of commerce. Its bark is used in tanning. The bark of the root is a strong purge.—*Drs. Wight, Gibson, Irvine, and Brandis, Mr. Rohde, Roxb.*, 333.

CATHARTOCARPUS JAVANICUS, PERS.

Cassia Javanica. | Horse cassia, ENG.

A native of Java and the Moluccas, with legumes above two feet in length, containing a black cathartic pulp used, in India, as a horse medicine.—*Eng. Cyc.*

CATHARTOCARPUS NODOSUS.

Cassia nodosa.

Guu-thei-ni	BURM.	Knotted cassia.	ENG.

Remarkable for its large pink coloured flowers. It is highly esteemed in Bengal, and is found in the Tavoy forests.—*Dr. Mason. Voigt.*

CATHARTOCCRPUS ROXBURGHII *D.C.*

Cathartocarpus marginatus, *G. Don.*

Cassia marginata, *Roxb. (not Willd.)*

Roxburgh's cassia. ENG.

A highly ornamental tree, in form much resembling the weeping ash. It is a native of Ceylon, and of the south of India, frequent in the jungle between Trichinopoly and Dindigul, and to be found in Indian gardens. The wood is hard and handsomely marked, and may hereafter prove a valuable addition to the timbers of India.—*Roxb.*, vol. ii., p. 338.

CATHAY, a name of western China. "Cathay and Tartary tremble at the glance of thy vivid eyes—China and India must pay tribute to thy curled locks."

CATHCART, Mr, a Bengal Civil Servant, who made a magnificent collection of Darjeeling plants.

CATHI, the Katheri of Diodorus Siculus, the present Khetri tribe. The Cathi, or Catti tribe, are supposed to be the nation which so manfully opposed Alexander. It was then located about Mooltan, at this period occupied by the Langa race. A portion of them gave their name to Cattiawar, in the Saurashtra peninsula. The Catti claim descent from the Balla, an additional proof of northern origin, and strengthening their right to the epithet of the bards, "Lords of Mooltan and Tatta." —*Tod's Rajasthan, Vol.* II., *p.* 246. See Kathi. Afghan. Kabul. p. 434. Khetri.

CATHERINE ISLANDS, in the Gillolo passage, in lat. 0° 39′ N., long. 129° 11′ E. —*Horsburgh.*

CATHERI. See Cathi, Kathi ; Katti.

CATJANG. HING., also Kola lobia, *Hind.* Dolichos lablab, *Lam.* Lablab vulgaris, *Savi.*

CATMANDOO. The valley of Nepal is nearly of an oval shape ; length, N. to S., 12 m. ; E. to W., about 10 m. It is bounded on the N. and S by stupendous mountains. To the E. and W. by others less lofty, the western end defined principally by a low steep ridge, called Naga Arjoon, which passes close behind Sumbhoo Nath, and is backed by a more considerable one named Dhoahouk. To the eastward, the most remarkable hills are those of Ranichouk and Mahabut, but they do not reach the elevation of Phalchouk (the highest on the south), or of Sheopoori, which is by far the highest mountain. The bottom of the valley is uneven, intersected by deep ravines, and dotted throughout with little hills.—*San. Com. Report.* See Katmandoo. Nepal.

CATODON AUSTALIS, a sperm whale of the ocean near Australia. It is about 35 feet long.

CATRAME. IT. Tar.

CATRY. See Khetri.

CAT'S EYE.

Chushm-i-maidah,	GUZ. [HIND. PERS.	Zmilaces,	LAT.
Bel occhio,	IT.	Zmilampis,	,,
Beli oculus,	LAT.	Mata-kuching,	MALAY.

Cat's eye, is chiefly found in Ceylon, but specimens are also obtained from Quilon and

Cochin, and in the neighbourhood of Madras. Cat's eye is much valued in India. It is a transparent quartz full of minute fibres of asbestos and is cut in a highly convex form. It is of a yellow hue, slightly tinged with green. The cat's eye is often set in rings, and is brought to Tenasserim from Burmah. Comstock says: "It is in great request as a gem, and bears a high price:" but those seen in Maulmain market are not much valued. A small one may be purchased for two rupees, and one of ordinary size for five; while ten rupees is the highest price given for the best. —*Mason.*

CAT-SKINS, are used chiefly dyed, and sold as false sable. The fur of the wild cat is more esteemed than that of the domestic cat. —*Faulkner.*

CATSJOE-NOOTEN. Dut. Cashew Nuts.

CATTAPPA. Malay. Terminalia catappa.

CATTLE.

Πωυ	Greek.	Faihu	Old High Germ.
Pecu	Italian.	Gai Goru	Hind.
Faihu	Germ.	Para	Sans.

The cattle of India have been noticed under draught cattle; in India they are chiefly bullocks, and they are driven from the horns or by means of the reins led through the nose cartilage. Iago says in Othello, "He will as tenderly be led by the nose as asses are," indicating that in Shakspear's time a similar mode prevailed of driving asses. In the middle of the 19th century, a severe cattle plague carried off vast quantities of cattle in Europe, and shortly after a similar plague in India carried off great numbers. The characteristic symptoms were drooping, cold ears, hair standing on end, frequent weak pulse, running at the eyes and nose, scanty high coloured urine and purging, terminating in a bloody flux. As the disease advanced the body became covered with pustules, the disease generally proving fatal in a few days; but when the membranes of the brain were affected the animal died in a few hours with the symptoms of apoplexy.

CATTOO-SIRAGUM. Tam. Caturus speciflorus.

CATTRA-BANCHA. Sans. Aristolochia bracteata.

CATTU CASTURI. Mal. Musk okro.

CATTY, or Kati, Malay, in the Eastern Archipelago and China, a weight, equal to lb. 1⅓ or 16 Tale; one hundred Catty are equal to one pikal.—*Wils.*

CATU KAMRIGA RAKTA. Sans. Dragon's blood.

CAUBUL, a town in Afghanistan in long. 69° 12' E., & lat. 34° 7' N. See Kabul.

CAUCASIAN IBEX. See Capreæ.

CAUCASUS, the numerous ranges of Caucasus take their rise from one immense body of mountains, which stretches diagonally between the Euxine and Caspian seas. This parent stem rises boldly to the westward, in the neighbourhood of the Turkish port of Anapa, then takes a sweep nearly in the form of the eastern shore of the Euxine, and runs along as far as the confines of ancient Colchis, now called Immeretia. Thence it suddenly stretches in a line almost directly east, for upwards of 300 wersts; then it shoots off to the south-east, taking the shape of the western shore of the Caspian, and terminating amidst the sublime ruins of the Guebre altars at Badku. This principal range boasts the gigantic Elburz and Kasibeck, towering over the loftiest summits of its other mountains. The heads of these two celebrated mountains are almost always obscured with clouds; and when they are partially discerned by the exhalation, or rolling away of their fleecy covering, winter or summer, still we see an eternal snow upon their peaks. The *second branch* is distinguished by the name of the Mossian Hills, and was the Mooschici montes of Ptolemy. It stretches along, from the vicinity of a Turkish fort called Battoumi, in a nearly parallel direction with the first range, though at a great distance, till it reaches the banks of the Araxes, and is lost in the plains of Mogan. This branch is again connected with the primary chain, by a series of mutual ramifications, forming rich valleys; and spreading out into the fertile plains of Akhiska, Immeretia, Kartelania, and Georgia, reaching down to Shirvan. And, running onward to the third, whose wild steeps embank the shores of the Euphrates, it thus connects the whole. This *third range*, known to Ptolemy by the name of the Mons Paryardes, in some respects vaster, and, perhaps, more interesting than the other two, takes a direction along with the Euphrates to the south west, forming a third parallel chain of the Caucasus, till it terminates that answering line in Armenia: and that at the point where the stupendous Ararat towers above every other mountain. Thence the chain makes an abrupt angle; and, diverging suddenly due south, shoots out into all those various branches which spread themselves over Persia and Asia Minor.

That great Paropaisan range of mountains which separates the provinces Azerbijan and Irak from those of Mazunderan and Gheelan, is known in some parts by the appellation of Koh-i-Caucasan, but more generally by that of Elburz; and is connected with the mountains of Armenia, and consequently with the great chain of Caucasus. Preserving an easterly course, it is continued through the northern part of Khorasan, sending various ramifications to the southward, till, passing north of Mushed, and branching out into the highlands of Hazarah and Balai Moorghab, it extends to the southward of Balkh, into the remote province of Budukshan, and is lost in that great mountainous tract north of Caubul, which is continuous with the ranges of Hindoo Coosh and Himalaya, and in which the largest rivers of Asia take their rise. The Amazon country of the ancients is generally referred to the neighbourhood of the Caucasus. Herodotus (I, c. 203 and IV. 100-117) speaks of them. They are mentioned in the Maha Bharata, in the story of the Aswa-medha and Klaproth (Trav. Cauc. and George xxx) summarises the existing information. *Wh. Hist. of I., p.* 419. *Porter's Travels. Vol.* I., 152. See Beer-us-Somal; Somal, India, p. 310, 317. Inscriptions, Kaffir, Kasyapa, Kazazilbash, Koh; Persia; Sati; Semitic Race.

CAUCHOONDA. Hind. Tricosanthes anguina, the snake gourd.

CAUCHORI VAYR. Tam. Tragia involucrata.

CAUKRI-KAI. Maleal. Cucumis sativus.

CAULIFLOWER. Brassica oleracea. *var.* An excellent vegetable, but does not flower in Madras. In the Deccan, the seed should be sown at the latter end of August. Removing the plants, occasionally, prevents their quick growth. In England the market gardeners seldom water cauliflowers, and once in four days is amply sufficient in the Deccan; no injury will accrue even if watered less frequently. In India, white brocoli is often taken for the cauliflower. Brocoli, both red and white, should be cultivated in the same manner as cauliflower.—*Riddell.*

CAULY NUDEE, a river of the plain of Dharwar, lat. 15° 33′, lon. 74° 47′ South 61 m; west 30 m. into Indian Ocean. Length, 91 m. Navigated by the largest patimars for 20 m. from Mullapoor to Shedashegur, rendered easy by uniformity of channel. The words mean black stream, spelled variouly, "Cali," "Kali." There are many "black rivers" in India.

CAUMA COOSHTEEA. See Kush or Cush.

CAU MARA, See Sacti.

CAUMDAIH CAUMOJEE. See Kush or Cush.

CAUR NOOCHIE. Tam. Justicia gandarussa.

CAUTH, or KUTH, or CUTCH. Guz. Hind. Catechu.

CAUTLEY, Sir Proby Thos., k. c. b., entered the Bengal Artillery in 1819. He was employed in the field during the years 1820 and 1821, in the reduction of numerous forts in the kingdom of Oude. In 1825 and 1826 he served at the siege of Bhurtpore. He was subsequently employed as a civil engineer on the eastern Jumna Canal in the North-west Provinces of India, and was the projector and the executor of the great Ganges Canal Works, which were opened in April 1854. Sir Proby T. Cautley carried on extensive researches in conjunction with Dr. Falconer, in the fossil remains in the Sewalik hills. He presented to the British Museum an extensive collection of fossil mammalia from the Punjaub, duplicates of which are in the Museum at the East India House. He wrote on a submerged city, twenty feet under ground, near Behut, in the Doab. Bl. As. Tr. 1834. On fossil quadrumina. Ibid. Use of wells, &c. in foundations, as practised in the Northern Doab. Structure of the Sevallick hills. Notice of a fossil monkey from the Sevallick hills. Coal and lignite in the Himalayas. Description of Sivatherium giganticum, fossil crocodile, Sevallick hills, fossil ghurial, fossil hippopotamus, fossil camel, fossil tiger, fossil bear, Gold washings in the Goomti river, in the Sevallick hills, between the Jumna and Sutlej rivers. On a new species of snake. Mastodonta dentetroites. Mastodons of Sevallicks. Manufacture of tar in the Sevallick hills. Panchukki or corn mill. Fossil giraffe. Dam sluices. Remarks on the fortress of Aligurh. Caramssa bridge.—*Gleanings of Soc. Beng. As. S. Tr.* 1834. *Parlby's Military Repository Lond. Geol. Soc. Tr.* 1840.

CAUTOVANGA, a dark coloured, and very strong wood of Palghat, used for wheelwright's work.—*Col. Frith.*

CAUVERY, a river of the peninsula of India, which rises in the mountains of Coorg, 50 miles from Mangalore, in L. 12° 25′ N., and L. 75° 35′ E., and after an easterly course of 472 miles, it disembogues into the Bay of Bengal. It receives in its course the Magunmurchy, 40 miles; Bhovani, 120 miles; Noyel, 95 miles; the Hennavutty; Leechman-Teert; Cubbany; Shimska; Aikavati; Ambrawuty. and about 36,000 square miles are drained, The towns of Seringapatam, Trichinopoly, Tanjore, and Tranquebar are on its banks, as it passes through Mysore to the coast. At Trichinopoly, it forms the island of Seringham, and a mound at Coiladdy prevents the rejunction of the Cauvery and Coleroon, and the stream is led into numerous large irrigating channels that are conducted all through Tanjore. The largest of these are the Vettar, the Vellar and Arselar, all of which enter the

Bay of Bengal. Navigable for craft through the low country during the inundation. The Gungan Zooka fall, 370 feet, Burr Zooka, 460 feet, occur in its course.

CAUVERYPAUCK, a place midway between Conjeveram and Arcot. Clive gained a battle here in February 1752, and the place surrendered to him.

CAVE. Eng.
Koo, Burm. | Ghar, Arab. Pers.

CAVA or Kava, also called Ava Pepper, is from the Macropiper methysticum of the Pacific. Its root produces a stimulating liquor.

CAVATUM PILLOO. Tam. Syn of Andropogon citratum.

CAVE TEMPLES, and monasteries in India, are very numerous. They consist of stupendous excavations and monolithic structures made many centuries ago for religious and monastic purposes. These remains are found more especially in Western India and the Nizam's dominions, but some are near Prome in Burmah; there are a few in the Madras Presidency; a number in the Bombay Presidency; several in the Hyderabad dominions; many in Bengal, others in Behar, in Malwa, in the valley of the Indus, among the wild mountains of Beloochistan and Affghanistan and Bamean. There are carved hills and a long series of cave-temples, full of elaborate sculptures representing half-human, half-bestial shapes, and lordly forms of races which have now passed away from earth. In Western India alone, including the Nizam's dominions, there are at least thirty series of cave-temples which have been examined by Europeans, besides a number of others which, on native information, are reported to exist. The excavations in the Ajunta ravine are very remarkable, and are the most important of the Buddhist caves. The excavations of Adjunta are entirely Buddhistic, and do not serve to illustrate the Jain and Brahminical cave-temples. The Kylas at Ellora is a wonderful work of art—is one piece of rock— in fact, a small hill, cut into a temple. The caves of Elephanta overlook the harbour of Bombay; those of Karli are close to the high road from Bombay to Poona. The most splendid cave temple in India which could be selected for reproduction by art is the principal excavation at Karli, and it is also interesting as the oldest Indian work of the kind known to exist. The caves of Kennery are in the island [illegible]ette, and the monastic system of the [illegible] has its finest illustration in the [illegible] dormitories, chapels, halls, and te[illegible]ery, which the strange life of the Bu[illegible]tem created, and which was at once its highest glory and the cause of its decay.

The Ajunta caves are on the face of the mountain, in a narrow ravine in Kandeish, and were described by Dr. Bird and Mr. Fergusson along with those of Bajah and Beera in Bom. As. Trans. 1842, vol. i., 438. Account of Baugh in Malwa, by Captain Dangerfield, in Bom. Lit. Trans, vol. ii., 194. Hamilton's Account of Keneri, in Description of Hindostan, vol. ii., 171. Mr. Erskine wrote on the Temples of Western India in Bom. Lit. Trans. vol. ii. Dr. Bird's Account of Cave Temples, vol. i., plates. Bombay 1848. Dr. Stevenson wrote on Elephanta in Bom. As. Trans. 1852.

In the caves at *Karli near Poona*, are numerous inscriptions in the Pali language, of date B.C. 543, (*Dr. Wilson,*) but if the Salivahana era be intended, then the date A.D. 176 (*Dr. Stevenson,*) the character used in those inscriptions is slightly modified Lat. The religion, or divinities or sages mentioned are buddhist, the invocation is to the Triad; no doubt meaning Buddha, Dhurma, Sanga. Of the kings or princes mentioned, Dr. Wilson says, Vijara; Dr. Stevenson, Arodhana, lord of India, Garga, ruler of the Shaka. Drs. Wilson and Stevenson are not quite agreed about the reading. Of the numerous Buddhist inscriptions in the cave temple at Karli, Garga, the "ruler of the Shaka" (Sakya, Buddha's tribe), is mentioned. Dr. Stevenson mistakes the language for Sanskrit, which Mr. Prinsep, from copies sent by Col. Sykes, proved to be Pali. The excavation of the temples, and gifts by individuals in aid, are mentioned. *Vol.* iii., *p.* 499.

The cave temples in the southern part of India are classed by Mr. Fergusson into

(*a*) The Vehara or monastery caves, which consist of (1) natural caverns or caves slightly improved by art. These are the most ancient, and are found appropriated to religious purposes in Behar and Cuttack. Next (2) a verandah opening behind into cells for the abode of priests, as in Cuttack and in the oldest Vehara caves. Ajunta (the third) has an enlarged hall supported on pillars. The most splendid of these caves are those of Ajunta, though the Dherwarra at Ellora is also fine, and there are some good specimens at Salsette and Junir.

(*b*) Buddhist Chetya caves form the second class. These are the temples or churches of the series, and one or more of them is attached to every set of caves in Western India, though none exist on the eastern side. Unlike the Vehara, all these caves have the same plan and arrangement. The Karli cave is the most perfect in India

All these consist of an external porch or music gallery, an internal gallery over the entrance, a central aisle which may be called a nave, roofed by a plain waggon vault, and a semi-dome terminating the nave, under the centre of which always stands a Dahgopa or Chaitya. In the oldest temples, the Dahgopa consists of a plain central drum, surmounted by a hemispherical dome crowned by a Tee, which supported the umbrella of State of wood or stone. These two classes comprehend all the Buddhist caves in India.

(*c*) The third class consists of Brahminical caves properly so called. The finest specimens are at Ellora and Elephanta, though some good ones exist also on the island of Salsette, and at Mahabalipur. In form many of them are copies of and a good deal resemble the buddhist vihara. But they have not been appropriated from the buddhists, as the arrangement of the pillars and position of the sanctuary are different. They are never surrounded by cells as all Veharas are, and their walls are invariably covered or meant to be covered with sculpture, while the Veharas are almost as invariably decorated by painting, except the sanctuary. The subjects of the sculpture of course always set the question at rest.

(*d*) The fourth class consists of rock cut models of structural and brahminical temples. To this class belong the far-famed Kylas at Ellora, the Saivite temple at Doomnar, and the Ruths at Mahabalipur. This last is cut out of isolated blocks of granite, but the rest stand in pits.

The Indra Subha group at Ellora should perhaps form a fifth, but whether they are Brahminical or Jaina is undecided.

The fifth or true Jaina caves occur at Khandagiri in Cuttack and in the southern parts of India. But are few and insignificant. In the rock of Gwalior Fort, there are cut in the rock a number of colossal figures, some thirty to forty feet high, of one of the Thirtankara, some sitting, some standing. Their dates are about the tenth or twelfth century before Christ.

The Behar caves are in the neighbourhood of Rajahgriha. The Milk maid's cave, and Brahman girls cave, have inscriptions in the Lath character. They are of about 200 B.C., and are the most ancient caves of India. The Nagarjum cave and Haft Khaneh or Satghur group are situated in the southern arm of the hill at some little distance from the Brahman girl and Milkmaid's cave. Another group is the neighbouring Karna chapara and Lomas Rishi cave.

The caves of Udyagiri and Khandagiri hill, about twenty miles from Cuttack, and five from Bcban Eswara, are next in antiquity to those of Behar. They are built on the hills of Udyagiri and Khandagiri. The former are Buddhist and the older; the latter, probably, are Jaina. Many of the inscriptions are in the Lath character, and this gives their age as anterior to the Christian era. The frieze sculpture in the Ganes gumpha is superior to any in India, and resembles that of the Sanchi tope at Bhilsa. In it there are no gods, no figures of different sizes nor any extravagance. On the buddhist caves here, there are no figures of Buddha, or any images. In a Jaina cave on Khandagiri, the twenty-four Thirtankara; with their female energies, are sculptured.

The Ajunta are the most complete series of buddhist caves in India, without any mixture of brahmanism and contain types of all the rest. They are in a ravine or small valley in the ghat south of the Taptee. At Baug in a ravine or small valley in the ghat on the north side of the valley of the Taptee, are three ancient buddhist caves.

Those of Karli are not so extensive as the Ajunta, but still purely buddhistical, and containing the largest and finest chaitya cave in India, Karli is about halfway between Poona and Bombay on the right hand side of the valley, as you proceed towards the sea.

The Salsette or Kenneri caves in the island of Salsette are also purely buddhist, but very inferior to the former. The Kenneri caves are excavated in a hill situated in the midst of an immense tract of forest country, and Mr. Fergusson supposed their date about the 9th and 10th century of the Christian era.

Dhumnar, about 40 miles south east from Nemuch, but close to Chundivassa, contains buddhist caves with a brahmanical rock temple behind.

The Ellora caves are excavated in a porphyritic greenstone or amygdaloid. The Elephanta caves are cut in a harder rock than those at Ellora. Those of Dhumnar and Ellora contain a strong admixture of Brahmanism, and those of Elephanta are entirely Brahmanical, though perhaps of the same age as those of Ellora. Mahabalipuram, or Seven Pagodas between Covelong and Sadras, south of Madras, have been described by Dr. Babington in Vol. 11 Trans. R. A. S. p. 258; by Messrs, Chambers and Goldingham in A. R. Vol. 1, p. 145, and V. p. 69, by Mr. Charles Gubbins in Bengal As. Soc. Journal. and these reports have been completed by Major Carr. The Mahabalipur caves are entirely Brahmanical, and have been excavated after all the other series were formed.—*Fergusson's Rockcut Temples of India, Vol. III, p.*

499. See Ajunta. Buddha. Nasik. Junir. Kanari. Karli. Garuda.

CAVES OF BURABUR. See Inscriptions p. 392.

CAVE IN GHARIPURI. See Buddha.

CAVE IN NASIK. See Buddha.

CAVE VIHARA. See Buddha.

CAVIARE. Eng.·

Gna-Pi,	Burm.	Caviarium,	Lat.
Cavial	Fr.	Balachau.	Malay.
Caviar,	„	Balachau Trasi	„
Kaviar,	Ger.	Ikra,	Rus.
Caviario,	It.	Caviario,	Sp.
Caviale	„		

Caviare, a substance prepared in Russia, consisting of the salted roes of large fish. The best, which is made from the roe of the sturgeon caught in the Volga, in the neighbourhood of Astrachan, appears to consist entirely of the eggs: it is packed in small kegs, but the inferior sort is made into the form of dry cakes. It is highly esteemed in Russia, and also forms an article of considerable export; 30,000 barrels having been exported from Astrachan in a single season. The manufacture consists in separating the roe from its membranes, then washing in vinegar or white wine, and drying by spreading it out on a board in the air. Salt is then well rubbed in, and it is next put in a bag and the liquor pressed out. It is then packed in kegs for sale. During the three annual seasons of fasting in Russia, the consumption of caviare is very great, as it is also in Italy during the fasts of the church. It is eaten on bread, with oil and lemon juice or vinegar.—*Tomlinson, page* 354. See Balachan.

CAVIARIO. It. Sp. Caviare.

CAVIARIUM. Lat. Caviare.

CAVITA VIRKSEA. Can. Feronia elephantum.

CAVITE, in lat. 14° 29′ N., the port and marine arsenal of Manilla, where ships are built and repaired.

CAWA-ARANG, a light brown or pale brown coloured wood of Penang, from a very large tree; used for furniture and ornamental work.—*Frith.* (Qu. Kaya arang.)

CAWNEE, from Kani, Karn. Tam. Tel. In Cuttack a handsbreadth. In the south of the peninsula of India a land measure. At Madras the standard cawnie is twenty-four Manai or Grounds, each of 2,400 square feet. The cawnie is therefore 57,600 square feet=1·322 of an English acre. Another measurement, however, makes it somewhat less than an acre.—*Wilson.*

CAWNPORE, a military station and town on the bank of the Ganges river, in the Allahabad district of the N. W. Provinces of India, 140 miles north-west of Allahabad. On the 26th June 1857, it capitulated to the rebels under Nana Rao, under promise of safe escort, but the garrison, under General Wheeler, were all destroyed, and on the 15th and 16th July all their wives and children were destroyed and thrown into a dry well. In and above the well at the entrenchment, and in the well of the slaughter-house, lie the bones of no less than 420 civilians, military officers and their wives, 400 private soldiers and their wives, and musicians, besides infants. If to these we add the Futteghur party and those who perished outside the entrenchments, we have not less than a thousand christians, the majority of whom were murdered in cold blood by order of Nana Rao. Seven christian men, including Delafosse and Thomson, twelve women and six faithful natives, who entered the entrenchment, alone ultimately escaped. Nineteen christians and five children, who remained in Cawnpore, escaped by aid of the natives, besides a few drummers. Nana Row seems to have died in the forests of Nepaul. Cawnpore was retaken by General Havelock on the 17th July 1857.

CAYAPUTI OIL. Oil of Cajeput. See Caputi.

CAY-BOUNG-NGOT, also Hac-minsau, Coch-Chin. .Emblic myrobalan.

CAYENNE PEPPER. Eng. Syn. of Capsicum annuum, also Capsicum festigatum.

Filfill-achmar,	Ar.	Chabai; Chabe; Lombok; Ladamera; Lada chena	Malay.
Tabia,	Bali.		
Meneshena,	Can.		
Poivro d' Espagne,	Fr.	Filfil-i-surkh,	Pers.
Spanischer Pfeffer,	Ger.	Brahu-maricha,	Sans.
Lal-mirch,	Guz. Hind.	Gas-miris,	Singh.
Peperone commune,	It.	Mollagai,	Tam.
Lombok,	Jav.	Merapa-kaia,	Tel.

The powder of the dried pods of different species of capsicum, used as a stimulating condiment. See Capsicum.

CAYHU-YNHDAN. Cochin-Chin., or Cayhu-ndahn. Coch-Chin. Sandal wood.

CAY-KHE. Coch-Chin. Millet.

CAY-KHOAICA. Coch-Chin. Aristolochia indica.

CAYLEY, Dr. Henry, a Bengal Medical officer who entered the service in January 1857. He was employed during the revolt of the Bengal soldiery and rebellion of 1857-8, at Benares, Allahabad, and Gorukpore. In May 1867, he went to Le in Ladak as political agent, in the territories of the maharajah of Cashmir, to protect and encourage commercial intercourse through Ladak between India and Central Asia, and watch political events in Central Asia and Eastern Turkestan.

CAY-ME. Coch-Chin. Tamarind.

CAY-TANH-YEN. Coch-Chin. Limes.

CAYU-MANIS. Jav. Cassia lignea.

CAY-VANG DEE. Coch-Chin. Sassafras.

CAZEE, a mahomedan judge, religious and civil. See Kazi.

CAZVINI, or CASBINI. The name in history of *Zacaria bin Mahomed bin Mahomed al-Kousi al-Kazvini.* He wrote the Ajaib-al-Makhlukat, or the Wonders of Creation in the Arabic tongue. It treats of natural history, of the qualities of animals, vegetables, and minerals, as also of waters, aerial spirits, fairies, genii, and talismans; but all, with a view to confute the Jewish rabbins. His work is much esteemed by the Orientals. It has been translated out of Abrabic into the Turkish language, and also into Persian.—*Hist. of Gengis Can., p.* 418.

CAZVINI. There is another *Cazvini*, who is the person meant by *Abd-al-Latif,* author of the book called *Lubbat Tavarikh.* He is cited by Golius in his Notes on *Alfargani,* pp. 4, 5, 6, and 22. *History of Genghiz Can, p.* 418.

CEANOTHUS PANICULATUS. Heyne. Syn. of Celastrus paniculatus. *Willd.*

CEBADA. Sp. Barley.

CEBADA. Retonada-o-Entallecida. Sp. Malt.

CEBOLA. Port. Onion.

CEBOLA ALBARRANA. Sp. Squill.

CEBOLLA. Sp. Onion.

CEBRIO, one of the Coleoptera of Hongkong.

CECROPIA PELTATA of Borneo, yields caoutchouc.

CEDAR. Eng.

Erz.	Ar.	Cedro.	It.
Eraza.	,,	Cedrus.	Lat.
Ceder.	Dut.	Kedr.	Rus.
Cedre.	Fr.	Cedro.	Sp.
Zeder.	Ger.		

A commercial term given to the woods of several distinct kinds of forest trees, the timbers of which are distinguished as Red and White Cedar; Barbadoes, and Bermuda cedar; Cedar of Lebanon, Pencil cedar, Bastard cedar, &c., some of them growing in America, some in Europe, and some in Asia. The cedar of Lebanon, so famous in Scripture, was, in ancient times, much employed in the construction of temples, and for other religious buildings and purposes. It is usually supposed to be Pinus cedrus, called Cedrus Libanus or Cedar of Lebanon. The lofty Deodara, a native of the Himalayas, with fragrant and almost imperishable wood, and often called the Indian cedar, is sometimes referred to the genus Pinus, and sometimes to Abies, Cedrus or Larix, with the specific name of deodara. But Dr. Hooker is of opinion that the Deodar and the cedar of Lebanon are identical. The cedar wood of scripture is supposed to be the sandarach tree, Thuja articulata. The woods of several of the Conifera are called cedars. But, in India, the term Bastard cedar is applied to the Guazama tomentosa; while in New South Wales, the term white cedar is applied to Melia azaderach, and red cedar to that of Flindersia Australis, and the name of Cedar is also given in India to the woods of the Cedrela toona and Chickrassia tabularis. In China, a kind of cedar, probably a cypress, called Nan Mah, or southern wood, which resists time and insects, is considered peculiarly valuable, and is especially reserved for imperial use and buildings, and the cedar-wood of Japan, according to Thunberg, is a species of cypress. The cedar of Guiana is the wood of Icica altissima. The White Wood or White Cedar of Jamaica is Bignonia leucoxylon. The word "cedar," in the United States, is applied to various genera of the pine family. The White Cedar of the southern swamps is a cypress; the wood of Juniperus virginiana is called Red or Pencil cedar, that of J. Bermudiana is called Bermuda cedar, and that of J. Barbadensis is called Barbadoes cedar, while the Juniper of the north of Spain, and south of France and of the Levant, is from J. oxycedrus. The white cedar of North America, a less valuable wood than the red cedar, is yielded by Cupressus thyoides. The cedar of New Zealand is Hartighsea spectabilis. The cedar of the Amazon is from the Cedrela odorata of Von Martius. Under the term cedar, Colonel Frith describes a reddish coloured wood of Palghat, specific gravity 0·507, as a large tree, wood aromatic and used for furniture, and under the name of cedar-root, a very aromatic wood, used for ornamental furniture in Palghat. These two are possibly from the Cedrela toona. The wood of the Cedar of Lebanon, as now met with, is not in much esteem, but that of the Cedrus deodara of the Himalayas, really possesses all the good qualities for which those of Lebanon were praised. Specimens of the wood of the Indian cedar, Cedrus deodara, and of the cypress, "Cupressus torulosa" from the Himalayas, were shown by Dr. Royle at the Exhibition of 1851: the former has been introduced into England as a beautiful ornamental tree, but appears to promise well as a useful timber tree, as the wood works well and freely.—*Faulkner, Dr. Hooker, Holtzappfel, McCulloch, Williams' Middle Kingdom, p.* 275. *Burton's City of the Salt Lake. Harris, Nat. Hist of Bible.* See Chickrassia tabularis. Japan.

CEDAR, BASTARD. Eng. Wood of Cedrela tuna. *Roxb.*, also the wood of Guazama tomentosa, *Kunth.* See Cedar. Cedrela toona.

CEDAR OF GOA. Cupressus Lusitanica. See Evergreens.

CEDAR OF GUIANA. See Deodar.

CEDAR OF INDIA. Eng. Abies deodara. Cedrus deodara.

CEDAR OF LEBANON. Eng. Abies cedrus. See Evergreens.

CEDAR, PENCIL. Eng. Juniperus excelsa.

CEDER. Dut. Cedar.

CEDOARIA. Sp. Zedoary.

CEDRE. Fr. Cedar.

CEDED DISTRICTS, a territory in the Madras Presidency in the very centre of the peninsula, now apportioned into the Bellary, Cuddapah and Kurnool collectorates. This tract of country belonged to the Mysore sovereign Tippu, and after his death, fell to the share of the Hyderabad state. Shortly afterwards, under the treaty of 1803, this share was ceded to the British on their agreeing to provide a subsidiary force of about ten thousand soldiers. Their numbers in 1868 did not exceed 5,000, and were all stationed at Secunderabad, six miles from Hyderabad in the Dekhan.

CEDRELACEÆ. See Cedrela toona. Chickrassia. Chloroxylon swietenia. Satin wood tree.

CEDRELA FEBRIFUGA, Syn. of Soymida febrifuga.

CEDRELA HEXANDRA. (Wall. in Roxb). Syn. of Cedrela tuna, *Roxb.*

CEDRELA SERRATA. Royle.

Hill Toon	Eng.	Drawi	Hind.
Drawa	Hind.	Dimri	,,

This tree of the valleys of the N. W. Himalaya, is to be recognised by its long racemes of flowers. It grows in Kulu and Kangra and Kaghan.—*Clegh. Punj. Rept. Voigt.* 137.

CEDRELA TOONA, Roxb. *Cor. W. and A.*
C. hexandra, *Wall. in Roxb.*

Tunna.	Beng. Sansc.	Soori Tree	Eng.
Kooruk of	Bombay.	Toona	Hind.
Thit-ka-do.	Burm.	Toon	Mahr.
Tunda.	Can.	Kooruk	,,
Sanola mara.	,,	Loodh ?	Sans.
Toon tree.	Eng.	Toona maram	Tam.
Bastard cedar.	,,	Wunjooli maram ?	,,
,, mahogany.	,,	Nandi	Tel.
Indian mahogany		Maha limbo.	Uria.

This large and valuable tree grows at the foot of the Himalayas and to the south, in Bengal and both peninsulas of India, in varying abundance. It is said to be abundant in Travancore. A specimen of wood sent by General Cullen, as of this tree, showed the grain and polish remarkably well: it was however of a brighter colour, and apparently of a denser quality than any met with in the market, inducing a doubt as to its being of the same species. It was stated to be abundant 25 miles north-east of Trevandrum. The tree is found in the Mysore and Salem jungles in large quantities, also along the crest of the hats from Travancore to Goa. In Coimba- [illegible] timber tree of large size, and its reddish coloured wood is used for cabinet-making purposes. It or an allied species is known also in Coimbatore under the name of Wunjoolî maram; but, as this is a very heavy and strong hard wood, said to be admirably fitted for pestles and mortars and other purposes demanding great strength, but not for cabinet purposes, Dr. Wight suspected Roxburgh's toona and the wunjooli to be different trees. Dr. Gibson reports that he had found this choice tree in one situation, viz., inland of Koorsulee; but adds, it probably exists all along close below the ghats; and, at another place, he says that it is not a common tree in our forests, but found in some of the greenwood jungles about the ghats, and also in the hill range abutting on the Rajpooree Creek to the south. The wood is a choice one for cabinet purposes, but is not used for any others, except for house beams when it is procurable in sufficient quantity. In the raees of the south Konkan and lower Canara, the tree is more common. It is, in as far as he was aware, never found inland. And again, he says it grows abundantly in some of the deep ravines in western Kandesh, and it grows in the ravines of the Concan. . In Ganjam and Gumsur, where it is known as Mahalimbo, its extreme height is 70 feet, circumference 5 feet, and height from the ground to the intersection of the first branch 22 feet. Under this trees' name, Captain Sankey describes a Nagpore timber as averaging 10 to 12 feet long and 3½ to 4½ feet in girth, and selling at 16 annas the cubic foot. At the Tambur river, in East Nepal, the vegetation in some spots is exceedingly fine, and several large trees occurred. Dr. Hooker measured a Toon tree (*Cedrela*) thirty feet in girth at five feet above the ground. In Kulu and Kangra, the wood, of a red color is esteemed for furniture, being very durable. The Jaswan Dun was once famous for toon wood, but scarcely a tree is left. Dr. Cleghorn urged the zemindars and English settlers to plant it along the banks of water courses in Kangra valley. South-easterly, Lieut Nuthall, as quoted by Captain Munro, mentions toon as one of the woods of Arracan, under the name of "thit-ka-do." A tree is found, also, Dr. Brandis tells us, on the hills and on the plains of British Burmah, plentiful in some districts and, if not identical with the Toon of Bengal, is certainly nearly related to it. A cubic foot of the Burmah wood weighs lbs. 28. In a full grown tree on good soil the average length of the trunk to the first branch is 40 feet and average girth, measured at 6 feet from the ground is 8 feet. It sells in Burmah at 8 annas per cubic foot. It will be seen from the above, that it has a wide range throughout India, furnishes a beautiful wood, in the northern provinces, made into furniture of all kinds, and much admired for its close grain and beautiful colour, resembling mahogany, though lighter than it and not so close grained, but to which it is deemed equivalent. It is called BastardCedar from an aromatic resin exuding from it, resembling that of the American cedar. It is often sold in Madras under the general name of "Chittagong wood," and is the most valuable of the woods known by that commercial name. The true Chittagong wood, however, being Chicrassia tabularis. Cedrela tuna has an erect trunk of great height and size, with smooth grey bark. The flowers are very numerous, small, white and fragrant, like honey. The seeds are numerous, imbricated, winged. It seems probable that the trees known "commercially" as Toon are at least different species; but the woods sold under this name are all red coloured, of varying hues. It is used all over India by cabinet makers for furniture. The Gumsur "*Mahalimbo*" wood, said to be this tree, and to be tolerably common, is described as not liable to be attacked by insects, and is, on that account, used for making boxes, &c. The fruit and bark are used medicinally in fever and rheumatism. The bark is powerfully astringent, but not bitter. The native physicians use it in conjunction with the powdered nut of the Cæsalpinia bonducella, an intense bitter. M. Nees von Esenbeck has published an account of some experiments on the bark, which indicated the existence of a resinous astringent, a brown astringent matter, and a gummy brown extractive matter resembling *ulmine.* The bark was used in Java by Blume, in epidemic fevers, diarrhœa and other complaints. Horsfield gave it in dysentery, but only in the last state, when inflammatory symptoms had disappeared. Its flowers, in conjunction with safflower (koosumbha) are used by the inhabitants of Mysore for dyeing the beautiful red colour called there Gul-i-Nari.—*Drs. Roxburgh* i. 635, *Hooker, Mason, Gibson, Cleghorn in M. E. J. R., Cleghorn in Punjab Report, Kulu and Kangra, Ainslie, O'Shaughnessy and McClelland. Captain Macdonald, Captain Hankey, Voigt.* p. 137.

CEDRO. It. Sp. Cedar.

CEDRON or **KEDRON**, a brook that rises about two miles from Jerusalem, and flows through the valley of Jehosaphat to the Dead Sea.

CEDRUS. Lat. Cedar.

CEDRUS DEODARUS. Lambert.

Cedrus Libani ? *Loud.*
„ Atlantica ? *Mau.*
Abies deodara.
Pinus „ *Lambert.*

Deodar	Eng.
Sacred Indian Fir	„
Himalayan cedar	„
Deva Dara	Hind.
Kelu	Himal.
Kilei	Himal.
Killar	„
Kelmung	Tibet.
Keling	„

The weight of scientific evidence goes to prove that the Himalayan cedar is identical with that of Lebanon and Taurus in Asia Minor. This is one of the Coniferæ, and grows in the N. W. Himalaya, in Kullu and Kangra, along with several others, of which Dr. Cleghorn names the following, viz:

Kelu, Cedrus deodara, Deodar or Himalayan cedar. Grows on the north slope of Dhaola Dhar, and in Kullu.

Kail, Pinus excelsa, Lofty pine, in Kullu, not in Kangra.

Chil or Chir, P. longifolia, Long-leaved pine. Grows luxuriantly on north slopes, timber best at 4-5000 feet.

Neoza, P. gerardiana, Gerard's, or edible pine. A few trees across the Dhaola Dhar, near Ulassa on the Ravi.

Tôs, Picea Webbiana, Webb's pine or silver fir. The wood is not much valued; its shingles are laid on the roofs of houses.

Rai, Abies Smithiana. Himalayan spruce. The rai is often 100 feet high, and 5 feet in diameter.

Deodara, Cupressus torulosa, Twisted cypress. At the head of the Parbati (*Longden*).

Bramhi or Rakhab, Taxus baccata, Common yew. In Kullu, very scarce.

Leuri or Suri, Juniperus excelsa. Pencil cedar. On the crest of Dhaola Dhar and in Lahul.

He is of opinion that plantations of the indigenous pines would not answer. At present, he says we have no record of the growth of Himalayan conifers, but we know that they grow very slowly. Mr. Batten states "it is difficult in a garden, with every means of watering at hand, to show a good sized chir tree, Pinus longifolia, after ten years of care," and the Rev. Mr. Parker furnishes the following approximate rate of the growth for this tree, Pinus longifolia. He writes, "I think that trees of the diameter named below have the ages assigned to them or nearly so. 6 inches in 20 years, 9 in 30, 12 in 45, 15 in 55, 18 in 70."

The distribution of the Himalayan pines he adds is very remarkable. The Deodar has no been seen east of Nepal, nor the *Pinu Gerardiana, Cupressus torulosa* or *Juniperu communis*. On the other hand, *Podocarpus* i confined to the east of Katmandoo. *Abies Brunoniana* does not occur west of the Gogr nor the larch west of the Cosi, nor funere cypress (an introduced plant howeve the Teesta, in Sik and Bhotan *Coniferæ* (including yew, juniper, and *Podocarpus*), eight are common to the North-west Himalaya (west of Nepal) and four are not: of the thirteen natives of the North-west Provinces, again, only five are not found in Sikkim, and he adds, I have given their names below, because they show how European the absent ones are, either specifically or in affinity. I have stated, he continues, that the Deodar is possibly a variety of the Cedar or Lebanon. This is now a prevalent opinion, which is strengthened by the fact that so many more Himalayan plants are now ascertained to be European than had been supposed before they were compared with European specimens; such are the yew, *Juniperus communis*, *Berberis vulgaris*, *Quercus ballota*, *Populus alba*, and *Euphratica*, &c. The cones of the Deodar are identical with those of the Cedar of Lebanon; the Deodar has, generally, longer and more pale bluish leaves and weeping branches, but these characters seem to be unusually developed in English gardens; for several persons, well acquainted with the Deodar at Simla when asked to point it out in the Kew Gardens, have indicated the Cedar of Lebanon, and when shown the Deodar, declared that they never saw that plant in the Himalaya.—(*Hooke's Him Jour.* Vol. II., p. 41.) If this be identical with the Abies cedrus, the Cedar of Lebanon, the Pinus Cedrus, *Linn.*, *Lamb.*, it grows also in Lebanon and the Taurus range of Lebanon, but the cedar wood of Scripture is supposed to have been from the Sandarach tree, the Thuja articulata. The Cedrus deodara is a magnificent tree with a trunk from 12 to 30 feet in girth, growing on the mountains of Kedar Kantha, Nepaul and Thibet, up to heights of 7,000 and 12,000 feet, as also in the woods of Almorah, at Kullu, Kangra and Kaghan, but in Hazara it is scarce. It resembles the cedar of Lebanon, but, unlike it, the resinous wood of the Deodar is very durable, lasting from 200 to 400 years. It has succeeded well in England. The tract in the Sutlej valley producing deodar, lies between 77° 59′ and 78° 31′ east longitude, and 31° 23½′ and 31° 40′ north latitude. (*Punj. Rep.* p. 4.) The deodar is not abundant in Hazara (except in Kaghan), and is becoming scarce. Dr. Cleghorn only observed it on the north side of the Mochpura range, towards the Jelum, and sparingly on Thandiani. Dr. Cleghorn says that Mr. Strong measured a deodar tree in the deodar forest at Nachar after felling 122 feet long, the but end girth 14 feet 6 inches, and the top 12 feet 4 inches another standing about 150 feet high, girth, at bottom 18 feet, 4 inches; these are not exceptions. Some he measured 26 feet in girth. The average, taking the whole forest, is not less than 15 feet girth at bottom. The soil is black loam, very rich, and the trees are full of turpentine. Cedrus deodara timber is very useful for railway purposes, and 12,000 tons were sent down the Chenab in one year. Deodar is abundant in Bussahir. In the territories of Mandi and Sukhet, and in the Hill states of Koti Kamharsen, and Bagi, which overlook the lower Sutlej, all the good deodar trees ("Kelu") have of late years been removed from within three miles of the river, but the interior hills of Bussahir are extensively clothed with the finest deodar, particularly on the upper parts of the northern slopes, commencing at Nachar, and terminating near the Hangarang ridge, which forms the northern limit of this beautiful tree; and indeed, of all arboreous vegetation, except birch and junipers.

In the Nachar forest, Dr. Cleghorn measured one tree twenty-eight feet in circumference, at four feet from the ground. A remarkable tree in this locality was mentioned by Drs. Thomson and Hoffmeister as thirty-six feet in girth, but it divides into two trunks. In travelling along the Hindustan and Tibet road, many Cedars may be seen twenty feet in girth, and 100 to 130 feet in height. The remaining forests of the deodar should be carefully preserved. Its wood is fragrant, of a reddish yellow colour, highly resinous and inflammable; very durable, yields valuable timber, it is also not subject to warp. The natives of the hills venerate the groves surrounding their temples and religiously conserve them, whilst to the state, the wood is of the greatest importance for house and bridge building.—*Eng. Cyclop. Clegh. Rept. on Punj. Kulu and Kangra, pp.* 4 to 190. *Hook. Him. Journ.*, *Vol.* ii. p. 41. *Hodgson's Nagasaki, pp.* 342 *&* 3. *Royle's Ill. Him. Bot. p.* 350.

CEDRUS LIBANUS. Cedar of Lebanon. See Deodar.

CEIBA PENTANDRA, GÆRT. Eriodendron anfractuosum, *D. C.*

CELASTRINEÆ. Spindle trees. ENG. The English name is derived from the use made of its very compact wood.—*John's Forest Trees of Britain, Vol. I.*, *p.* 34.

CELASTRUS EMARGINATA. WILLDE. This shrub, which grows on the Coromandel coast, makes good fences and fuel.—*Voigt.*

CELASTRUS MONTANA, ROXB.; *W. & A.*; *W. Ic.*

Celastrus paniculatus. *Wight.*

Kangunee,	MAHR.	Gaja Chinno,	TEL.
Mal Kangunee,	HIND.	Gi-changi,	,,
Danti Chettu,	TEL.	Pedda danti,	,,

A scrubby, crooked shrub, found on the Coromandel Coast and in barren hills, chiefly of the Deccan. The wood, hard and durable, is sought after as a choice dunnage for roof tiles, said to last for forty years, a duration greatly exceeding that of any other dunnage material.—*Roxb. Gibson. Voigt. Rohde.*

CELASTRUS NUTANS. Roxb. *Fl. Ind.* Syn of Celastrus paniculatus. *Willd.*

CELASTRUS PANICULATA, Willde.; *Roxb.; Wight & Arn.; W. Ic.*

Celastrus nutans, *Roxb.*
rothiana, *Schultes.*
Ceanothus paniculatus, *Heyne.*
Scutia paniculata, *Don.*

Staff tree.	Eng.	Bavungi.	Tel.
Malkangni.	Hind.	Gundu meda.	„
Vall-ulavi.	Tam.	Maneru.	
Mal kangkanni.	„	Mai erikata.	
Mala-erikata.	Tel.	Maiyala erikat.	

The oil.

Malkungunee oil.		Oleum Nigrum.	
Staff Tree oil.		Valuluvy tylum.	
Valuluvy yennai	Tam.	Malkungunee ka tel	Hd.
Bavungie noona	Tel.	Vaylarie tylum	Tam.

The Leaves.

Kataj	Hind.	Kuter	Hind.

A large scrambling shrub, grows in most parts of India. Seeds have a very hot biting taste, and yield an empyreumatic oil by destructive distillation, either alone or in combination with other ingredients. It was at one time much used in the treatment of Beri-beri. The red seeds are given to cattle and are officinal, being considered hot and administered for rheumatism. The leaves also are officinal, and a deep scarlet colored oil, obtained by expression from the seeds, is rubbed and given internally in rheumatism; the oleum nigrum, an empyreumatic black oily fluid, is obtained by the destructive distillation of the seeds, but it does not differ in any sensible degree from the empyreumatic products of the distillation of the common fixed oils, containing naptha and other carburets of hydrogen. Large quantities would doubtless yield paraffine and creosote. In Ajmere the seed is imported from Marwar and Godwar, is there considered sudorific, and generally heating, and is swallowed whole in rheumatism. It is used in horse mesalihs.—*O'Shaughnessy, p.* 271, *Genl. Med. Top. p.* 146. *Dr. J. L. Stewart. Malcolmson, p.* 312.

CELASTRUS ROTHIANA. Schult. Syn. of Celastrus paniculatus. *Willd.*

CELASTRUS SCANDENS. Celastrus Senegalensis, Celastrus venenatus. See Celastrinæ.

CELEBES, an island in the Eastern Archipelago, in configuration has been compared to a star-fish, from which the radiating limbs on one side have been removed; and this very singular form also distinguishes Gilolo, an island not far distant from it to the eastward. Mr. St. John describes its climate as salubrious, restores to health the constitutions impaired by residence on the marshy plains of the less elevated regions of India. Celebes occupies the centre of the tropical zone, and lies in the Molucca sea. Its length and breadth it is difficult to estimate, being composed of four peninsulas, with an area of 3578 miles. (*Melville de Carnbee, Moniteur des Indes Orientales*). Its coast presents a great number of bays, gulfs, and capes of eccentric outline. The surface is lofty, with considerable hills, and towards the north are several active volcanoes. Some of the mountains rise seven thousand feet above the level of the sea (*Temminck, Coup de Œil sur les Possessions Neerlandaises*, iii, 81), usually with round or flat tops. Though a mountainous island, Celebes presents along the borders of the sea wide plains covered with verdure and beautiful valleys, some of which enclose magnificent basins of limpid water, raised on a smooth plateau, encircled by a rim of low hills. Thick forests cover the hills and large tracts of the level country with oaks, maples, sycamores, cedars, teak-trees, and the upas. Celebes is less populous in proportion to its extent, than many other islands of the Archipelago.

Klabat is a conical volcanic mountain, rising 6,500 feet above the sea in the northern peninsula of this island; the two southern prongs of this island form the Gulph of Boni, which stretches three degrees northward into the centre of the island. Its entrance is about eighty miles wide, but narrows to thirty miles, till at its head it again expands to forty-five miles. Celebes, on its eastern coast, is fronted by islands, and many islands are scattered over the bays of Tolo and Tominie, or Goonong Tella. Celebes, on its north coast, is in general high, bold land. Its extreme point is called Cape Coffin, and the whole of the islands that stretch from it to Menado bay are sometimes called Banca islands.—(*Horsburgh.*) The tongue of land in the north of Celebes, known administratively under the name of the Dutch Residency of Menado, comprehends all the northern extent of the island, from the bay of Palos in the west, to the cape of Taliabo in the east, and comprises the great bay or arm of the sea of Gunong-tello, which stretches in a westerly direction between the two peninsulas. The Dutch Residency of Menado includes under its jurisdiction the whole federative states of Minahassa; the small kingdom of the northern coast; the very extensive districts in the west part of the peninsula, where Government exercise sway, besides the islands of Sangir and Talaut to the north, as well as the lesser island of the west coast and the large gulf of Tomini.

The population is composed of native christians, Malays, and Chinese. In 1840 there were reckoned in Minahassa :—

Natives.	78,700	The districts of Gorontalo.	50,000
Christians.	5,687	Sangir & Talaut islands.	40,000
Malays.	2,875		
Chinese.	510		
Free & Slaves.	500		
		Total...	178,272

Without taking into account the number of the Alfoura population of the interior, which cannot be very considerable, seeing that the elevated and woody parts of Kayeli, Toradja and To-meiku appear to be thinly peopled.

The Minahassa confederation in the north of Celebes counts 286 villages; the principal districts are Tondano, Langoang, Kakes, Temehon, Sonder, Kawakkoang, Tompasse, Amurang, Belang and Kema. They are all under the direct authority of the Dutch Government; the Resident and three other European civil employes, assisted by an indeterminate number of native functionaries, administer the Government. The resident is under the orders of the governor of the Moluccas, the head-quarters of which is Amboyna.

Sangir, and the numerous islands of this group occupy a superficies of 13 square leagues; the Talaut and the Meangis islands united are 18 square leagues; these archipelagos, formerly subject to the authority of the Sultans of Ternate, now make part of the Residency of Menado.

Several extinct volcanoes, and some still in full action, are found in the Sangir group; the devastations which they commit from time to time have often been fatal to the inhabitants. The eruption of Duwana, in 1808, completely annihilated the village of Tagalando, destroyed all the surrounding forests, and suddenly deprived the inhabitants of all means of livelihood, by the destruction of their fields. The Gunong-api causes numerous ravages in the island of Sjauw; its peak, 6000 feet above the level of the sea, forms the culminating point of this group. Gunong-abu covers with its base all the northern part of Sangir-besar: this volcano has not been active since 1812, when the torrents of lava destroyed the extensive forests of cocoanut trees with which this part of the island was covered, and caused the death of many of the inhabitants. These islands furnish more than twenty-five kinds of wood suited for building and furniture. Two harbours, sheltered from all winds, exist in the larger Sangir, one in the Bay of Taruna, the other, called Midelu, on the eastern side.—(*Journ. Ind. Arch. for Dec.* 1850, *page* 764.)

It will be seen from the above that Celebes consists of a small irregular central area, with four long peninsulas. The two on the south are separated by the Gulf of Boni; in the S. W. peninsula, two languages are spoken, the "Mangkasa" or "Mangkasara," and (of which word the Netherland capital Macassar is only a corruption of the Dutch), and the "Wugi" or "Bugi" which originally was more particularly limited to the coast of the Gulf of Boni. North of Macassar, in the most western part of the island, is another people, the "Mandhar," who speak a third language. On the island of Buton, which may be regarded as a part of the peninsula east of the gulf of Boni, a fourth tongue is spoken. In the northern peninsula are the people speaking the "Gorontalo" and the "Menado" languages (*Bikmore*, 97). Minahassa is in the northern extremity of Celebes. In the interior are a people whom the coast tribes call Turaju, who are said to be cannibals, and head hunters. (*Bikmore.*) This was stated many years ago by Dr. Crawfurd, who says (Vol. i. p. 243) "some of the savages of Borneo destroy their prisoners and devour their flesh. One nation of Sumatra acquainted with the art of writing and possessed of books, are well known to be cannibals. Among other tribes, the skulls of enemies are held as trophies round their habitations. Among the people of Celebes, when an enemy falls wounded on some occasions, they actually devour his heart, and there is hardly a warrior of note who at some time or other has not partaken of the horrid repast. Crawfurd had seen several who had done so, and one person told him it did not differ in taste from the offal of a goat or buffalo." Macassar is the most notorious place in the Eastern Archipelago for the Bugi people to run amok. On the average one or two occur in the month. It is in fact the national mode of committing suicide, amongst the natives of Celebes, and is therefore the fashionable mode of escaping difficulties. Ten or twenty persons are some times killed and wounded at one of the amok. Stabbing and killing at all he meets, the a-mok runner is at last overpowered and dies in all the excitement of battle. It is a delirious intoxication, a temporary madness, absorbing every thought and action. (*Wallace* i. 174.) Macassar men is a common name of the Bugi race. The Macassar people were taught mahomedanism in the early part of the 16th century, but the Portuguese arrived A. D. 1525, and they embraced Christianity. (*Bikmore* 99.) The Bugi are now the great navigators and traders of the Eastern Archipelago. In the beginning of the western monsoon, they go in great numbers to the Arru islands, which is the principal rendezvous for the people of Ceram, Goram, the Ki islands, Tenimber, Baba, and the adjacent coast of New Guinea, a distance from Macassar of upwards of 1,000 miles. They carry English calicoes, cotton goods of their own manufacture, Chinese gongs, and arrack, and the return cargoes are tortoise-shell, mother of pearl shell, pearls, birds of paradise, and tripang, the Malay term for all the kinds of Holothuriæ or Sea Cucumbers. Of tripang alone, about 14,000 piculs are yearly shipped from Macassar, of a value of 600,000 dollars, or £150,000. It is estimated that the annual value of goods carried by the Bugi to the Arru islands from Macassar alone is 80,000 dollars, or 200,000 guilders, and of those taken to the Arru group from other places 20,000 dollars, or 50,000 guilders. (*Bikmore*, 101.)

The Bugi are the most enterprising race of the Eastern Archipelago. Although they bear some personal resemblance to the Malays, arising probably from a common origin, in every quality but courage they are essentially different. Exposed to the same temptations, and most skilful and adventurous navigators, they have never adopted the occupation of piracy, but abhor and resist it, and defend themselves against the Malay prahus with the most heroic and desperate valour whenever they are attacked, proceeding, if overpowered, to blow up their vessels rather than submit. The poorest of these hardy islanders is as impatient of a blow as a European gentleman; and it is permitted to any one to avenge an affront by the death of the person who offers it. A more than Spartan training is bestowed on children. The males at the age of five or six are removed from their parents, lest they should be made effeminate by indulgence, and they are not restored to their family until they are of an age to marry. They are the Phœnicians of the Indian Archipelago, and there is not a coast from the northern shores of the Australian continent to the Malay peninsula where their ships are not habitually seen. These adventurers leave their country in the beginning of the eastern monsoon on a trading voyage, and proceed westward until they reach Singapore. With vessels of peculiar build, of from forty to fifty tons burthen, they conduct almost the whole carrying trade of the Archipelago. They own at least 1,000 ships, the outward cargoes consisting of cotton cloths, gold dust, edible bird's nests, tortoise shell, trepang or sea slugs for Chinese epicures, scented woods, coffee, and rice; and in spite of the jealous and restrictive policy of the Dutch, they have greatly contributed to diffuse British manufactures throughout the islands of the Eastern Seas. (*Quarterly Review, No.* 222, *p.* 502.)

The population of Celebes was estimated by Mr. Crawfurd at 900,000: if it were as well peopled as Java, it would number 14,000,000 inhabitants.—(*Quarterly Review, No.* 222, *p.* 503.) But at present, according to St. John (i. p. 351), it does not exceed 1,104,000 people. Its cotton tape, silk tape and embroidered tape, was exhibited at the Exhibition of 1862. It produces Teak. The people of Minahassa, in the north-east part of Celebes, differ much from all the other people in the Archipelago. They are of a light brown or yellow tint, often approaching the fairness of a European, of a rather short stature, stout and well made, of an open and pleasing countenance, but disfigured, as age advances, with projecting cheek bones, and with the usual long, straight, jet black hair of the Malays. The coast people, where there has been intermixture, are coarse; but in inland villages, where the race is pure, both men and women are remarkably handsome. They are quiet and gentle, submissive to authority, and are easily induced to learn and adopt the habits of civilized life; they seem capable of acquiring a considerable amount of intellectual education, and they are clever mechanics. Up to the early part of the 19th century, up to 1822, this people lived in tribes each under its own chief, always at war with each other, speaking different languages, unintelligible to each other. They built their houses on lofty posts, to protect themselves, they were head-hunters like the Dyak of Borneo, and were said to be cannibals. Human skulls were the great ornaments of a chief's house, and when a chief died, two skulls of an enemy, or failing that, of his slaves, were placed at his grave, and they worshipped deities in the mountain, the torrent, the lake, and certain trees and birds, and wore only a strip of bark. In 1822, the introduction of coffee planting and a settled Government altered all that, and the people, though still speaking different tongues, are now the best clothed, best housed, best fed and best educated in the Archipelago. Much of this has been due to the tractable nature of this people, for near Menado is a race called Bantek, strong, but intractable, who have hitherto resisted all efforts to improve them. There are some of the less civilized tribes which have semi-Papuan features and hair; while in some villages, the true Celebes or Bugi physiognomy prevails. The plateau of Tondano is chiefly inhabited by people nearly as white as the Chinese, and with very pleasing semi-European features. The people of Siau and Sanguir much resemble these, and Mr. Wallace believes them probably to be immigrants from some of the islands of North Polynesia. The Papuan type will represent the remnant of the aborigines. The languages contain a Celebes Malay element, and a Papuan element, along with some radical peculiarities derived from the Siau and Sanguir islands further north, and therefore probably derived from the Philippine Islands.

The natural history of Celebes has been much investigated. M. Forsten, a Dutch Naturalist, spent two years in the north part about 1840. The L'Astrolable, French ship of discovery, touched there, and procured specimens. The Dutch naturalists Rosenberg and Bernstein also collected there and in the Sula islands, and Mr. A. R. Wallace and Mr. Allen, his assistant, both collected there. It has also been described by Dr. Crawfurd, Mr. St. John, and Professor Bikmore. According to Professor Bikmore (378), gold is found in great quantities in Celebes. It occurs over all the northern peninsula from the Minahassa south to the isthmus of Palas. Of the birds of Celebes, 191 species are known, of which 128 are land birds. Livistonia rotundifolia is supposed by Mr. Wallace to be the fan-palm, of the leaf of which the people of Celebes make water buckets and baskets. According to Mr. Wallace, Celebes has the Carpophaga luctuosa, a fine cream-coloured pigeon, also the Coracias Temminckii. Phænicophaus callirhyncus is one of the finest known cuckows. Its bill is of a brilliant yellow red and black. Ornithoptera remus, the largest and most beautiful of all the butterflies, is found in Celebes. (*Wallace*, p. 284.)

Accipiter trinotatus, a beautiful hawk with elegant rows of large round white spots on the tail. Strix Rosenbergii and S. Javanica, the latter in all the islands up to Lombok, Phlegænas tristigmata, the ground dove of Celebes.

The Maleo, or Megacephalon rubripes, deposits its eggs in the loose sand of the sea beach, in holes just above high-water mark ; the female lays one large egg, which she covers over and returns to the forest ; but many birds lay in the same hole. A dozen eggs are often found together. One egg fills an ordinary teacup, from 4 to 4½ inches long, and 2¼ to 2½ wide. They are very good to eat, and much sought after. The hen-bird takes no further care of the eggs, which the young bird breaks through about the 13th day, and runs at once to the forest. Each hen lays six or eight eggs in a season of two or three months. Cittura cyanotes, the forest king-fisher. Meropogon Forsteni. Carpophaga Forsteni a fruit pigeon of North Celebes. Buceros cassidix, the great hornbill of Celebes. Trichoglossus ornatus, a beautiful brush-tongued paroquet. Corvus advena, a rare black and white crow. Anoa depressicornis, (Sapi utan, *Malay*) the wild cow of Celebes. It is smaller than other wild cattle. It is found in the mountains. Cynopithecus nigrescens, the black baboon monkey. Tachyris zarinda, a rare butterfly, with cinnabar red wings. Idea tondana, a semi-transparent butterfly of Celebes. Papilio androcles, one of the largest and rarest of swallow-tailed butterflies. Cicindela heros, and C. gloriosa also occur, the latter of a rich velvetty green colour.—*Quarterly Review, No.* 222, *p.* 503. *Professor Bikmore's Travels, pp.* 101 *to* 378. *Crawfurd's Dictionary of the Archipelago, Vol.* i., *p.* 243. *St. John's Indian Archipelago, Vol.* i., *p.* 351. *Wallace's Malay Archipelago, Vol.* i., *p.* 175. *Horsburgh. Temminck. Coup d' Œil sur les Possessions Neerlandaises* iii. 5, quoted in *Journ. Indian Archipelago for Dec.* 1850, *p.* 764. See Tulour or Salibaboo Islands. India, pp. 320, 352, and 353. Serangani Islands.

CELERY, Eng. Apium graveolens.

Kurufs. Ar.

Cultivated by the Europeans all over India. The seed is usually sown at the commencement of the rains, and transplanted into trenches, and blanched by earthing up. The root only of this is eaten : it forms rather a large white bulb, nearly the size of a parsnip, and has an exceedingly fine flavour. Kurufs, *Arab*, are the seeds of Apium graveolens, used in Indian medicine. Celeriac is a variety of celery, and managed similarly. Celeriac root is used for stews, rather than eaten raw.—*Riddell. Jaffrey. O'Shaughnessy.*

CELEBACY. The Sherif families of Mecca affect marrying female slaves, thereby showing the intense pride which finds no Arab noble enough for them. Others take to wife Bedouin girls ; their blood, therefore, is by no means pure. The worst feature of their system is the forced celibacy of their daughters : they are never married into any but Sherif families ; consequently they often die in spinsterhood. The effects of this custom are most pernicious, for though celibacy exists in the East, it is by no means synonymous with chastity. Here it springs from a morbid sense of honour, and arose, it is popularly said, from an affront taken by a Sherif against his daughter's husband. But all Arabs condemn the practice. *Burton's Pilgrimage to Meccah. Vol. III., p.* 33.

CELOSIA. A genus of plants of the order Amarantaceæ, of which Roxburgh (i, 678, 9) mentions C. argentea, C. ceruna, C. comosa, and C. cristata. Their names will suffice.

CELOSIA ALBIDA. Lin. *Riddell.*

Pannay keeray, Tam.
Ghoorugoo koora, Tel.
Booroondie, Sans.—*Ainslie's Mat. Med. p.* 255.

CELOSIA ARGENTEA. Lin. *Rheede. Roxb. W. Ic.*

White Cockscomb,	Eng.	Gurugu,	Tel.
Sufaid Murgh-kes,	Hind.	Panche Chettu,	„
Sarwari,	„		

Double variety cultivated. The single variety is very common in the rains in the cultivated fields, both white and pink, and cattle eat the plants, especially buffaloes.—*Genl. Med. Top. p.* 185.

CELOSIA ASIATICA.

Indian Celosia.	Eng.	Kookspura,	Hind.

A common weed in gardens.—*Genl. Med. Top. p.* 200.

CELOSIA CERUNA. Drooping Cock's-comb. Cultivated as a flower.—*Genl. Med. Top, p.* 185.

CELOSIA CRISTATA. Linn. Roxb.

Var. a. rubra.

Kyet mouk,	Burm.	Erra-kodi juttu tota kura,	Tel.
Crested cockscomb,	Eng.	Kodi juttu tota kura,	„
Pila Murgh-kes,	Hind.		
Lal Murghkes	„		

Both white and yellow varieties are cultivated in gardens. The Hindi, Telugu and Burman names signify cock's comb like the English.—*Mason Genl. Med. Top, p.* 185.

CELOSIA NODIFLORA.

Allmaunia nodiflora. *R. Br.*

Comatty keeray,	Tam.	Kullianic, Sans —*Ainslie, p.* 253. *Agri.*	
Pendli pedda koora,	Tel.		

CELSIA. A genus of ornamental plants, growing from two to six feet high, colours yellow and orange. C. Coromandelina is a native of India.

CELT. The name of a branch of the Indo-Germanic family who occupied the northern shores of Europe. They are part of the great Asiatic European stock.

CELT, implements of agriculture and for domestic purposes, used by ancient pre-historic races of the world. They have been discovered in Europe and India. Mr. Allan Hume, C.B., discovered many in Hindostan, and Colonel Meadows Taylor others at Lingsoogoor in the Raichore Doab. They are of flint or chalcedony. Mr. W. Theobold found Celts or stone weapons in the country extending upwards of 200 miles east of the Toris river, and accumulated at Karo in Kirwee. They seem to be almost identical with those found in Europe. Belonging to an aboriginal race of which they are now the only relics, the explanation of their occurring in heaps under peepul trees and in temples, is probably some superstition which induced men of old time to convey them to the shrines where they are now so abundant. Very few of the Celts offer any evidence of their ever having been fixed in handles, and where such has been the case, it was probably by a race of far more recent date than the original fabricators, for it is difficult to conceive a form less adapted for such a purpose than the typical Celt. The natives of Kirwee have adorned some of the Celts with a daub of red paint as Mahadeo. Major Haughton sent some spears of the stone utensils now used by the Andamanese for purposes of comparison, but most of the stone chips seem to be arrow heads for shooting fish, and intended to be used with the fingers in dividing fish and flesh.

CELTIC APOLLO. Near the town of Avaranches, on the coast of Normandy, is a rock called Mont St. Michel, in ancient times sacred to the Gallic or Celtic Apollo, or Belenus; a name which the author from whom we quote observes, "certainly came from the East, and proves that the littoral provinces of Gaul were visited by the Phœnicians." " A college of Druidical priestesses was established there, who sold to seafaring men certain arrows endowed with the peculiar virtue of allaying storms if shot into the waves by a young mariner. Upon the vessel arriving safe, the young archer was sent by the crew to offer thanks and rewards to the priestesses. His presents were accepted in the most graceful manner; and at his departure, the fair priestesses, who had received his embraces, presented to him a number of shells, which afterwards he never failed to use in adorning his person." When the early Christian warrior consecrated this mound to his protector St. Michel, its name was changed from *Mons Jovis* (being dedicated to Jupiter), to *Tumba*, supposed from *tumulus*, a mound; but as the Saxons and Celts placed pillars on all these mounts, dedicated to the Sun god Belenus, Bal, or Apollo, it is not unlikely that *Tumba* is from the Sanscrit *t'humba*, or *st' humba*, 'a pillar.' *Tod's Rajasthan, Vol. I., p.* 525. *Tour through France.*

CELTIS. A genus of plants belonging to the Ulmaceæ. C. australis and C. Caucasia, are the "Batkar," *Hind.* of Kaghan. C. dysodoxylon, Thw.; the Gonnadugas of the Singhalese. A small tree, grows up to 5,000 feet in the Central Province.—*Cleghorn's Punjab Report. Thw. En. Pl. Zeyl., p.* 267.

CELTIS ERIOCARPA.

Nettle tree	Eng.	Koo	Punjab.

This is found in the Sutlej valley between Rampur and Sungnam, at an elevation of 6,000 feet. Bark used for making shoes.—*Cleghorn Punjab Report, p.* 67.

CELTIS CAUCASIA. Willde.

Batkar	Panj.	Tago	Panj.
Brimdu	„	Bigui	„
Brumj	„	Bingu	„
Brimla	„	Kharg	„
Takbum	„	Wattaman	

Fruit.

Kangal Mirch	HIND.	Indarba	HIND.

This fine tree, says Dr. Stewart, is common, wild, from 2,500 to 8,500 feet in the Punjab, Himalaya, and occurs in Trans-Indus, down to 1,500 feet, and Dr. Griffith says it is cultivated in Affghanistan. It attains 16½ feet in girth; but trees of seven or eight feet are not uncommon. Its timber is white, light, soft, weak and subject to the attacks of insects. It is chiefly used for zemindar's work, charcoal and fuel. Dr. Bellew mentions that in the Peshawur valley it is often made into charms to keep off the evil eye from man and beast, and Dr. Cleghorn states that its bark is used for sandals.—*J. L. Stewart, M.D*, *p.* 209.

CELTIS NEPALENSIS PLANCH.

Batkar	*T. J. Punjab.*	Tagho	*T. J. Punjab.*

This is much more rare than C. Caucasia is. Dr. Stewart found it in parts of the Jhelum basin and Trans-Indus at about 2,500 to 3,500 feet. The Pathans are said to use its tough wood for churn-sticks.—*Dr. J. L. Stewart, M. D.*

CELTIS ORIENTALIS. LINN.

Sponia orientalis. COMMERS.

Tubunna	BENG.	Karak	PANJ.
Chakan	,,	Gadda Nelli	TEL.
Indian Nettle tree	ENG.	Uru Kanija nalika	,,
Mallam toddali	MALEAL.		

A tree which is pretty common all over India, and in Kullu planted in avenues. Dr. Buchanan Hamilton says the under bark of this tree, like that of the West India kind, consisting of numerous reticulated fibres, forms a kind of natural cloth, used by the Garrow for covering their nakedness. ('Lin. Trans.,' xvii, p. 209). He also describes it in his report on Assam, as a kind of rug worn by the Garrows in the cold weather, and serving them as a blanket by night. Captain Reynolds sent a specimen of it to the Agri-Hortic. Society; the Garrow make several such cloths of different colours from various barks. The Garrow who come to the plains, generally buy some small ends of cloths from the Bengalees, to attend the *hauts* (fairs) in, not as clothing to protect them from wind and weather."—*Royle Fib. Pl.* 317. *Cleghorn. Kullu*, 80.

CELTIS WIGHTII. WIGHT. IC.

Not uncommon in the hot drier parts of Ceylon.—*Th. En. pl. Zeyl.*, *p.* 268

CEMENTS. At the Madras Exhibition of 1855, there were shown Lime, Concrete, Septariæ, Dolomite, Magnesite, Gypsum and other substances used in manufacturing cements, and there is an abundant supply of minerals of this class all over Southern India. The shell lime of Sooloorpett is well known it is a pure carbonate of lime. The Kunkur or Nodular lime stones are more durable though not so white. The Septariæ or Parker's cement stones, occur in Southern India, though the beds are not extensive: they accompany the strata of blue and white Potters' clay and kaolin that are so common in this Presidency. The best hydraulic septariæ occur at Awady near Madras, Bangalore and Chingleput. A very fine natural pydraulic cement occurs on the banks of the Godavery and has been extensively used in the construction of the Godavery and Kistna Anicuts. A very good pydraulic limestone occurs along with the blue slate of Cuddapah—and the Dolomites of the Ceded Districts and the Northern Circars make good cements. The Magnesite of Salem, Bangalore, and Vizianagram, would probably improve the qualities of some of the other limestones in certain proportions, as it acquires great hardness of surface but is deficient in adhesiveness. Numerous experiments have been tried with this mineral which certainly possesses some good hydraulic properties, but has disappointed the expectations at first formed of its usefulness.

The ordinary Indian cement is chunam in its various forms; the only building stones which differ materially from those of the rest of the world are laterite, concrete and kunkur. Kunkur is a limestone mostly nodular—always fresh water and recent,—in most cases in the act of being formed under our eyes. It is sometimes found in thick stratified beds like the travertine near Rome, and seems in this case to have been formed by calcareous springs: more generally it is met with in clay or alluvial soil, in the shape of small pieces from the size of peas or filberts to that of the hand. In the blue clay which stretches along the Indian shores, it is found in vast abundance generally assuming the most fantastic forms —indeed it abounds in every rice-field and open soil all over the country. The more recent varieties seem to be formed by the agency of the rains: when the earth abounds with vegetation, the tepid waters are charged with fixed air and dissolve the lime prevailing in the soil everywhere around,—the mineral being again thrown down as the advancing season dispels the excess of gas. It in this state absorbs the clayey matter around and cements it into kunkur. This is collected by the lime-burner, placed with firewood in small-sized conical kilns, and burnt in the usual way. It contains 72 of carbonate of lime, 15 of sand, and 11 of clay and oxide of iron. Mixed with half its weight of river sand it makes an excellent mortar, burnt in pieces of a cubic inch or so in size, and then powdered without slaking, it forms a first rate water cement, setting in a few minutes, and becoming as hard as stone. At Poona the finer varieties of kunkur are burnt with charcoal all throughout the city, in neat pigmy looking kilns 2½ feet high and about as much in diameter at the base. These hold about a cubic foot of material, or about 36lbs. of charcoal and kunkur in equal parts. When burnt, it is slaked and then made up into bricks, which are sold in the bazaar for the purpose of whitewashing.

The finer kinds of lime and cement on the coast are made from shells. A piece of ground about ten feet square is laid down even and floored over with clay: an upright pole is placed at each end of this, and a sheet stretched out with back stays spread between the poles, which are steadied with strings. On the floor a bed of shells and rice-chaff alternately, about ten inches thick and eight feet by six, is spread neatly out. Some firewood is placed along the windward side of this, and when the sea breeze sets in the wood is kindled. As the heat extends to leeward, and the shells become calcined, the limeburners draw off the fore parts of them with a stick, and so soon as they have cooled on the floor sufficiently to allow them to be handled, they are placed in a scoop basket and the dirt and epidermis winnowed from them. The shells, now white and pearly, are next thrown into a small sized vat partially filled with water: here they for some time boil from the effects of the heat and slaking. The whole in a short time settles down into a fine semi fluid mass, which is taken out and slightly dried, and is now ready for use. A good hydraulic cement is formed of the blue clay of Madras, and shell lime.

Bitumen or asphalte seems to have been employed in Babylon. The works of salt and bitumen even yet around Hit, give a most singular appearance to the country, and the most learned geographers are of opinion that the town of Hit is the Is of Herodotus, whence the Babylonians drew the bitumen in which they set their bricks.

All over the East they make an exceedingly hard cement, which they use as mortar, and to form the lining of baths and reservoirs. It is made with equal parts of wood ashes, thoroughly sifted, and powdered lime; and by others with two parts of lime to one of ashes, but in either case these materials are well mixed. Water is then poured upon them, and they are well kneaded, after which the mass is beaten for six days by two men with large sticks, uninterruptedly, except at night: when it becomes a little solid on one side, it is turned over and beaten on the other, care being taken to moisten it occasionally lest it should become too dry. When thus well mixed, it is folded and turned, and beaten again and again till the sixth day, when it is ready for use. In building, this cement is laid between the bricks, which are tightly pressed upon each other; for lining it is laid upon the surface that is to be covered, and spread with a flat and polished flint, for it must not be touched with the hand, as it would burn. Three layers are put on successively, and the third is washed over with oil, but of what kind is immaterial; when it is dry, nothing can equal the beauty and solidity of this cement, which is called "saroodj." There is another description called "saroodj maghrebi," but it is not so much used: this is composed of one-third of hot lime, one of sifted sand, and one of pounded brick.—*Ferrier His. of Afghan. p.* 296-9. *Skinner's Overland Journey, Vol. II., p.* 113. *Dr. Buist in Bombay Times.*

CENOBITÆ, a genus of hermit shells.

CENOBITA RUGOSA. See Paguridæ.

CENSUS, a rough census of the population called "Khaneh-Shumari," was always made under the native princes. The dislike to a census in the east appears to arise from the necessity of mentioning their women, also a vague fear that Government is plotting some mischief against them, and a superstitious aversion to assist in rousing Divine wrath by what they consider such a display of pride as that of numbering the people.—*Burton's Sindh, p.* 381-382. See British India, Caste.

CENTAUREA. A genus of ornamental flowering plants commonly to be seen in India. The flowers are fragrant and of different shades of colour, purple, blue, yellow, white, red, brown, &c.

CENTAUREA ATROPURPUREA. The sweet Sultan.

CENTAUREA BEHEN. *Linn.*

Behen-abiad,	Arab.	Suffaid Behmen,	By.
Saw-leaved centaury,	Eng.		

CENTAUREA MOSCHATA. Musk Centaury. *Hind.* Shah-pusund. Cultivated as a flower.—*Gen. Med. Top. p.* 206.

CENTENO. Sp. Rye.

CENTIPEDES, are very common in India. The most frequent kinds are two or three inches long, but some are double that size; they are generally supposed to be poisonous, but such is not the case.

CENTRAL ASIA is a term used differently by geographers, ethnologists, and politicians, but is usually applied to the region intervening between Russia in Asia, and British India, and lying to the west of Chinese Tartary. Its western boundary is the Caspian Sea and the river Ural. On the east, is the lofty table-land of the Bolor, (the mountains which form the western boundary of Chinese Turkestan and Dzungaria), and the river Irtisch; and the northern boundary is western

Siberia, and it has Afghanistan on the south east. The northern half of Central Asia consists of the Kirghiz desert, which is mountainous and rugged on the east, and full of saline steppes on the west. In the midst of the southern half lies the sea of Aral, on the western side of which, up to the Caspian Sea on the west, there stretches a broad tract of desert. But, on the eastern side of Central Asia, is a fertile tract, watered by the great rivers the Jaxartes and the Oxus, and it is in this fertile tract that the conquests of Russia, were made between 1864 and 1868. After long years spent in fortifying posts, in 1864. Russia made a sudden irruption into the upper valley of the Jaxartes, and in that year took three forts of Kokand, viz., Aoulietta, Turkestan and Chemkend. In the spring of 1865, the chief of Kokand fell in battle, and in June 1865, the city of Tashkend was stormed. On the 20th May 1866, they fought and won the battle of Irdjar, against the Bokhariotes, and later in the year captured the forts of Oratepe and Juzak, within 40 miles of Samarcand. On the 13th May 1868, a great battle was fought under the walls of Samarcand, and the city surrendered, and later in the year Bokhara yielded. (*Fortnightly Review, July* 1868.) The whole country of Central Asia between India and Tartary is one broad mountain range, the Himalaya forming the southern crest, and the Kuen-luen the northern. The interior has some lovely valleys like Kashmir, but it is more usually broken into rocky ravines, through which the affluents of the Indus force their way towards the plains; or else stretches away in those vast treeless uplands, which are one of the chief characteristics of the range through its whole extent. The direction of this range is from east to west, trending slightly to the north, while the parallel chain that bounds Siberia to the south, and the outer crest of which is the Thian Shan, trends somewhat to the south; so that at a short distance to the west of Yarkand and Kashgar, the great interior depression of Chinese Tartary terminates, and the boundary ranges coalesce in the elevated tableland of Pamir. The ascent from Yarkand and Kashgar, westward to the table-land of Pamir, is almost imperceptible: and when that lofty position is gained, where the average elevation is probably as much as 15,000 feet above the sea, a vast open plain is seen, which stretches from the valley of the Jaxartes in one direction, across the head streams of the Oxus, to the top of the Kashgar or Chitral Valley in another. This plateau may be 700 or 800 miles in extent. It is studded throughout with lakes, and from it descend four great river systems. The Narym, which is the main stream of the Jaxartes, runs through a long, luxuriant valley, between the culminating ridge and outer range of the Thian Shan, and drains all the northern range of the plateau. The Oxus, rising in the Siri Kul or Yellow lake of Pamir, at least 300 miles to the south of the Jaxartes, receives from its right bank a multitude of small streams, which run to the south through rugged valleys, on the south-western face of the Pamir uplands. The western face of Pamir between the Jaxartes and the Oxus, is far more precipitous than the eastern. Ridges run out as far as Samarcand and Karshi and the streams from the upland which twine amongst these ridges form the Zarafshan and Karshi part of the water system of the Oxus, though before they reach that river they are entirely consumed in irrigation.

The water system of the Indus is formed on the south-eastern extremity of Pamir, where the table land is lost in the rocky summits of Muz Tagh, and a number of streams drain off to the southward, forming two subsidiary Indus systems. A culminating ridge, Pusht-i-khar or Asses Back, which runs out from the south east corners of Pamir, is the true water shed between Thibet and Kabul, the streams flowing to the southward being separated by the shoulder which joins the Hindu Kush, from the streams descending through Vakkam and Baddakhshan to the Oxus, and forming the Kabul river, which falls into the Indus at Attock, while those that flow to the south-east and are divided by the Muz Tagh range from Tartary, descend through a series of rocky valleys and precipitous gorges into the Upper Indus at Little Thibet.

From the eastern face of the Pamir again, which slopes off very gradually into the plains of Tartary, is supplied a fourth water system, in the form of a series of small streams, which passing by Yarkhand and Kashgar are ultimately lost in the sandy desert, or in some cases reach the central lake of Lob Nur.

Central Asia has a hardy peasantry, dwelling in the mountain region with its vast upland downs, well suited for summer pasture, partly descendants of the original inhabitants, and in part of the many migratory races who have swept through the country. At the foot of the mountains, in the tracts of surpassing fertility, Turk, Bokhariot, Kalmuck, Kirghiz, Oigur, Manchu, Chinese, Armenian and Indians dwell in the well watered plains. Beyond these, in every direction, is the pathless desert, which has been tenanted by pastoral nomads ever since the earth was peopled. From the Vendidad opening chapters there seems in ancient times to have been a great kingdom in Central Asia. An eastern branch, with its primæval seats on the Oxus. The Iranian people, who were settled between the Oxus and the Jaxartes, as early as the time of the Judges of Israel, still held their ground in the country, under the names of Tat, Tajik, Sert, Galsha and Parsiwan; a primitive and not impure Iranian population might be found in almost every district from the Indus to the Jaxartes, and throughout the valleys of the Oxus.

The Paropamisan chain, which bounds the Kohistan on the west, extends three hundred and fifty miles from east to west, and two hundred from north to south. The whole of this space is a maze of mountains, and though it affords a habitation to the Eimak and Hazarah, it is so difficult of access, and so little frequented, that no precise accounts of its geography are to be obtained. It is certain, however, that the range of Hindoo Coosh is there no longer so lofty as to be conspicuous among the mountains by which it is surrounded, and that no continued line of perpetual snow can any more be traced. The eastern half of this elevated region is inhabited by the Hazarah, and is cold, rugged, and barren; the level spots are little cultivated, and the hills are naked and abrupt. The western part, which belongs to the Eimak, though it has wider valleys and is better cultivated, is still a wild and poor country. The northern face of these mountains has a sudden descent into the province of Balkh: their acclivity is less on their other extremities, except perhaps on the west or south-west. On the north-west they seem to sink gradually into the plain which borders on the desert. The slope of the whole tract is towards the west. To the north of this, extending eastwardly and to the west, are the elevated plains of Tartary, the Asiatic dominions of Russia, Chinese Tartary, and China, and the regions occupied by several Turkoman nations. To the south is India with its two peninsulas and its archipelagos on the east, with the dominions of Persia and Turkey in Asia and Asia Minor, and the peninsula of Arabia on the west. The Caspian Sea, inland sea with Russian territory on the north and west, and Persia on the south. According to Strabo (*lib.* xi.), all the tribes east of the Caspian were called Scythic. The Dahæ were next the sea: the Massa-getæ and Sacæ more eastward, but every tribe had a particular name. All were nomadic; but, of these nomads, the best known are the Asi, the Pasiani, Tachari, Saccarandi, who took Bactria from the Greeks. The Sacæ made irruptions into Asia, similar to those of the Cimmerians, and possessed themselves of Bactria and the best district of Armenia called after them Saca-senæ. Of the first migrations into India of the Indu Scythic Gete, Takshak, and Asi, that of Sehesnag from Sehesnagdes (Takshac from Techaristhan) six centuries before Christ, is the first noticed by the Poorana. About the same period a grand irruption of the same races conquered Asia Minor, and eventually Scandinarva, and not long after the Asi and Tachari overturned the Greek Kingdom of Bactria. The Romans felt the power of the Asi, the Catti and Cimbri from the Baltic shore. Colonel Tod (*Vol.* I. *p.* 49.) supposes the Asi and Tachari to be Aswa and Takshac or Toorshka races of the Poorans of Sacadwipa. The Dahæ to be the Dahya, now extinct, one of the 36 Royal Rajput tribes, and he supposes them to be the descendants of Baldeva and Yudishtra, returned under different appellations. The country on the east is still occupied by the Turkoman race.

The geography of the Vedic hymns confirms the theory that the Arian race migrated from Central Asia about seventeen centuries before Christ, entered India by the north west, dwelt during the earliest Vedic portion in the Punjab, and migrated or fought their way into Hindustan and Central India during the five centuries that succeeded. From the frequent mention of the Suraswati and other rivers, we learn that the Punjab was at one time the locality of the Vedic Arians. The fathers of the Arians originally inhabited Iran Proper, the Land of Pleasantness, and they left it only in consequence of a convulsion of nature, by which a great alteration in the climate was caused. When the climate was altered by some vast disturbance of nature, the Arians emigrated. They did not, however, follow the course of the Oxus, or they would have come in the first instance to Bactria, and not to Sogd. Their course, therefore, was more northerly. Its present climate is precisely what the record describes it to have been when the changes produced by the above commotion took place. It has only two months of warm weather. In the course of the Arians, after their expulsion from the primeval country between Sogdiana and the Sutlej, they formed, by the conquest of fourteen countries, as many kingdoms in the whole of the eastern part of Central Asia and India Proper, in the country of the Indus and its confluence. In the intervening countries, they passed amongst the Turanians (Scythians and Turcomans), and there is evidence that the inhabitants whom they found in India were likewise Turanians. The main direction of these travellers was southerly, and on the southern bank of the Caspian is a group the nucleus of the Arian Media. Amongst the Arian hindu, the sacrifice of a horse, the Aswamed'ha, seems to have been practised in their religious rites. There are two hymns in the Rig Veda describing the rite, and which leave no doubt, that in the early religion of the race, this sacrifice, as a burnt offering to the gods, was had recourse to. It was even then, however, falling into disuse, and was existing as a relic of an ante vedic period, imported from some foreign region, possibly from Scythia, where animal victims, and especially horses, were commonly sacrificed. And in still later times, the Aswamed'ha consisted in certain ceremonies ending in the liberation of the horse, as throughout Southern India is still practised with a bull or cow, many of which are met with in every village, freed or let loose in the name of Siva or Vishnu.

The Eimak who graze their flocks in the Parapamisus, are brave and relentless, and Affghans when travelling, whether proceeding from Balkh, Kabul, Kandahar or Herat, never enter into the mountain districts of these intrepid nomad tribes. One of the Eimak tribes is known as the Feroz Kohi after the city of that name about 63 miles from Teheran. Timur, exasperated at the depredations which they committed, transported the whole of them into the mountains lying between Persia. According to Prof. A. Vambery, the Uigur are the most ancient of the Turkish tribes, and formerly inhabited a part of Chinese Tartary, which is now occupied by a mixed population of Turk, Mongol and Kalmuck. They were the first who reduced the Turkish language to writing, borrowing the characters from the Nestorian Christians, who came to their country as early as the fourth century of our era. The manuscripts of this language, written in the characters mentioned, afford, therefore, the most ancient and valuable data in investigating the history of Central Asia—nay of the whole Turkish race. But these monuments are of great scarcity; he believes he has collected all that has been discovered of the Uigur language, though the Uigur had a literature, and were very fond of books at a time when the Western world was involved in ignorance and barbarism. The most valuable manuscript he obtained bears date 1069, and was written in Kashgar; it treats of ethics and political subjects, and forms a kind of manual of advice to kings how to govern with justice and success. It reveals the social condition of this people, and forms the basis of the later regulations by which all Turks are governed. He believes that the Tartars of ancient time were not such barbarians as they now are. Since the year 1864, Russia has been making great progress in absorbing the kingdoms of Central Asia. In their operations, the Russians used only 2,000 and 3000 men, and never had more that 15,000 in all Turkestan. Many emeralds come from Russia, Siberia, and Central Asia to India.—*Powell Handbook. Econ. Prod. Punjab.* p. 49. *Tavernier's Travels,* p. 144. *Bunsen's Egypt.* ii., 303. *Wellsted's Travels,* ii. 323. See India, p. 308. Kelat, 492. Iran, Khiva. Kirkook;Kizzelozan. Koh, Kosi, Kuvir, Shawl goat, Turkoman, Viswamitra.

CENTRAL INDIA was the Madhya-desa, the middle region or Aryavarta, the Arya country. In a slokam in the Sanskrit work, the Amarakosha, the ancient boundaries of it are thus defined,

" Ariavartaha punia bhumi hi
Mad'hiam Vindhya Himava yoho,

i. e, the Arian country, the sacred land (lies) between the Vindhya and Himalaya," in this way indicating both the ruling race and the boundaries of the country held by them, at the time that Amaru Sinha wrote the Amarakosha. The first dynasty was the Bharata so called from the first king Bharata, and the last of the dynasty was Samvarama, who was driven westward by the Panchala of Canouj B. C. 589. The Bharata kingdom seems to have been established B. C. 2600 to B. C. 2200. Central India is a table-land of uneven surface, from 1,500 to 2,500 feet above the sea, bounded by the Aravalli mountains on the west, and those of the Vindhya on the south, supported on the east by a lower range in Bundlecund, and sloping gradually on the north-east into the basin of the Ganges. It is a diversified but fertile tract. The *Patar,* or plateau of Central India, is distinct from the Vindhya to the south and the Aravalli to the west, and its underlying rock is trap. Aravalli means the refuge of strength, and these hills have afforded protection to the most ancient sovereign race in the east or west—the ancient stock of the Suryavansa, the Heliadæ of India, or children of the sun, the Princes of Mewar, who when pressed were wont to retire to its fastnesses, only to issue again when occasion offered. The Aravalli are hills connected by lower ranges with the western extremity of the Vindhya mountains on the borders of Guzerat, and stretching up to a considerable distance beyond Ajmir, in the direction of Delhi; forming the division between the desert on the west and the central table-land. It would be more correct to say the level of the desert, for the south-eastern portion, including Jodpur, is a fertile country. Amarkantak, a great plateau, forms the watershed of the Mahanadi, Son, Tons, Johilla, and Nerbudda. The rivers, though large and full of water even half way from their mouth, are very irregular in the slopes of their beds, and are disturbed by frequent rapids, so that owing to these impediments, increased still further by the rocky character of the river beds or their banks, navigation is limited for the most part to the lower portions of their course. Many parts of Central India are covered with dense jungle, and the trees in some of these tracts approach to a size which would almost warrant their being described as forests; but with the exception of Rewah, of the forest capabilities of which state there is no accurate information, the timber to be obtained from these tracts is rarely of a valuable or even useful description. (*Ann. Ind. Adm. Vol. XI.*, p. 319). The principal states in Central India are six in number,—Gwalior, Indore, Bhopal, Dhar, Dewas, and Jowra, of which two, Bhopal and Jowra, are mahomedan, and the rest Mahratta. Besides these there is a multitude of petty states held under the immediate guarantee of the British Government, but having feudal relations with one or other of the larger states, and occasionally with more than one. The multiplicity of petty chiefs, and the peculiarity of the tenures on which they hold their states, founded as they are on the measures adopted for the pacification of the British Government in Central India and Malwa, necessitate a more minute interference in the affairs of the chiefs than it is usual or expedient to exercise in the states of Rajpootana. Under the Mahrattas, as had previously been the case under the mahomedan governors, the petty chiefs in Central India exercised but limited powers within their respective states; and on the establishment of British supremacy in these provinces, the officers of the British Government naturally assumed the position of arbiters of all differences by which the public peace could be disturbed, and of high judicial functionaries, to whom all sentences of life and death were referred, except in the case of offences committed within the jurisdiction of the larger states, which had vitality enough to preserve peace within their limits. In the case of substantive states, it is only when the offender belongs to one state and the plaintiff to another, that the representative of the British Government adjudicates the case. Jurisdiction, moreover, always rests with the Political Agents both in Central India and Rajpootana, and with respect to the larger as well as the minor states, where British subjects, Native or European, are either plaintiffs or defendants, except in cases provided for by Acts I of 1849 and VII of 1854. In 1863 the Begum of Bhopal appealed against the exercise of such powers by the Political Agent at her court as a violation of the 9th Article of the Bhopal Treaty of 1818, and claimed the right, under certain arrangements, made with the Political Agent in 1847, to try in her own courts British subjects guilty of offences within her territories, and the surrender of British subjects guilty of such offences when apprehended in British territories.—(*Treaties, Engagements, and Sunnuds. Vol.* IV, *pp.* 195, 196 & 197.)

At the close of the Pindaree war, the districts in Central India and Malwa were left in a disorganized state, the Mahratta chiefs had parcelled out amongst themselves the possessions of the Rajput chiefs and the smaller states were all subject to Sindia, Holkar or the Puar, and sometimes to all three. Many of the smaller chiefs had been driven from their possessions, and had sought refuge in the jungles and mountains where they robbed or levied Tankkhah or blackmail from the larger states. These robber chiefs were twenty-four in number at Sir J. Malcolm's time.

The feudatory territory, consisting of 71 states supervised by the Central India Agency, the head quarters of which is Indore, forms three grand divisions. The North East division comprises the native states of Bundlecund and Rewah. The Northern division consists of the Northern and Central districts of the Gwalior States. The South West division comprises the table-land known in modern times as Malwa, though far within the ancient limits of the province of that name, and the submontane territory between it and the Nerbudda, as also a considerable tract south of that river, extending to the Kandeish frontier. The first, extending from the Bengal Presidency in the east to the Gwalior State in the west, includes Rewah and 35 other states and petty chiefships. Its area is about 22,400 square miles; its population about 3,170,000 souls, and its public revenues aggregate about Rupees 63,58,000. The 2nd or Northern division extends from Bundlecund and the Saugor district, and has an area of about 19,505 square miles; its population is about 1,180,000 souls, and its public revenue about Rupees 67,65,000. The 3rd or South West division goes on westward to the Bombay Presidency, and contains the remainder of Gwalior, Holkar's states, Bhopal, Dhar, Dewas and other small states. The area of this division is about 41,700 square miles, its population about 3,320,000 souls, and its public revenues about Rs. 1,30,00,000. The states and petty chiefships in the whole territory comprised within the Central India Agency are thus classed (*Ann. Ind. Adm. Vol.* XI. *p.* 340)

	*	M homed.	Boondela.	Rajpoot.	Brahmin.	Other clas	Total.
Principal States .. .	2	1	...	1	...	...	4
Secondary do.	2	2	6	12	...	1	23
Minor and petty do. .		4	11	20	...	3	45
Total.	4	7	17	33	6*		71

* *Sic* in origin.

Their aggregate general statistics are in area about 83,600 square miles; population 7,670,000 souls, annual revenues Rs. 2,61,23,000.

The country and people vary greatly in their character. Nothing can be a greater contrast than the desolate wilds and jungles of the Western Sathpoora hills and parts of the country extending from them to the Vindhya with their savage inhabitants, the Bheel tribes, who abhor field, or, indeed, any other manual labour, and the adjoining richly cultivated plains of Malwa, extending, with occasional intervening tracts of hill and jungle, from the Mhye on the west, to Bhilsa on the east, a stretch of close on 200 miles, and from the crest of the line of the Vindhya to Mundissore and Oomutwarra, a distance of from 100 to 120 miles, and populated by a thrifty, agricultural people. This is succeeded by the more hilly and jungly land of Oomutwarra, Seronje, and Keechiwarra, with their scanty population. Northwards towards Gwalior, the country becomes more open, except on the wild border tracts of Kotah of Bundlecund till we come to the carefully cultivated plain of Gwalior, stretching for a distance of 140 miles between the Chumbul, Pahooj, and Sind rivers. A vast portion of Bundlecund is hilly and unproductive, forming the northern slope of the tableland of the Vindhya; but the scenery is strikingly grand. (*Ann. Ind. Adm., Vol.* XI., *p.* 341.)

Rewah is almost unknown to Europeans. It possesses great mineral wealth. Its plains are fertile, but the valley of the Soane to the south of the Kymore range is desolate. The people of Rewah are described as indolent and untrustworthy; and they, and the country generally, are certainly far less civilised than the neighbouring states and people of Bundlecund. Though widely different in other respects, there is one characteristic common to the Baghel of Rewah, the Boondela of Bundlecund, and the Rajpoot of Gwalior and Malwa,—a dislike to labour or service away from their homes, so that they do not generally take an active part in the business of tilling the soil, such being, as a rule, left to the inferior and servile classes.

They are throughout the territory generally regarded as the local heads of society or of the village communities to which they belong, and many of them possess much influence amongst those around them as the representatives of the ancient families of the respective clans, but the condition of the Rajpoots in the states of Central India is most miserable and pitiable.

The numerous settlements mediated under Sir J. Malcolm's authority, were principally on behalf of the hereditary claims of the heads of these classes, who having been dispossessed of their estates, and in many instances driven to the jungles, were at that period (under the designation of "Grassiahs" and "Londiahs") the local, as the Pindarees were the general, pests of the country, their whole subsistence being obtained by violence and marauding. (*Ann. Ind. Adm., Vol.* XI, *p.* 312.)

In Bundlecund and Rewah—differing in this respect from Central India—there is no decadence among the clansmen, the old families still hold the land. (*Ann. Ind. Adm., Vol.* XI, *p.* 343.)

	Ordnance.				
	G	G	Ca		Police.
Rewah and Bundlecund.	388	967	3,111	26,821	1,368
The Gwalior state.	48	480	6,000	5,000	3,000
The states of Malwa. ... Omitting the Gwalior districts.	119	761	5,279	11,305	4,124
Total ...	535	2,208	14,390	43,126	4,888

Trade is chiefly carried on in Malwa and at Gwalior. In Malwa the principal marts are Indore, Bhopal, Oojein, Mundissore, Rutlam, Dhar, Jowra, Augur, Neemuch, Shoojawulpoor, and Bhilsa. Opium chiefly is sold, except at Bhopal and Rutlam, where there is cotton. (*Ann. Ind. Adm., Vol.* XI., *p.* 347.)

The ruling races are Jats or Jit (the ancient Getæ), Rajput, Mahratta, hindu, mahomedan, Gond, Bhil and Ho. The Bheel inhabit the northern part of the chain of ghauts running inland parallel with the coast of Malabar. On one side they are bordered by the Kuli, and on another by the Gond of Gondwana. They are considered to have been aborigines of Central India; and like the Kuli, Gond, and Ramusi, are bold, daring, and predatory marauders, and occasionally mercenaries, but invariably plunderers. The northern part of the chain of ghauts, and the country at its base, is inhabited by Bheels; that part to the south of Banglan and the country at its base, as far south as Bassein, is inhabited by Kuli, a tribe somewhat resembling the Bheel, but more civilized and less predatory. The Bheel possess the eastern part of the range, and all the branches that run out from it towards the east, as far as south of Poona; they even spread over the plains to the east, especially north of the Godavery, and the neighbourhood of the Wurda. On the north, they extend beyond the Taptee and Nerbudda. Both the Bheel and the Kuli are numerous in Guzerat. South of Poona the Bheel are succeeded by the Ramusi, a more civilized and subdued tribe, but with the same thievish habits as the Bheel. They have no language of their own, are more mixed with the people, and resemble the Mahratta in dress and manners; whereas the Bheel differ from the rest of the people in language, manners and appearance. Of the latter Mr. Elphinstone remarks, that although they live quietly in the open country, they resume their wild and predatory character whenever they are settled in a part that is strong, either from hills or jungle. The Ramoosi do not extend farther south than Kolapore, or further east than the line of Bejapoor. The Bheel, the Kuli of Guzerat, and the Gond, are considered to be remains of aborigines of India. The two latter classes here alluded to, have maintained more of their original character than the Bheels: they have probably been less disturbed. The Bheel, however, have constant accessions to their numbers from the plains; and wretches of desperate fortune, such as have by crime and misfortune been ejected from their caste or profession, flock to their standard. Hence a variety of feature is observed: hindus of all descriptions, mahomedans of every sect, are here mingled together, and engaged in the same pursuits. They all indiscriminately eat beef and pork, and drink toddy and arrack.—*Coleman.*

The physical features of Central India, including Oodeypore, Malwah, Bhopal, Bundlecund, and Shahabad, may be thus epitomized.

It extends by the Aravalli, Dongupoor, Vindhya, Bindyachal, Panna, and Bandait ranges, 73° to 84°, about 700 miles long; breadth very various, greatest from Amjherra to Ajmeer, 250 miles; from Mhow to Mokundurra, 150 miles; at Saugor and Dumoh, 75 miles; afterwards very narrow.

It is highest towards S. and W.; average of Oodeypore, 2,000 ft., Malwah, 1,500ft. to 2000 ft., Bhopal, 2,000 ft., Bundlecund, about 1000 ft., Shahabad, 700ft., Plain of Ajmere, 2,000ft., Oodeypore town, 24°37′; 73° 49′; 2,064ft. slope to N.E., the Banas river flowing in that direction; gradual fall also to the valley of the Chumbul river, where it rises to Malwah; Mhow, 2,019ft. Dectaun, 1,881ft. Dhar, 1,908ft. Indore, 1,998ft. Crest of Jaum ghaut, 2,328ft. Oojein, 1,698ft. Adjygurh, 1,340ft. Amjherra, 1,890ft. Saugor, 1,940ft. Rhotosgurh, 700ft. Sonar River, at source, 1,900ft. From the Vindhya range, the surface has a generally gradual, but in some places abrupt descent; as at Mokundurra, and the Bindyachal hills, where the rivers occasionally fall over the brow in cascades. Shahabad district is very rocky and uneven. Tin and copper are found in Oodeypore. In Bhopal the prevailing geological formation appears to be trap overlying sandstone. Minerals are few and unimportant. Water is very plentiful. The mineral resources of Bundlecund appear to be considerable.—*Ann. Ind. Adm. Vol.* XI., *p.* 312, 343. *Treaties, Engagements, Sunnuds, Vol.* II., *p.* 195, 197.

CENTRAL PROVINCES, is a term by which, under a Resolution of the Government of India during Lord Canning's rule, the provinces of Nagpore and the territories of Saugor and Nerbudda were united under a Commissioner of the Central Provinces. They consist of perhaps the grandest plateau on the face of the globe, more than half of which is covered by the densest jungle, where the wild beast finds its lair and the Gond savage a precarious subsistence. The plateau is in the very centre of the peninsula. From it, as a focus, radiate the great rivers of the Deccan. To the north flow the Soane into the Ganges, the Cane, the Betwa, the Sindh and the Chumbul into the Jumna. To the west are the Taptee and Nerbudda, and to the East the Wein Gunga, Wurda and Pein Gunga, which form the Godavery. What the Kuen Lun mountains are to the river system of Central Asia and the Himalaya to Northern India, that is the Mahadeo range to the Deccan. It is true that the Godavery and Nerbudda series of rivers are little more than mountain torrents, but engineering science will do much for their navigation, and railways with their feeders will supplement them. On this vast tableland there is soil of surpassing fertility: wood, whether useful like teak or ornamental like ebony, which, with proper conservation, is inexhaustible, and such mineral resources as coal, iron, precious stones and gold. Here, but for the want of population, all the emigrants of England for the next decade might settle and grow rich. The area is 111,238 sq. miles, of which 47,299 are unculturable, and in 1868, about half of the remainder was under cultivation. In 1862, they yielded 80 lakhs a year, but in 1867, the revenue had increased to 120 lakhs. The Satpura range runs 1800 miles, with an average breadth of 60 miles. The Chouradadur plateau is 100 sq. m., and the Nowagaon lake is second only to the Deybur lake in Oodeypoor.

CENTRE DIVISION, a term applied to a Madras military command around that city; there are six military cantonments in it: Madras, St. Thomas' Mount, Arcot, Palaveram, Vellore, Poonamallee, with about 5,600 soldiers, and it provides for the Chinglepput, Nellore, N. and S. Arcot Collectorates.

CENTRANTHUS RUBER.

Jallukree, HIND. | Valerian. ENG.

An ornamental annual, colours of different species are red, blue and white. Valerian grows wild in some of the upper parts of Bengal.—*Riddell.*

CENTROPUS CHLORORHYNCHOS. See Aves. Birds. Ornithology.

CEPHAELIS IPECACHUANA. The roots of this plant are the part used. It is a native of New Granada in Brazil, and its emetic effects were known from time immemorial; it received from the Portuguese the name of 'rais d'oro,' or golden root. The father of the celebrated Helvetius established its utility, and was rewarded by Louis XIV. with a thousand *louis d'or*. The roots of the *Viola parviflora*, the *Psychotria emetica*, and several other plants, have been occasionally used to adulterate ipecachuana.—*O'Shaughnessy, page* 381. For Indian substitutes for ipecachuana, see Calotropis, Crinum, Randia, Pæderia, &c. &c.

CEPHALANTHUS PILULIFER. LAM. Syn. of Nauclea parviflora. PERS.

CEPHALOPODA. The fossil Cephalopoda of the cretaceous rocks of Southern India are thus enumerated by Prof. Oldham, Superintendent of the Geological Survey of India:—

Belemnites fibula, *Forbes*, at Ootatoor, Trichinopoly, B. stilus, *Blandford*, B. seclusus, *Blandford.*

Nautilus Bouchardianus, Shutanure, Olapandy, Pondicherry, Arrialoor, Trichinopoly, Shillagoody. N. Clementinus, Karapandy, Olapandy. N. Huxleyanus, Moonglepandy, Serdamungalum, Andoor, Shutanure, Moonglepandy, Coonum. N. Danicus, Sainthorary, Ninnyoor, N. Justus, Odium. N. elegans. Thuwnanore Andoor, Shutanure. N. splendens, Odium, Annapandy. N. formosus, Karapandy, Andoor. N. Kayeanus, Ootatoor. N. augustus, Odium, Trichinopoly, Puraway. N. clementinus, Coothoor, Trichinopoly, Ootacoil, N. justus, Odium, N. pseudo-elegans, Odium. N. serpentinus, Rayapootha pakkan. N. Forbesianus, Moraviatoor, Odium. N. Negama, Sirgumpore. N. crebricostatus, Ootatoor. N. Trichinopolitensis, Arrialoor. N. rota, Mulloor.

CEPHALUS. In the Greek mythology was Phæton the son of Cephalus and Aurora. The former answers to Aruna, the hindu bird-headed messenger of the sun. The hindu Aruna is the Aurora of the Greeks, who with more taste have given the dawn a female character. —*Tod's Rajasthan.* See Arun. Saraswati.

CERA. SP. IT. LAT. Wax.

CERALLACCA, also, CERA DI SPAGNA. IT. Sealing Wax.

CERAM. The cluster of islets lying at the south-east extremity of the large island of Seran as it is called by the natives, or Ceram, as it is laid down in the maps, are known by this appellation. They are situated in latitude 30° 55′ south, and in L. 133° E., and form one of the most remote trading stations to the eastward, from which the produce of the Archipelago is conveyed in native vessels to this port. The Island of Ceram is the second in size of the Moluccas, having an estimated area of about 10,000 square miles. The mountains are from six to eight thousand feet in height, sending down innumerable streams to the sea. The vegetation is every where luxuriant, and the trees gigantic. Admiral Keppel had in his possession a circular slab of wood from the Island, three and a half inch thick, eight and a half in diameter. The sago palm in particular is more abundant and productive, than on any of the adjoining islands. Cloves and nutmegs grow wild. (*Keppel's Ind. Arch., Vol. II, p.* 196.) The names of the several islets which compose the Ceram group are Seraureh, Gesir, Kaliwaroo, Gorong, Manokoo, and Malomgee. Of these, the two largest are Gorong and Manokoo, and are the only ones of the group which exhibit any appearance of fertility: they are represented to be hilly and covered with wood, except where cleared for the purposes of cultivation, which however seems confined to the little rice which is grown on them. They produce fruit trees in considerable abundance, and among them the durian and mangoosteen, as also the wild nutmeg, the cocoanut and sago palm, the latter supplying to the natives the chief article of subsistence. Ceram has on its western side the three islands Bonoa, Kelang and Manipa. The various articles of commerce, the produce both of sea and land, which are brought from these islands consist of tortoise shell, mother o'pearl shell, beche de mer, wild cinnamon, wild nutmegs, and birds of paradise. The natives themselves, however, of the Ceram Laut islands have never visited this port, the trade to it from thence being exclusively carried on by the Bugi, the Phœnicians of the Eastern Archipelago, of whom a few are settled on the island, while others resort there as a trading station. (*Bikmore*, 253.) Ceram is the largest island of the Moluccas; and, next to Celebes, of all the Archipelago. It is 162 miles long, but its greatest breadth is only 42 miles. The island is one long mountain chain that sets off transverse spurs, and some of the peaks are 5,000 or 6,000 feet in height. (*Bikmore*, 210.) The people of Ceram approach nearer to the Papuan type than those of Gillolo. They are darker in colour, and a number of them have the frizzly Papuan hair; their features are harsh and prominent, and the women are far less engaging than those of the Malay race. The Papua or Alfuro man of Ceram gathers his frizzly hair into a flat circular knot over the left temple, and places cylinders of wood, as thick as one's fingers and coloured red at the ends, in the lobes of the ears. They are very nearly in a state of nature, and go almost naked, but armlets and anklets of woven grass or of silver, with necklaces of beads or small fruits, complete their attire. The women have similar ornaments, but wear their hair loose. All are tall, with a dark brown skin, and well marked Papuan physiognomy. (*Wall.* ii. 41.) The Alfuro of Papuan race are the predominant type in the island of Ceram. Of twenty-eight words of the language of Ceram, nine of the words are Malay, two Javanese, and seventeen are common to these two languages. Casuarius galeatus inhabits the island of Ceram only, and like the cockatoos, crown pigeons, and birds of paradise, of the last island, made known to the inhabitants of the through the Malay and Javanese, who have immemorially carried on a trade with the country of the Papuans. It is a stout strong bird, standing five or six feet high, and covered with long hair like feathers. Its head has a large horny casque or helmet. The Ceram box manufacture has recently excited a degree of interest from the close resemblance it bears to the ornamental work of the North American Indians. A corresponding manufacture is met with in Borneo, with similar ornamental work of shells or wampum, but coarser. See India, p. 319 and 350. Keffing Islands. Kyaboka. Ceram Laut, New Guinea, Papuans.

CERAMBYCIDÆ. In about two months in 1854, Mr. Wallace collected 700 species of beetles in Singapore; a large proportion of these were quite new, and among them were 130 distinct kinds of the elegant longicorns. —*Wallace, I.* 24.

CERAMIC MANUFACTURES. The manufacture of China Porcelain, Earthenware, &c. is an art that may still be said to be in its infancy in India, as no great perfection has been attained in any branch.

Earthenware or Common Pottery.—There are three distinct branches of this manufacture, which though similar in their manipulation, are different in their results. The most common kind is the red porous earthenware used for pots and cooking vessels, the black used for similar purposes and the fine white which resembles some of the biscuit earthenware of Europe.

The red porous earthenware differs very materially in quality according to the locality from which the clay is selected—some are made of a common coarse earthy loam which has very little tenacity, and yields a brittle kind of pottery neither susceptible of much finish nor of being glazed. Most of the pottery of India is of this description, it is made on a curious principle which is unknown in other countries, but which has probably been followed for many centuries in India. The vessels which are mostly of a round form are thrown thick in the neck and upper parts or sides. They are cut off the wheel and left open in the bottom with vertical sides, they are then allowed to harden a little in the necks, and as soon as they will bear to be handled the sides are thinned out by beating with a flat mallet upon a rounded stone or very hard round piece of wood held inside the vessel, which is turned about and beaten till it is closed. This is a very tedious and unsatisfactory mode of working, and the only recommendation is, that it makes a thin light vessel, but at a great sacrifice of time; from 10 to 28 of these is a good day's work, while a skilful European thrower will turn out 800 in the same time. Good samples of this quality of earthenware were exhibited from Travancore, at the Madras Exhibition, they were made from a fine smooth micaceous loam and the general forms are good though heavy. A finer description of this ware was exhibited from Hyderabad, made from a tough smooth plastic clay, and the articles were remarkable for elegance of form and extreme lightness of throwing. Some of the vessels are ornamented with gold leaf and coloured lac varnishes; others had been made in imitation of Bederi ware, some were painted white on a red ground; a few appeared to have been glazed and coloured with a soft lead glaze. On the whole this collection exhibited a marked improvement on the ordinary manufactures of this class; tasteful forms and light throwing being combined, and a good effect having been produced with simple means. Captain Ivie Campbell, Offg. Deputy Commissioner, E. Dn. R. Doab, thus remarks upon the pottery sent from Raichore to the Madras exhibition, "There is but one family in Raichore which can make this description of pottery, they are christians long established here, and the party to whom the amount of prize has been paid was, by Rajah Chundu Lall, presented (probably on account of his skill) with a small ruined hamlet in Mukta, and which has been continued to him by order of the Resident. A brother of his resides at the Beebee ka Chushma at Hydrabad, but the same quality of clay is not procurable there, and his work is stated to be inferior; much of what he sells in the city, gilt chillums, &c., he receives from his brother here. How far his account of the composition of the glaze used can be depended on I cannot say, he states that no lac is used except in fixing the gold leaf. The following is the account given by him :—

24 parts Moordar Sing or Litharge.
3 do. Gar ke Puttur, a stone resembling white quartz common here.
1 part Copper.

Sendoor, or the red oxide of lead, may be substituted for the Litharge. The Gar ke puttur should be well burnt, slaked in cold water and afterwards reduced to a fine powder and mixed with the litharge. The copper is mixed with its weight of finely powdered sulphur and heated in a crucible till a green scale has formed on it, it is then finely powdered and mixed with the Gar ke puttur and litharge. The whole is again heated and reduced to a fine powder once more. A small quantity of this powder is well mixed with wheat starch and kneaded well for some time, water is then added and it is strained through a fine cloth, and the glaze is gently rubbed in with the hand, after which the pottery is baked." This process of glazing pottery is very similar to that practised in Italy, Germany and some parts of England, where paving tiles, green flower pots and common red earthenware, are manufactured. The Gar ke puttur is probably either white felspar or pegmatite, a variety of granite very abundant in Southern India, and composed of three parts felspar and about one part of quartz, but at the bangle works at Loonar lake, the stone is chalcedony. The clay which is employed is probably more refractory than the common red clays of India, most of which begin to lose their shape or to become spongy at the temperature for melting such glazes.

Antique pottery.—The finest specimens of common earthenware are the ancient funeral, domestic and cooking vessels, dug out of the old tombs in the districts of Coimbatore and South Arcot. This kind of pottery has been found in many parts of India in tombs usually arranged in circles, each tomb being built of six slabs of stone and occasionally surmounted by large mounds of loose stones and earth. They have been thought to resemble the Druidical tombs of England, and are supposed to be of great antiquity, there being no records of them extant. The pottery found in them usually consists of tall narrow cinerary urns of 18 or 20 inches in length, with three or four clumsy feet, four inches in length, and of a variety of round oval and flattened vessels of different shapes and sizes, some having apparently been used for cooking and others as drinking vessels. The tall urns usually contain burnt human bones, teeth and ornament of brass, or copper, they are made of a coarse clay, and have not been finished with care, some of the flattened oval and rounded vessels are made of a fine dense clay that has been carefully prepared, the surfaces are variously ornamented with wavy or crossed lines of red and yellow, carefully painted. The pottery appears also to have been smeared (it resembles the potterie antique vernissee et lustree figured by M. Brongniart.) There is great purity of form in most of the vessels, which resemble the Etruscan in the precision of the curves and in the angles at which the different surfaces meet. The art of pottery appears to have deteriorated in India since these samples were made, and one branch of it is apparently lost, viz., the smearing or thin glazing on the surface.

Black Earthenware.—This is a mere variety of the Red, and in most instances it is the same kind of pottery blackened by the simple process of damping or checking the fire when it is beginning to decline, and thus throwing a great deal of smoke amongst the wares when the heat is not sufficiently intense to burn it off. A better and stronger kind of black earthenware is manufactured at Bangalore from a fine dense clay that contains both manganese and iron. This approaches the black stoneware of Egypt, and is strong and sonorous when struck; some good samples were also exhibited in the collection of colored Terra Cottas from the Madras School of Arts.

White Earthenware.—Some light and elegant samples of goglets, butter pots and vases, were exhibited by the Arcot Local Committee. These were considered deserving of a Second Class Medal. This branch of the Art differs from the others in being conducted with more care and cleanliness, some attention being paid to the sifting of the materials and to the ornamenting and finishing of the articles. The material selected is a decaying white granite resembling the Cornish stone of England or the grauen of Germany. This is carefully washed and decanted to free it from sand or impurities ; it is then allowed to subside, the water is poured off and the soft clay is collected on a clean cloth and laid on a heap of white wood ashes to dry ; a small per centage of alkali is thus absorbed through the cloth and is incorporated through the mass by kneading. This clay or decayed white granite is the true kaolin or porcelain earth of China and Europe. It is particularly abundant in India and occurs in beds of enormous extent and of every variety of color. It possesses the valuable qualities of combining with a large percentage of silica, felspar, baryta or other stony bodies and of resisting the most intense heats, but in India it is employed alone and produces a soft brittle porous ware which is not susceptible of being well glazed. Numerous attempts have been made to glaze this description of pottery, but the glaze crazes or cracks all over the surface and allows water to penetrate to the body. The reason is that the kaolins require flint, felspar, or stone to open them, and exposure to a long continued and steady heat before they are thoroughly burnt in the biscuit state. They also require a hard fritt or porcelain glaze, which cannot be prepared without expensive machinery, the firing also involves a great consumption of fuel as the heat must be kept up steadily for 40 or 60 hours.—*M. E. J. R.*

CERAM LAUT. A cluster of islets lying off the south-eastern extremity of the large island of Seran, or Ceram in lat. 3° 55′ S. and 133° E. They produce tortoise shell, mother o'pearl shell, beche de mer, wild cinnamon, wild nutmegs, and birds of paradise. Ceram Laut is the most westerly and the largest of the range of small islands which extend 15 or 18 miles E. & W. Ceram Laut means Ceram lying to seaward. The islands are low. The Keffing group consist of 17 islands. Their inhabitants resemble those of the S. coast of Ceram, and are not of the Papuan or negro race ; they are great traders and constantly visit New Guinea and purchase birds of paradise. Luri, crows, pigeons, megapodiidæ and scented woods. Ceram Laut is the great place to which the Bugi carry the Papuan slaves whom they steal from New Guinea. Ceram Laut, and Goram are seldom visited by Europeans. The natives of the Ceram Laut islands repair chiefly to the northern coast of Papua, or the island of New Guinea, from which they are distant only about a day's sail, to procure the various articles of produce we have mentioned—that part of this vast island being called, by the Bugi, Papua Nothing. Mother o'pearl shells are however procured by the Bugi themselves in greater quantities at the Aroo islands. The Papuans of New Guinea, it seems, have not yet been made acquainted with the use of firearms among themselves; they have the sumpit or blow-pipe, but their principal weapons are the bow and arrow, and a light spear or lance. Although the inhabitants of the Aroo islands are represented by the Bugi as being of the same race as the Papuans, they enjoy as much more unrestricted intercourse with the inhabitants, who trade freely with them and permit them to settle. Mother o'pearl shell is obtained here in great quantities, and tortoise shells and trepang or beche de mer, are also procured. The Aroo people employ their Papuan slaves in diving for the mother o'pearl shell, and in fishing for beche de mer. The people of the Ceram isles appear to have themselves little or no communication with the Aroo islands.—*Journ. of the Ind. Arch. December* 1852, *p.* 690 691. *Horsburgh. Bikmore* 242.

CERASTIUM INDICUM. *W. & A.* Chickweed. *Eng.*

CERASUS, a genus of plants of the Natural order Amygdaleæ, which, in Britain, are arranged into the true Cherries, the Bird Cherries and the cherry laurels. Wallich and Roxburgh mention C. Nepalaisis of Nepal and Kamaon. Puddum of the Himalaya, and C. triflora of China. Dr. Cleghorn mentions "Gilas" the Kashmir cherry, as one variety of cerasus, and Aru ballu, the Kabul cherry, as another variety of cerasus, both grown in gardens of the N. W. Himalaya. Voigt says there is a species of cerasus or cherry, "a native of Maulmain," but Mr. Mason has never happened to meet with it. He had however good authority for the statement, (and Griffith remarks), that there is in the Tenasserim Provinces one species of the almond tribe "which abounds in prussic acid."—*Mason.*

CERASUS CAPRONIA ? Cherry tree. A native of Europe, the Himalaya, Caucasus, &c. In Cashmere it is called *Aloo bal*[illegible]. The kernel of this fruit contains the elements of hydrocyanic acid, and is accordingly much used for communicating its peculiar flavour to brandy and liqueurs.

CERASUS CORNUTA. ROXB.
Prunus padus. *Linn.*

Bird Cherry,	ENG.	Jamuna,	PUNJAB.
Himalaya Bird Cher.	,,		

This is found in the Sutlej valley between Rampur and Sungnam at an elevation of 7000 to 10,000 feet about Simla. It grows to a large size and its wood is esteemed.—*Cleghorn Punjab Report, p.* 65.

CERASUS JAPONICA, the Dwarf Almond, a native of Japan, but long known in English gardens as the Double Dwarf Almond. It is one of the most beautiful objects that appear in the month of March.—*Eng. Cyc. page* 827.

CERASUS LAURO-CERASUS. The Cherry laurel, a native of Trebizond and Afghanistan, cultivated in Europe. The distilled water of the leaves is much used in Europe as a vehicle for opiates and other anodyne medicines. It is given in doses of from half an ounce to one ounce. The distilled fluid is a most dangerous poison.—*O'Shaughnessy, page* 827. See Cinnamomum.

CERASUS PSEUDO-CERASUS. The Chinese Cherry.—*Eng. Cyc. page* 827.

CERASUS PUDDUM.

Prunus puddum. LINDLEY.

Common Bird Cherry	ENG.	Paddam	PUNJAB.
Cherry	,,	Chumiari	„
		Amulguch	„

This is found in the Sutlej valley between Rampur and Sungnam at an elevation of 3000 to 7000 feet. Occurs in Kaghan as far as the Indus. It is a sacred tree among the hindus. The bark is called *pudmak*, and used in medicine by the natives, as it is also in America.—*Clegh. Punj. Report on Kullu and Kangra, p.* 65, 81.

CERASUS SERRULATA, the Fine-toothed Cherry. A native of China.—*Eng. Cyc., page* 287.

CERASUS VULGARIS. *Prunus Cerasus*, LIN. The common Cherry. Is found wild in the woods of Asia Minor, where it acquires a very large size. Dr. Royle considers the cherry to be wild in Cashmere.—*Eng. Cyc. page* 826.

CERATONIA SILIQUA. W. Carab Tree.

Carab Tree	ENG.	Nubtee	ARAB.
Khirnoob shamee	ARAB	Kharroub	„
Saint John's Bread.		Carab tree Fruit.	

The Carab tree has been introduced at the Saharunpore gardens. The pods sell in the bazar at ten rupees a seer, or five rupees a pound.—*Spry's Suggest, p.* 54. *Ains. Mat. Med. p.* 39.

CERATOPHORA STODDARTII. A native of the Kandyan Hills. This lizard is remarkable for having no external ear; and it has acquired its generic name from the curious horn like process on the extremity of the nose. This horn, as it is found in mature males of ten inches in length, is five lines long, conical, pointed, and slightly curved up. *Tennent's Sketches of the Natural History of Ceylon, pp.* 279, 280.

CERBERA, a genus of plants belonging to the natural order Apocynaceæ. C. ahorai has the properties of C. Manghas. C. fruticosa is a large shrub, native of salt marshes, the fruit is a deadly poison. C. Manghas, Kulloa, *Burm.* Is a common plant in the East Indies, occurring in wet situations. The kernels are described by Lindley as emetic and purgative. Waiz states that the leaves are used in Java as an excellent substitute for senna. The milky sap is also said to be purgative; fruit used extensively by the Burmese, to make an oil which they burn in their lamps, and use to anoint their heads. The medicinal properties are unknown in Tenasserim, and Dr. Mason thinks their existence may be doubted.—*Dr. Mason, Eng. Cyc. p.* 330. *O'Shaughnessy, p.* 447.

CERBERA TANGHIN, the Tanghin tree was formerly used in Madagascar for the trial by ordeal.—*O'Shaughnessy, p.* 446.

CERBERA THEVETIA. A large shrub with leaves like the oleander, and bell-shaped yellow flowers. Its milk is poisonous, bark bitter and purgative, also said to be powerfully febrifuge, "two grains being affirmed to be equal to a common dose of cinchona." According to Royle perfectly naturalized in India.—*O'Shaughnessy, p.* 447. *Riddell.*

CERBERA ODALLAM. GÆRTN.

Cebera manghas, *Sime in Bot. Mag.*
Tanghina odallam. *Don.*

Odallam Tree	ENG.	Kat-arali	TAM.
Odallam	MALEAL.		

Common on the Western Coast of India. Wood white and spongy. Nut narcotic and poisonous. The green fruit is employed to kill dogs.

CERBERA MANGHAS, *Linn.*

C. lactaria, *Buch.* | C. quaternifolia, *Roxb.*

Kulloopa. BURM.

This tree grows in Pegu, Tenasserim, Tavoy, Penang, Singapore, Java, Moluccas and the adjacent islands in wet situations. The wood is said not to be used. Its fruit is used very extensively by the Burmese, to make an oil which they burn in their lamps and use to anoint their heads. The kernels are described as emetic and purgative. The leaves are said to be used in Java as a substitute for senna, and the bark is said to possess similar properties.—*Voigt. Dr. Mason, Eng. Cyclop.*

CERBURA, a varied coloured dog, one of the dogs of Yama. He has a second dog called Syama, or black. Cerbura is undoubtedly the Cerberus of the Greeks. Cerbura has other names, all meaning spotted, but it is also called Tri-sera, or Three-headed. See Yama.

CERCIS SILIQUASTRUM. See Cæsalpineæ.

CERCOLEPTES CANDIVOLVUS. See Viverridæ.

CERCOTRICHAS, a genus of birds in India, known as bulbul, C. erythropterus, C. Luzoniensis, C. macrourus. See Bulbul.

CERDAS, also Setas. Sp. Bristles.

CEREAL GRAINS are almost wholly cultivated for food. The seeds of all the Gramineæ, those of the darnel alone excepted, are capable by cultivation of becoming alimentary. The value of grains generally speaking is directly as the size of the caryopsis, and inversely as the thickness of the pericarp. When the grain abounds in perisperm it is heavy, when the envelope is thick the grain is, on the contrary, light, thus :—

Seeds	Weighed
100 of wheat	4·50 grains.
100 „ barley	3·85 „
100 „ rye	2 60 „
100 „ oats	2·50 „

The chemical composition of the grain influences materially the quality of the resulting bread. If the gluten be absent no fermentation takes place in the dough, if the gluten be in excess the bread is heavy and acid. Wheat flour may be considered the type of all that is suitable for alimentary purposes, and in the degree of deviation from this standard consists the inferiority of the other grains. Several diseases infest the cereal grains, generally altering the perisperm, sometimes destroying it altogether; all these maladies are produced by minute cryptogamic plants (mushrooms), of which the three following are the most frequent :—

1. *Caries*, (*Uredo caries*) attacks wheat, usually spares the pericarp, but changes the perisperm into a black fœtid powder. The component globules are devoid of pellicles. The disease is highly contagious.

2. *Carbon or smut*, (*Uredo segetum*) occurs under the epidermis, is composed of spherical globules, attacks all the cereal grains indiscriminately, and resembles black dust.

3. *Ergot or spur*, (*Sclerotium clavus*) is elongated in form, black externally, white and horny within, exceedingly deleterious in its properties, if long taken ; in large doses acts specially on the womb.

Little is known as to the native country of the cereal grains. Michaud states that he has seen wheat growing wild on Mount Atlas. Sicily has, but on insufficient grounds, claimed the honour. Pallas saw wild wheat between the Don and the Volga, but in all these cases the production of a few scattered plants is fairly accounted for on the grounds of the seeds having been transported thither by birds, or with the stores of wandering merchants or commissariat trains. Without cultivation, all the cereals degenerate, as is said to be the case with oats at the Cape of Good Hope. The principal of the cerealea cultivated as food plants, &c., for man, in Eastern and Southern Asia, are :—

Botanical Name.	English Name.	Hindoostanee Name.	Tamil Name.
Hordeum hexastichon,	Barley,... ...	Jow.. ...	Goodoomay.
Triticum aestivum,...	Wheat,... ...	Gihun... ...	Kavaroo.
Eleusine corocana,....	Raggy,.. ..	Natchnee ragee... ...	Areese.
Oryza sativa,..........	Common rice,... ...	Chawal... ..	
varieties,......	Black, Red, Paddy, &c.	D'han... ...	
Setaria italica,...... ...	Italian millet... ..	Kala-kangnee.. ..	Tenney.
„ germanica,..	German millet.. ...	Kora kang... ...	
Panicum miliaceum..	Common millet.. ..	Sawee cheena warree.	Varugoo.
Pencillaria spicata,..	Spiked millet... ...	Bajree... ...	Cumboo.
Sorghum vulgare,....	Great millet.. ..	Jowaree... ...	Cholum.
Zea mays,...........	Indian corn.. ..	MukkaJowaree, Boota	Muka cholum.
Avena sativa,..........	Oats... ...		
Holcus Andropogon saccharatus,...			

Cereals, as they now exist, seem to have been greatly improved from their natural state. Wheat has five, six, or seven distinct species, rye one, barley three and oats 2, 3 or 4 species. Rice, cholum, maize and the millets (together with the European grains, more sparingly met with, wheat, barley, &c), are the cereals commonly cultivated in Southern India. The cereal grasses grown within the tropics do not appear to be so nutritious as those of temperate climates. The Burman books say, there are seven kinds of *saba*, or cereals, in which they include *pai* or beans, rice, wheat, barley, millet, millet (paspalum) millet (panicum,) beans and peas. *Mason. O'Shaughnessy. Darwin on Species.*

CERES, the representative of Ceres, amongst the hindus is Lakhsmi. Amongst the Rajputs Gouri seems to be the analogue of Ceres and on the festival of the Ahairea or Muhoorat ka Shikar. They hunt, slay and eat the wild boar. See Boar.

CERESE. Hind. ? A reddish coloured, hard and close grained strong wood, found in the Santhal jungles from Sooree to Hasdihal, cut scarce. Used by the natives for buildings, furniture, cart-wheels, &c. Suitable for the construction of timber bridges.—*Cal. Engineer Journal, July* 4, 1860, *p.* 155. (*Qu.* Is this the Acacia sirissa ?)

CEREUS, a genus of the Cactaceæ, all of them ornamental exotic plants and about 20 species introduced into India. Many of the species produce beautiful flowers, the stems are angled and jointed, the blossoms open in the evening or during the night, and die away towards the morning. C. flagelliformis, of S. America, which grows in Asia and Africa, is the creeping cereus. C. grandiflorus, Mill (Cactus grandiflorus, Linn.), is the night flowering cereus. Others may be enumerated, *Cactus* hexagonus, Linn ; C. senilis, the old man's torch thistle ; C. speciosissimus, Cactus triangularis, Linn. ; and C. truncatus.—*Riddell. Voigt.* 61.

CERIOPS ROXBURGHIANUS. Arn.

Rhizophora decandra *Roxb.*	Bruguiera decandra *Roxb.*

Garan	Beng.	Ku-byen	Burm.
Ka-by-ain	Burm.		

Grows on all the coasts of tropical Asia. Wood dark reddish, hard and durable, flowers large, white and sweet scented. The bark is used in India for dyeing, chiefly in the Presidency of Bengal. *Voigt. Malcolm.*

CERIORNIS MELANOCEPHALA, the Argus pheasant.

CERISCUS MALABARICUS. Gært. Syn. of Randia dumetorum, *Linn.*

CERITHIDEA, a genus of Molluscs. See Mollusca.

CERITHIUM, a genus of Molluscs. See Mollusca.

CERNE, the name given by the Portuguese to the island of Mauritius, on its discovery : subsequently, while in the possession of the French, it was calld L'islo de France, the Isle of France.

CEROPEGIA, a genus of plants of the Nat. Ord. Asclepiaceæ. They are creepers and trailing plants. C. Arnottiana, *Wight*, is the Oo-ta-lung of the Burmans. C. bulbosa, esculenta, lucida, juncea, Lushii, elegans, Stephanotis, stapeliæformis and tuberosa occur in India.

CEROPEGIA BULBOSA. Roxb. Occurs in many places in India, and every part of it is eaten by the natives. Its roots are of the size of an apple, and when fresh taste like a turnip.—*Roxb.*

CEROPEGIA ESCULENTA, Edge.

Galat, Panj.

In Multan, its acid leaves and tubers are used as a vegetable—*Dr. J. L. Stewart.*

CEROPEGIA JUNCEA. Roxb. A twining plant, grows all over India. It is succulent, with an agreeable acid taste, and is much eaten as a salad by the people.—*Mr. R. Brown.*

CEROPEGIA TUBEROSA. *Roxb. Cor.* 9 ; *W. Ic.* 353.

C. Candelabrum, *R.* ii. 27.

Bach-chali manda,	Tel.	*Pulla manda,*	Tel.

The word '*manda*' is applied to several species of *Ceropegia. V.*

CEROSTERNA GLADIATOR. A longicorn beetle of India ; it eats the bark of casuarina trees.

CEROXYLON ANDICOLA. A native of the Peruvian Andes, of immense height, often attaining 150 feet in elevation ; from fissures in the trunk there flows spontaneously a kind of grey waxy substance, containing two-thirds of resin and one-third of wax identical with that formed by the bee. Melted with a little suet this wax makes excellent tapers. Its introduction into India merits attention.—*O'Shaughnessy, p.* 641.

CERRADURAS, also Cerrojos. Sp. Locks.

CERRISER DE CAYENNE. Eugenia Michelii.

CERTHIA FAMILIARIS and C. Himalayana, &c. : and not unfrequently the exact European species inhabit India.

CERUSE. White Lead. Eng.

Carbonate of lead,	Eng.	Cerussa	Ital.
Safeda,	Hind.		

Used as white paint.

CERVIDÆ, or Cervinæ, A tribe of mamalia, in which are included several generaf the name of the tribe is obtained from cervus, the stag. At the Paris Exposition of 1855, o, the Cervidæ, there were exhibited the following :

Cervus muntjac. Kadang or Kijang, Malay.
Cervus Kuhlii.
Cervus Moluccensis.
Cervus barbarussa. Rusa, Malay.
Cervus axis. Spotted Deer.
Cervus equinus, inhabits Borneo.
Moschus memina, Naper, Malay and Javanese.
Moschus Javanicus, Kauchil, Malay.
Moschus Kanchil, Palandok, Malay.
Antilope dipressicornis.
Cervus Duvaucellii, Bara singha, Hind.
C. Aristotelis, Elk ;
C. hippelaphus, Sambur.
C. vaginalis, Kaher, or barking deer ; muntjac.
C. porcinus, Jungle sheep or [illegible]

The genus Cervus is, however, greatly more restricted by some zoologists. For example, the known species of stag (restricted Cervus) or elephantine type of deer, are seven in number, viz. Cervus Canadensis ; C. affinis ; C. Wallichii ; C. elaphus ; C. barbarus ; C. Sika; C. Taiwanus, as under

1. *Cervus Canadensis.* Brisson. (C. stron-

gyloceros, Schreber ; C. occidentalis, Ham. Smith, C. major, Ord,) is the "Wapiti," or miscalled "elk" of North America.

2. *C. affinis.* Hodgson. (The Show, E. Tibet, Mongolia? North China?) occurs in Mantchuria?

3. *C. Wallichii.* Cuvier. (C. elaphus of Asia apud Pallas, C. caspianus, Falconer ; C. Naryanus, Hodgson). Occurs in Tartary and Siberia, Ural, Caucasus, Persia, Kashmir, valley of the Oxus. The stags in the parks attached to the emperor's Summer Palace near Pekin, would appear to be C. Wallichii.

4. *C. Elaphus.* L. South Europe only. (The "Corsican Stag" of Buffon, being probably only a stunted variety.)

5 *C. Barbarus.* Bennett, Africa, North of the Atlas, especially Tunis.

6. *C. Sika.* Schlegel. Japan.

7. *C. Taiouanus.* Swinhoe. Blyth, J. A. S. XXIX, 90. (C. axis apud Cantor, Ann. Mag. N. H. (1842), note to p. 274). Probably distinct from C. Pseudaxis of the Phillipines, Zool. Bonite, p. 14. Schinz. Mamm. 11, 386.

It may be observed that the "Bara Singha or Elk" inhabiting the Kashmirian mountains is C. Wallichii, not the true Bara Singha of the plains of India, which is C. Duvaucelii.

Among the numerous local names collected by Pallas, there is not one that approximates the word "Alain," but he gives "Baarsingah, *i. e.*, Bara-singa, Indis ; ad Irtin *Maral*, Calmaccis *mas Buga*, cerva *Maaril*, ad Baicalem *Isubr*." *Isubbrissin* is applied by Strahlenberg to the ordinary stag of Siberia, as distinguished from his "Irbisch" or great stag, noticing also the elk, rein deer and roe, and there can be little doubt that this Irbisch (if not also the Alain) and likewise the great stag of Mantchuria and the mountainous regions of the north of China, are one and the same with C. affinis of the forest of East Tibet. During a recent visit to British Burmah, Mr. Blyth found Cervus (Panolia) Eldi, Guthrie, (frontalis, McClelland, gratus, Schinz, dimorphe, Hodgson,) common in the valley of the Irawadi, its venison being often brought to the Rangoon provision-bazar, together with that of the samur, hog-deer, and muntjac or barking deer. These are the only deer of Burma. But southward in the provinces of Tavoy and Mergui, along with others of the Malayan fauna and flora, we find the little Chevrotain, Tragulus kanchil, together with the Malayan Tapir, and, in Mergui, the Galæopithecus, Argus giganteus, Euplocomos Vielloti, Rollulus cristatus, Caloperdix ocellatus, and other Malayan peninsula and Sumatran species. At Moulmein, Mr. Blyth saw C. Eldi alive, in its rufus summer coat, exceedingly resembling the Indian "Bara Singha" (C. Duvaucelli) in corresponding vesture, except that it is rather smaller, with differently shaped horns, and he was satisfied that the C. dimorphe, Hodgson (J. A. S. XII, 897), is no other than C. Eldi, with horns imperfectly developed in a state of captivity. He believes that it is not an inhabitant of the sub-Himalayan sal-forest, any more than the Show of Eastern Tibet, or C. Affinis, Hodgson. The range of C. Eldi extends into the Malayan peninsula ; and this species represents on the eastern side of the Bay of Bengal the C. Duvaucelli of India, with similar habits, being more gregarious and affecting more open country, than the other deer of these regions. (Mr. Blyth, in *Journal of the Asiatic Society of Bengal, p.* 193.) The above will have shown that the Deer tribe of southern and eastern Asia have presented unusual difficulties to the scientific men of Europe. Indeed, Schintz (*Nachtrage zum 2 ten Bande*), suggests that under the denomination Cervus muntjak, six different species lie hid, viz. :

1. *Cervus Styloceros*, Schinz. Syn. C. Muntjak. Linn. apud Ogilby. *Hab.* Himalaya.
2. *Cervus ratwa*, Hodgson. *Hab.* Himalayah.
3. *Cervus albipes*, F. Cuvier. *Hab.* India.
4. *C. Muntjak*, Raffles and Horsfield. *Hab.* Sumatra, Banka, Borneo and Java.
5. *C. Reevesii*, Oglby. *Hab.* China.
6. *C. Antisiensis*, Pucheran. *Hab.* Andes.

(*a.*) *Cervus Wallichii.* Cuv. Tail-less deer of India.

Cervus pygragus, *Hardwicke.*

Red-deer,	Eng.	Goo-koohi,	Pers.
Bara Singha,	Hind.	Gevezn,	,,
Jezrail,	,,	Giana,	Tibet.
Maral,	Pers.		

Occurs in Persia, Nepaul and the Saul forests.

(*b.*) *Cervus affinis.* Tibetan Stag of *Hodgson.*

Saul forest Stag	Eng.	Stroa	Tib.
Bara Singha	Hind.		

Occurs in Thibet and the Saul forests.

(*c.*) *Cervus Sika.* The Sika of Japan, *of* a dark brown colour with slender horns.

(*d.*) *Panolia acuticornis.* GRAY.

P. Eldii *Gray.*	Cervus lyratus *Schinz.*
Cervus frontalis. *McClelland.*	„ Eldii. Cal. *J. N.H.*

Rusa lyratus,	Schinz.	Sangrai,	Hind.
Sangnai,	Hind.		

Occurs in the Munipore valley, and in the Malay peninsula, is exceedingly wary.

(*e.*) ***Rucervus Duvaucelli.*** Cuv.

Cervus Duvaucelli. *Cuv.*
Rucervus elaphoides. *Hodg.*
Cervus elaphoides *Hodgson.*

Bara Singha Hind.
Buraya Hind.

Spotted deer of the Sunderbuns. It inhabits the eastern and northern skirts of Bengal and Hindustan, and the Sunderbuns. It inhabits reedy marshes and the islands of great rivers, never entering the mountains or forests. The tail is short with no caudal disc and no heavy mane.

(*f.*) *Rusa Equina.* Cuv. Ham. Smith.

Cervus Rusa. *Raffles.*
,, equinus. *Cuv.*
,, Hippelaphus. *Elliot Cat.*
Rusa equina, *Gray.*
,, Hippelaphus.

Rusa Etam. *Raffles*, of the people of Sumatra.
,, etam, Malay
,, Kumbang. ,,
Samboo Deer *Bennett.*
Sambur of the Mahrattas
Sambara. *Sansc.*
Eland or Elk of Dutch sportsmen.
Kumbang, Malay.

It inhabits the Dekhan, S. Mahratta country, Sumatra, Borneo and Banka. It is of a pale brown colour. Considering the similarity of colours and size of Cervus equinus, Hippelaphus and Aristotelis, Mr. Elliot is probably right (*Madras Journ.* 1839, *p.* 220) in considering all three as varieties of the great Indian stag, described by Aristotle under the designation of Hippelaphus; and Cervus Peronii, *Cuv.* (Cerf du Timor) may probably be added as a fourth variety.

(*g.*) *Rusa Hippelaphus.* Cuv.

Cervus hippelaphus. *Cuv.*
,, timoreusis *Muller.*
,, mollucensis of Quoy and Gaim.
Rusa ,, *Gray*; *Smith.*
Samber of India.
Mijaugan Banjoa. Malay of Java.
Cerf Noir du Bengal F. *Cuv.*
Hippelaphe of *F. Cuv.*
Cerf d Eau of *Duvaucelt.*
Rusa of Java and Sumatra.
Roussaitan.

It inhabits the great forests of India, Bengal, Sumatra and Java. It is about the size of the common stag. In winter is of a grayish brown and in summer it is of a brighter and more golden brown. The croup is pale yellow, and the tail is brown, terminated by rather long hair, which is rough and hard, and all about the head and neck and cheeks grows long, like a mane and beard.

(*h.*) *Rusa Aristotelis.* Cuv. Gray.

Cervus aristotelis. *Cuv.*
,, hippelapus, *Ogilby.*
,, unicolor. *H. Smith*
Cervus heterocerus *Hodgson.*
,, Bengalensis *Schirz*

Jarai, Hind.
Cerf de Coromand *Cuv.*
Daim noir de Bengal. *Devaucell.*
Jerrow, Hind.
Samboo deer of *Bennett*

It inhabits the great forests of India, it is not gregarious and ruts and drops its horns in spring. Mr. Hodgson describes four varieties of this deer.

(i.) ***Rusa Dimorphe.*** **Spotted Rusa.**

Gower, Hind.
Gever, Hind.

Occupy the Saul forests of India, colour of a red-brown.

(*j.*) *Rusa Peronii*, the smaller Rusa, inhabits Timor, Lombok, Bawian and Ternate,

(*k.*) *Rusa Philippinus.*

Cervus Marianus. Cuv.

The Philippine Rusa.
Cerf de Philippines, *Desmarest.*

(*l*) *Rusa lepida*, the Sundevall Rusa, a native of Java, scarcely as large as a roebuck.

(*m.*) *Axis maculatus.* Ham. Smith, Gray.

Axis Plinius. Erxleben apud *Gmelin.*
Cervus axis ,, *Elliot.*
,, pseudaxis *Gervois.*
Cervus nudipalpebra *Ogilby.*
Black var.
Axis major, A. medius A. minor. *Hodgson.*

Rusa bunga, Malay of Peninsula.
Spotted deer of India.
Chitra Sansc.
Chittal deer of *Hod. and Elliot.*
Thou langna of the Terai, Hogdeer.
Spotted Hogdeer of *Hodgson.*

Inhabits India, the Malay Peninsula. In size and form it resembles the fallow deer and at the shoulder its height is two feet, six or seven inches. The ground colour of the skin is at all times a rich fawn spotted with white, but is nearly black along the back and snow white below. It has a white longitudinal line on the flanks. It lives near water in the jungles, feeds at night. It is timid, indolent and gentle, is easily domesticated and propagates in captivity. It is the spotted deer of Indian sportsmen. The skin and horns of this graceful deer are articles of commerce: in the years 1851 to 1855, Liverpool imported about 700 skins and 20,000 horns a year. They are not so generally distributed as the Sambar, but in many districts are far more plentiful. They go in herds of from six to sixty. So many as six have been killed by one gun during the brief cool stalking-hours of the morning and evening.

(*n.*) *Hyelaphus porcinus.* Sundev.

Cervus porcinus, *Zimmer.*
,, hippelaphus Var 3. *Cuv.*
Var. Axis niger, *Dr. F. B. Ham.*

Para, Hind.
Parha, ,,
Khar, ,,
Laghuna, ,,
Hog deer, Eng.
Porcine deer of Pennant
Sugoria, Hind.
Shgoria, ,,
Brown Porcine Axis of Hodgson, ,,

Inhabits Ceylon, India and Assam. Its legs are shorter than those of the axis, it has no black dorsal streak and no white streak on the haunches. Horns generally short with short snags. They live in herds on the plains and do not ascend mountains.

Cervus pumilis of H. Smith, is supposed to be a variety, and Cervus Dodur of Royle is supposed to be a distinct species.

(*o.*) *Cervulus vaginalis.* Bodd. Gray:

Cervus muntjac, *Zimm.*
Prox ,, ,, *& Sunder.*
Cervus plicatus *Foster.*

Ribbed faced deer of Pennant.
Chevreuil des Indes of Allamand.
The Rae of Europeans in Borneo.
Kidang of the Javanese.
Kijang of the Sumatrans
Muntjac, of the Sundanese.

It inhabits Sumatra, Banka, Borneo and Java. Its height at the shoulders is about 2 feet 2 inch. On its face are two rough raised folds of skin, marking it with the letter V, the point below, colour reddish brown or a light brown, belly and front of thighs pure white. In Java it occupies districts with long grass and the Saccharum (Holcus) spicatum (allang-allang, Jav.) and Phyllanthus emblica are its favourite food, but Hibiscus, Grewia, Urena, and other malvaceous plants are eaten by it. It is impatient of confinement, the points of its horns are turned forwards : it is about the size of the antelope, which with the exception of the horns it resembles in general appearance. *Low's Sarawak, p.* 76.

(p.) Styloceros muntjak. H. Smith.

Cervus muntjak, Zimm. Horsf. Sykes, Elliot, Boddært, Schreber, Marsden, Desmarest, Linne.

Cervus vaginalis, Boddaert.
,, moschatus, Blainville.
,, sub-cornutus ,,
,, moschus, Desmarest.
,, aureus, Ham. Smith.
Cervus philippinus, Smith.
,, albipes, F. Cuv.
,, ratwa Hodgson.
Muntjacus vaginalis, Gray.

Chevreuil des Indes Allamand.
Kidang Malay.

It inhabits the Malay Peninsula, Java, Sumatra, Banka, Borneo, Tenasserim, Nepal, Assam, Bengal, S. Mahratta country, Dekhan.

(q.) Cervulus Mosehatus, De Blain.

Cervus muntjak, *Sykes.* Elliot.
Cervus moschus, Desmarest.
StylocerosRatwa. Hodgs.
Cervus ,, ,,
Prox. Ratwa of Sundevall.
,, Albipes of Wagner.

Barking deer of Nepal.
Ratwa, HIND.
Kaher, ,,
Baiker of the Mahrattas.
Bekra. Mahr. Elliot.
Rib faced deer of Pennant.
Jungle sheep.

Inhabits India, living in forests in the mountains. It is of a bright reddish yellow colour with the chin and gullet whitish. The hair is not ringed as in Cervulus Reevesi ; six or eight live together. Horns of male fall in May, the females have bristly tufts ending in a knot instead of a horn.

(r.) Tragulus Kanchil, Gray.

Moschus palandok, Marsden
Moschus kanchil, Raffles
,, fulviventer, Gray.

Chevrotain de Java. F. Buffon and Gray.
Javan musk, ENG.
Kanchil, MALAY.
Palandok, ,,

Inhabits Malay peninsula, Penang, Lancavay Islands, Sumatra and Java. The largest adult measures from nose to root of tail 1 foot 6½ in.

(s.) Tragulus Javanicus, Pallas.

Moschus Javanicus. Gmelin, Pallas apud Raffles
Moschus Indicus, Gmelin
Moschus Napu, F. Cuv.
Cervus Javanicus.

Oshek Napu, Malay.

Inhabits the Malay Peninsula, Sumatra, Java and Borneo.

(t.) Cervulus Reevesii, Chinese Muntjak. A native of China, C. Vaginalis, C. moschatus and C. Reevesii breed together.

(u.) Cervulus Pygargus.

Cervus, Pygargus, Pallas.

Ahu PERS.
Siaga TARTAR
Tailless roe of Pennant,
Tailless deer of Pennant and SHAW
Dikajakosa RUSS

A native of Central Asia.

(v.) Næmorrhedus Sumatrensis. Ham. Smith.

Antilope Sumatranus, Pennant and Raffles
Antilope intus-capularus, Lichtenstein apud Schinz

Kambing utan MALAY.
Cambtan F. Cuv.

Numerous on the Malay peninsula but frequents the steepest hilly localities, is shy and active and exceedingly difficult to obtain. *Journ. As. Soc. Beng. Eng. Cyc. Horsfield and Moore Cat E. I. Museum.*

CESAR FREDERICH, a merchant of Venice of the 16th century, who wrote of Tenasserim.

CESARIAN ERA of Antioch, was established there in celebration of Cæsar's victory at Pharsalia A. A. C. 47.

CESARA, and Cetaca, flowers mentioned in a story about Krishna. See Krishna p. 548.

ESTRACCION PHILIPPII or Port Jackson shark or dogfish, is usually 3 to 4 feet long. *Bennett.*

CETACEA, an order of mammals which live in the ocean. Amongst them are the whales, the largest of creatures now existing ; also the dolphins, the porpoises, and the dugong. They have fin-like anterior extremities, the posterior extremities being absent, or rather their place supplied by a large horizontal caudal fin or tail. They have no hair on their skin, have no outer ear, and the bones of the neck are so compressed as to leave the animal without the appearance of a neck. Some of them eat plants, or are phytophagous; some are zoophagous, or animal eaters. Seven new species of cetaceans have recently been described from the Bay of Bengal, six of the family Delphinidæ, the seventh belonging to the sperm whales, Physeteridæ, to be called Physeter (Euphysetes) simus.

(A) WHALES.

(*a.*) *Balæna mysticetus.* **The Right Whale.**

B. Grænlandica. *Linnæus*
B. vulgaris. *Brisson.*
B. Rondeletii. *Willughby.*

Right whale. ENG.
Whale bone whale.
Greenland whale.
var a.
Nord kapper whale.
Nord caper whale.
var. b.
Rock nosed whale.

According to Lesson, inhabits all the seas of the globe.

(*b.*) *Balæna marginata. Gray.* The western Australasian whale, has very long and slender baleen, with a rather broad black edge on the outer or straight side.

(*c.*) *Balæna australis, DesMoulins.*

B. antartica. *Lesson.*

Right whale of South Sea whales.
Southern whale bone whale of Nunn.
Common black whale of Sir James Ross.

Inhabits the south seas, and multitudes were seen by Sir James Ross in very high latitudes. It is of a uniform black colour.

(*d.*) *Balæna Japonica.* The Japan whale, is an inhabitant of the coasts of Japan, which it visits periodically. Its head is covered with barnacles.

(*e.*) *Balæna antartica.*

B. antipodarum. *Gray.*

New Zealand whale.
Tuku Peru of New Zealand.

Inhabits the New Zealand ocean.

(B.) FINNERS.

(*f.*) *Megaptera Kuzira.* The Kuzira. It inhabits the Japanese seas.

(*g.*) *Physalis Iwasi.* The Japan Finner. It is very rare. In 1760 one, 25 feet long, was cast ashore at Kii.

(*h.*) *Physalis antarticus. Gray.* Inhabits the New Zealand seas.

(*i.*) *Physalis Braziliensis.* Bahia Finner was brought from Bahia.

(*j.*) *Physalis Australis.* The southern Finner, inhabits the seas of the Falkland islands.

(C.) SPERM WHALES: PHYSETERIDÆ.

(*k.*) *Catodon macrocephalus.*

Physeter macrocephalus. *Linn.*
Physeter gibbus of *Schreber*
„ trumpo, *Bonnaterre.*
Catodon trumpo, *Gerrard.*
Cetus macrocephalus. *Oken.*
Northern Sperm whale.

Its principal food are the sepiadæ or cuttle fish, but it swallows small fishes.

(*l.*) *Catodon Colneti.* The Mexican sperm-whale is an inhabitant of the North Pacific, the south seas, and the equatorial oceans.

(*m.*) *Catodon polycyphus.* South Sea Sperm whale.

Cachalot.
Sperm whale.

Inhabits the southern ocean.

(*n.*) *Catodon Kogia. Gray.* Taken near the Cape of Good Hope. It has a short head, and is supposed to be the young of C. polycyphus.

(*o.*) *Beluga Kingii*, has been taken off the coasts of Australia, where it represents the white whale B. catodon, Catodon macrocephalus.

(D.) DELPHINÆ.

(*p.*) *Neomeris Phocenoides. Gray.*

Delphinus melas, *Ternus.*

A dolphin of the Indian Ocean.

(*q.*) *Phocæna communis.*

Phocæna Rondeletii *Willughby.*
Delphinus phocæna. *Linn.*

Common Porpoise
Porpesso.

(*r.*) *Grampus Sakamata. Schlegel.*

Sakam Kuzira. JAPAN.

Found off the Coast of Japan.

(*s.*) *Grampus Sieboldii.*

Naiso Gata. JAPAN.

A native of the Coasts of Japan.

(*p.*) *Grampus macrorhynchus.* Black fish of the south sea whalers. It inhabits the south seas.

(*q.*) *Delphinapterus Peronii.*

Right whale Porpoise of whalers.

It is found on the Brazil bank, off the coasts of New Guinea and the higher southern latitudes. It lives in large shoals, and its flesh is esteemed a delicacy. It is black, but the beak, the pectoral fins and under part of the body are white.

(*r.*) *Delphinus.* Sea-faring people call the species of this genus, bottle-nose, bottle-head, flounder head, grampus, porpoise, porpesse, or porpus, sometimes even whale, and give the name of dolphin to the coryphæna, a scomberoid fish which changes colour when dying. There are said to be several species of Delphinus.

(*s.*) *Delphinus Heavisidii.* The Hastated Dolphin, inhabits the south sea and Cape of Good Hope.

(*t.*) *Delphinus obscurus.* The Dusky Dolphin. Inhabits the southern ocean, and Cape of Good Hope.

(*u.*) *Delphinus Abusalam.* Inhabits the Red Sea.

(*v.*) *Delphinus Eutropia.* Inhabits the Pacific Ocean and Chili.

(*w.*) *Delphinus Novæ Zealandiæ.* The New Zealand Dolphin. Inhabits New Zealand and Cape Gablo.

(*x.*) *Delphinus Forsteri.* Forster's dolphin, inhabits the Pacific Ocean between New Calidonia and Norfolk Island.

(*y.*) *Delphinus Sao* inhabits Madagascar.

(*z.*) *Delphinus longirostris*, the Cape Dolphin inhabits the seas about the Cape of Good Hope and the Southern Ocean.

(*aa.*) *Steno Malayanus.*

Dolphinus Plumbeus Dussumier. *Cuv.*
Delphinus Malayanus. *Lesson* apud *Cuv.*

Param puan. *Laut, Malay.*
Dolphin Ventre Roux of Paris Museum.

Inhabits the Malabar Coast and coasts of Penang. It is numerous and rather heavy in its movements, but is rarely captured, except by chance in the stake nets. It eats small fishes, Clupea and Glyphisidon cœlestinus. *Cuv.*

(*bb.*) *Steno frontanus*, inhabits the Indian Ocean and the Pacific.

(*cc.*) *Platanista Gangetica.* Delphinus. Shawensis of Blainville.

Platanista	of PLINY.	Sou-sou	of INDIA.
Dauphine du Gange.	T. CUV.	Susa	of BUFFON.

Inhabits the Ganges and Irawaddy.

(*dd.*) *Halicore Dugong.*

Trichechus dugong. *Gmel.*	Dugungus Indicus. *Ham.*

Indian Dugong	ENG.	Le Dugong des Indes	FR.

Inhabits the shallows of the Indian Ocean and about Ceylon, where the water is not more than two or three fathoms deep. It does not appear to frequent the land or the fresh water. Its flesh is delicate. The dugong was noticed as occurring in Ceylon by the early Arab sailors, by Megasthenes (*Fragm.* lix) and Ælian, and subsequently by the Portuguese. It is this creature which has given rise to the tales about mermaids which have till the present day occupied the world, and doubtless bad their origin in the tales of the Arab-sailors. They are phytophagous or plant eaters.

(*ee.*) *Halicore Indicus. Owen.* The Malay dugong, an inhabitant of the narrow seas of the Eastern Archipelago.

(*ff.*) *Halicore Tabernaculi. Ruppell.* The dugong of the Red Sea, has a feeble voice, and feeds on algæ. It is about ten feet long. In February and March, bloody battles occur between the males. Its flesh, teeth and skins are utilized.

(*gg.*) *Halicore Australis.* Manate of *Dampier.*

White tailed manate of Pennant. It is a native of the West Coast of Australia.

(*hh.*) *Halicore Indicus. F. Cuvier.*

Trichechus Dugong	ERXLEBEN.	Halicore Tabernaculum	RUPPELL.
Halicore Cetacea	ILLEGER.	Dugungus Marinus Tiedemann apud	SCHINZ.
Halicore Dugong, Cuvier apud	RAFFLES.		

Dugong	of BUFFON.	Parampuan Laut,	MALAY.
Dugong	MALAY.		

Under these synonyms Dr. Theodore Cantor unites all the above, which he says inhabits the Red Sea, the seas of the Malay Peninsula, Singapore, Sumatra, the Philippine islands, Moluccas, Sunda islands, and New Holland. *English Cyclopædia*, p. 913. *Mr. Blyth in Beng. As. Soc. Journ. Tennant's Ceylon, Dr. Theodore Cantor in Beng. As. Soc. Journal, No.* CLXXII of 11th December 1846.

CETACEUM, *Latin.* Spermaceti. A concrete, fatty substance, found in several parts of the body of the great-headed cachalot whale, the *Catodon macrocephalus.* The head is the chief repository of this secretion, especially a cavity in the upper jaw, in which it exists mixed with oil The spermaceti whale occurs in the Pacific, Indian, and Chinese seas. The liquid first drawn from the head of the animal is a mixture of spermaceti and sperm oil; from this the solid matter is separated by filtration through bags, and subsequent compression. After this it is melted in water, skimmed, and re-melted with a little potash water, to remove the last traces of the oil; lastly, it is permitted to concrete slowly, during which it is crystallized in brilliant white masses. Pure spermaceti is white, tasteless, inodorous, crystalline, insoluble in water, slightly soluble in boiling alcohol; it forms a soap with potash. It is composed of carbon 81·66, hydrogen 12·86, oxygen 5·47. Spermaceti was once much used internally as a demulcent and emollient, especially in troublesome catarrhs and dysentery. It is at present employed solely as an external application, being an ingredient in numerous cerates and ointments. —*O'Shaughnessy, page* 687.

CETRARIA ISLANDICA. Iceland moss.

CETONIDÆ. See Coleoptera.

CEYLON is called by the Hindoos Lanka; Sinhala-diva, its local name, was corrupted into Seren-diva or Serendip by the Arabian pilots, and it is still known amongst Indian mahomedans by the last name. The Arabs, however in addition to Serendip call it also Sinkhul. To the ancients, it was known as Tam-ba-pani, from which came the name Taprobane used by Milton when he writes of

> "The Asia kings and Parthian among these :
> From India and the golden Chersonese
> And utmost Indian isle Taprobane,"
> Dusk faces with white silken turbans wreathed.

The chronicles of the island extend in an unbroken series to 543 B.C. From the Honorable George Turnour's epitome of the sovereigns of Ceylon, it is observed that authentic history commenced with Wejaya, B. C. 543, and the last king of Kandy was Sree Vikrama Raja Singha, who was, in 1798, deposed by the British, and died in captivity at Vellore on the 30th January 1832. Mr. Turnour gives the following fixed points in the chronological history of Ceylon events.

B. C. 543. The landing of Vijaya, in the year of Bud'dha's death.

307. The mission from Dharmasoka to establish Buddhism in Ceylon.

104. The conquest of Ceylon by the Malabars.

90. The founding of Abhayagiri by Wala Gaurbahu.

A. D. 209. The date of the Vaituliya heresy, in Vaivahara's reign.

252. The revival of ditto, in the reign of Golu Abhaa.

301. Death of Maka Sen.

545. Another revival of the Vaituliya heresy, in Ambakira's reign.

838. Origin of the Vijra Waadiya heresy in Mitwella Sen's reign.

1153. The accession of Prakrama Bahu.

1200. „ „ Sahasa Mallawa.

1266. „ „ Pandita Prakrama, Bahu III.

1347. „ „ Bhuwanika Bahu IV —(*Prinsep's Antiquities by Thomas, p.* 299.)

The first authentic account of Ceylon or Taprobane is given by Onesiculus, the Macedonian admiral, who lived B. C. 329 or 330. Diodorus Siculus, B. C. 44, gives an account of it. Strabo also mentions it, and Dionysius, who flourished A. D. 36, confirms former accounts, and alludes to its elephants. Sinbad also speaks of it in the volume, perhaps a compilation and in part a romance, as does Abdoor Razak. Ribeiro also gives a notice of it.

In the reign of Claudius Cæsar, a Roman publican, who farmed the custom duties of the Red Sea, was driven from Arabia by storms on to Ceylon, where he found a flourishing kingdom and an enlightened sovereign, whom he persuaded to send an embassy of four envoys to Rome, by way of the Red Sea, for the purpose of negotiating a commercial treaty. Ceylon is famed in the literature of India as the scene of Rama's exploits, as a place to which Asoka sent a Mission, and in A. D. 1153, a Singhalese monarch fitted out a fleet of five hundred ships to resent an insult offered to his ambassador. Ceylon seems to have been subjected to frequent inroads from Southern India, immediately before and after Christ. Ceylon was occupied by the Portuguese in 1596, was taken possession of by the Dutch in 1658, and by the British in 1796, but native kings continued to reign at Candy till 1818, and the sovereignty of the island of Ceylon was assumed by the British on the 2nd March 1815.

The position of the island has been ascertained to be between lat. 5° 55′ and 9° 51′ N., and long. 79° 41′ 40″ and 81° 54′ 50″ E. Its extreme length from north to south from Point Palmyra to Dondera Head is 271½ miles. Its greatest width 137¼ miles, from Colombo on the west coast to Sangeman Kande on the east, and its area, including its dependent islands 25,742 miles, or about 1-6th smaller than Ireland. Its circumference is about 900, giving a superficial area of about nearly 24,000 miles. Mountains in the interior rise to heights of 6,000 or 8,000 feet.

The mountain system in the south has an area of 4,212 miles, and the following are the heights of a few of the most remarkable places.

	feet.		feet.
Piduratalla galla (8305)	8280	Adam's Peak (7120)	7420
Kirrigal potta	7810	Nammune kulle	6740
Totapella	7720	Plain of Neuera ellia	6210

The mountain system of Ceylon has a pretty well defined position in the centre of the island.

In Ceylon, the rocks are of the plutonic and metamorphic series. Like the peninsula of India, it has a belt of low land of varying breadth, consisting of tertiary strata, running round its coast. Numerous lagoons exist on the east coast, at Nilla veeli, Baticaloa, &c. Adam's Bridge, between Ceylon and Ramnad, consists of several ledges of conglomerate and sandstone, hard at the surface, and growing coarse and soft as it descends till it rests on a bank of sand apparently accumulated by the influence of the currents at the change of the monsoons.

The Maha Welli Ganga river has its source near Adam's Peak, and after a course of 200 miles, enters the Bay of Bengal, at Trincomallee. The Kalani Ganga and Kalu Ganga are on the western coast, and the Walaway Ganga on the south east. The rich and well watered delta between Colombo and Galle is an overgrown waste. The Singalese whose property it is, have covered it with cocoanut, bread-fruit and jack-fruit trees, and on those they are content to live, or rather exist, passing the great part of their time in sleep, while the women of their household work. The population in 1844 was estimated at 1,442,062, and in 1857 it amounted to 1,697,975 besides about 30,000 soldiers and foreigners. Since then an estimate has been made, which shows a population close on three millions. There are various statements as to the races occupying Ceylon. The European population is small and consists chiefly of British emigrants employed in the civil and military service or on the plantations. The Asiatics of Ceylon are the Veddah, the Singalese, the Tamil, and the Mahomedans. The Veddah are hunters, and are supposed to be the aborigines of the island. The Tamils of Ceylon belong to the same race as the Tamils of Southern India, and consist either of those who have been on the island for centuries or who are recent emigrants. They are to be chiefly found in the north-east portion of the island, and the two towns to which they chiefly resort are Jaffna and Trincomalee. Their main occupation is agricultural. The labourers of the island are styled coolies. They come over in large numbers from the continent during the coffee season.

The *Singalese* are the inhabitants proper of Ceylon, and range themselves under the heads of Kandians, low-country Singalese, and Rhodiah. The Kandians are the inhabitants of the hill-country and are a hardy robust race, never till recently intermingling with their low-country brethren. Their language is made up of three component parts. Elu (or Singalese pure), the Pali, and the Sanskrit. They possess an extensive literature, and their religion is Buddhism. The low-country Singalese are either Buddhists, Roman Catholics, or Protestants. The influence of Roman catholicism is very great, and the people are divided into classes after their occupations. Among the Kandyans, and them only, polyandry is prevalent, and the wife has the possession of all brothers. The children call the eldest brother father. A man can bring in another not a relation, to have joint marital rights with himself; indeed the first husband, can so introduce, as many as the wife will consent to receive as husbands. According to Polybius, polyandry was practised in ancient Greece, and in Book xii. we read that it was an old and habitual practice in Sparta. In Kandy, in the *Beena* marriage, the husband goes to reside in the wife's house, and the woman shares the family inheritance with her brothers. The husband, in this marriage, can be dismissed summarily by the family of the wife. In the *Deega*, a more respectable marriage, the wife leaves her own house for that of her husband,—forfeits all claim on the property of her parents, but acquires some claim on that of her husband, and the wife cannot obtain divorce, unless with the full consent of the husband. Divorces are constantly sought for by women on trivial pretences. A child born within nine months of the divorce, must be maintained by the husband.—*Sirr (Ceylon)* says: The principal castes are four, viz., the *Surya Vansa* or Royal Race; this has two divisions, viz.: *Goe Wansa*, division of the Surya or Royal Race. Cultivators, the most numerous in the island, and to it belong the nobles, chiefs, priests, and nearly all the Government servants. *Nille Makareya*, or Shepherds, is the second division of the Surya.

Brachmina Wansa, descendants of brahmins.

Wiepa Wansa, is divided into two classes, cultivators and shepherds.

Kshoodra Wansa, has 60 sub-divisions.

Rhodia, is a caste in Ceylon regarded as unclean, very numerous, forbidden to approach a temple, or any of the higher castes.

Gataroo, an outcast race in Ceylon.

Burgher, in Ceylon, is the name applied to the inhabitants of mixed European and native origin. Lord Valentia who travelled in Ceylon, says the races are the

Rajah Wansaya, the king's caste

Brahman Wansaya, the caste of brahmins, skilled in science.

Wanija Wansaya, the merchant caste.

Gowi Wansaya, the caste of Gowi who cultivate the ground, known in Ceylon by the name of Vellala, which however is not a Singalese word. These Gowi or Vellal, are of the highest caste on the island, there being none of the three superior castes, except the King of Candy, who is of the first.

Chanda layo, inhabitants of the woods, who strip the skins of animals to make thongs for the king's use.

Veddo, a people who live wild in the woods, and kill wild beasts.

Durawo caste, commonly called Chando, which is not a Singalese word. The name Durawo is compounded of two words, which signify, come from afar.

Karawo. There are nine sub-divisions of this which is commonly called the fisherman's caste; it derives its name from a compound word which signifies "evil doers," because the occupation of the caste is the destroying of animals, which by the religion of Buddha is forbidden.—(*Valentia's Voyages and Travels, Vol. I., p.* 492.) One race in Ceylon wear their hair, which is long and luxuriant, dressed like a woman's, with one or two very large tortoise-shell combs fastened in it, which to a European eye imparts a peculiarly unmanly look to the wearer. The dress of women differs little from that of men, but they mostly wear a kind of spencer or boddice with long sleeves. Paintings have been discovered, in India, of which it is difficult to decide the date. But they represent scenes in buddhist history, and the series may extend from the first or second century before Christ, to the fourth and sixth century of our era. One very large picture covered with figures, represents the coronation of Sinhala, a Buddhist king. He is seated on a stool or chair, crowned with a tiara of the usual conventional form; corn, as an emblem of plenty and fertility, is being poured over his shoulder by girls. All the women are naked to the waist; some of them have the end of the cloth, or saree, thrown across the bosom, and passing over the left shoulder. Spearmen on foot and on horseback have short waist cloths only. In another large picture full of figures, representing the introduction of Buddhism into Ceylon and its establishment there, all the figures, male and female, are naked to the waist. Some have waistcloths or kilts only, others have scarfs, or probably the ends of the dhotees thrown over their shoulders. Female figures in different attitudes around, are all naked ; but have necklaces, ear-rings and bracelets, and one, a girdle of jewels round her loins. These curious paintings are the only representations of the actual attire of an ancient period existing in India ; and they show that the ancient style of dress, or fabric of which it was composed, has changed very little to the present day. Dhotees may now be somewhat broader, especially the better kinds of them, and so reach to midleg or lower; but the mode of putting on or wearing this garment, the folds passing between the legs and tucked into the waist behind, and the long plaited or folded ends hanging in front, were precisely the same then as now ; and this also may be said of the saree, or women's garment, tied and worn after the same fashion.

Ceylon is divided into six administrative provinces: Western, Eastern, Northern, Southern, N. Western and Central, the chief towns of whichare Colombo, Trincomali, Jaffnapatam, Point de Galle, KarneGalle and Candy. The revenue of Ceylon in 1867 was £969,936 ; expenditure £927,932 ; surplus £42,004. The trade of the colony has been

	Imports.	Exports.	Total.
1865...	£5,022,179	£3,565,157	£8,587,339
1866...	4,961,061	3,586,454	8,547,515
1867...	4,504,338	3,560,225	8,034,563

The silver coinage in circulation is the rupee, the value of which is two shillings. The dollar passes at 4*s.* 2*d.* Of copper coins—

134 Challi ... = 48 Pice.
48 Pice...... = 12 Fanam.
12 Fanam... = 1 Rix dollar.

This rix dollar is of silver, and was issued in 1808, but is now rarely met with.

The vegetable productions of Ceylon are coffee, cinnamon, coir, sugar, rice, tobacco, cotton, areca nuts, cocoanuts, cardamoms, pepper, arrow root, maize, manioca, fine grains, arrack, cocoanut oil, essential oils of cinnamon, citronella and lemon grass, dye-wood, ebony, and other furniture woods. The sugar-cane was brought to Ceylon from the Mauritius by a merchant of Colombo about 1832. The products chiefly exported to Europe comprise coffee, cinnamon, coir, sugar, cardamoms, dye wood, ebony, coconut oil, and essential oils. Of these the most important by far is

Coffee. When Ceylon become a British possession, it was considered as valuable only for its pearls and spice ; at the present time, the pearl fishery of the island has ceased to be productive, whilst the trade in cinnamon has sunk into an almost profitless speculation. Coffee is now the great staple of the island, and deservedly ranks first on account of the money value of the yearly exports, not less then the great number of persons, both Europeans and natives to whom it affords a regular employment. The yearly crops in 1852 amounted to 300,000 cwts. From 1820 to about 1830 the quantity of coffee shipped to England yearly increased, although it still consisted entirely of the native grown, badly prepared berry, reared without any attempt at cultivation, and ranking below almost every other kind of coffee. In 1830 the first attempt at coffee cultivation and curing was made on a proper scale by the governor of the island, Sir Edward Barnes. The success which attended this experiment, although partial, added to the lowering of the import duty on British East India coffee by the imperial legislature in 1835, and induced several merchants and others to apply for waste forest land, for the cultivation of coffee on the West Indian principle. During 1836 and 1837, upwards of 7,000 acres of crown lands were purchased, and partly cleared and planted. The success of these first operations drew many capitalists to Ceylon for similar purposes, and the land sales which in 1838 amounted to 10,000 acres grew to 78,000 acres in 1841. By the end of 1847, when fresh operations had ceased, about three millions sterling appear to have been invested in coffee planting in this island chiefly by Europeans. The number of plantations formed was 330, the majority of which contained from 120 to 300 acres of cultivated coffee. The total acres brought under this culture up to 1849, were 50,840 ; of which, however, several thousands had ceased to be productive. These estates are situated at a great variety of altitudes ranging from 1,000 to 4,500 feet above the sea level.

In 1849, the total export was 387,526 cwt., value £456,663 ; they rose in 1859 to 601,655 cwts., value £1,488,019. As rule, good coffee cannot be profitably grown in Ceylon at a less altitude than 2,500 feet, the most favourable height being from 3,000 to 3,500 feet. The bestplantations are situated in the Kandian province, where the thermometer ranges at noon about 76, and in the morning not higher than 60. The principal drawback to the success of these pr[illegible]ties has been the absence of roads in and directions, compelling the planter to [illegible]ance, his half dried crop on the heads of co[illegible] chry- on the backs of bullocks, for a dista[illegible] Ceylon to 35 miles, before finding any carr[illegible] port. The dampness and coolness [illegible] climate renders it impossible to p[illegible] the coffee berry in those elevated regions; it has therefore to be conveyed to Colombo, where a constant high temperature enables the merchant to complete the drying process, which the planter had but commenced.

In 1866-7, 837,231 cwts. of coffee were exported from Ceylon, of which 200,129 were grown by natives. Its annual export of cinnamon is lbs. 819,851, of cocoanut oil cwts. 109,557, of plumbago cwts. 50711, of coir 38,543, of ebony cwts. 21,582, and of deer horn, cwts. 8,501.

Cinnamon. From the earliest period at which any record existed concerning the use of this spice, and which extends back to the days of the Roman republic, up to the year 1760, during the latter portion of the Dutch rule in Ceylon, cinnamon grew in a wild state, amongst the thick jungles of the low and hilly country, the best always having been cut upon the light soil of the maritime provinces. This spice is to be found only in the western, southern and central provinces, and there appears little doubt that it was the abundance of cinnamon growing on the west coast of the island, which induced the first Portuguese settlers to fix the seat of their government at Colombo, a spot devoid of any harbour or shelter for shipping. In 1833 the trade in this article was thrown open to the public, and six years later the government commenced the sale of their preserved plantations by monthly auctions. In this way the whole of them with but one exception, have been disposed of chiefly to the English merchants and capitalists. The forests are still searched for the jungle cinnamon by the natives, especially when there happens to be a little better demand for the spice, but the quality of this sort is far below that of the cultivated bark, as much as three-fourths of it being generally devoid of any flavour or aroma. During the early part of the Dutch rule in Ceylon their yearly shipments amounted to 10,000 bales of 88 lbs. each, of which 2,000 were for India, Persia and Arabia. These latter places have long ceased to take any cinnamon, whilst the exports to Europe have been reduced to 7,000 bales of 100 lbs. in 1849, 6,000 bales in 1850, and 5,800 bales in 1851, although the selling price in the London market has been brought down to about one-third to that realized chity years since, In 1835 the export duty servilon was 2s. 6d., and 2s., according to the st; it is now only 4d. per lb. on all sorts.

Braind Cocoanut Oil being both the pro- *Wiep*he cocoanut palm or Cocos nucifera, cultivatoported to Europe, may be noticed The palm tree may be seen in *Kshood.* part of the island, but its favourite locality is the low country within twelve or fifteen miles of the sea coast.

Rhodia,

Of late years European capital and skill have been brought to bear upon this produce with remarkable results. In the western province about 6,000 acres are now covered by fine cocoanut trees, many in bearing at their fifth and sixth years. In the northern province, about 10,000 acres have been cultivated in the same manner, whilst on the eastern coast from 3,000 to 4,000 acres are similarly planted. The ordinary yield of a good tree in full bearing is 50 cocoanuts yearly; many trees on European lands produce from 150 to 200 per annum. For the European market the tree is only available as producing coir, fibre, and rope from the outer husk of the fruit and cocoanut oil from the kernel when dried in the sun. The total shipments of all sorts have lately been about 30,000 to 40,000 cwts. to Europe, and 20,000 cwts. to the state of India and colonies. The manufacture of cocoanut oil for shipment to Europe has only been carried on during the last twenty-five years, although long previously made by the natives for their own use. The bullock mill employed by them to crush the nut and express the oil is of the rudest make, and has remained unimproved for the last 500 years: a good description of it may be seen in Davy's account of Ceylon. The first steam oilmills and hydraulic presses were erected by the Government in 1829, and when found to work well, and the article had become known and valued in this country, the establishment was sold to private parties. This oil has ever since assumed an important place amongst the exports of the island. In 1849, the quantity shipped to England was 512,457 gallons, and in 1850, 791,791 gallons, and in 1851 322,500 gallons. It is this oil which forms the foundation of Price's patent candles; it is also much used by soap and pomatum manufacturers. The quantity consumed in the island must be annually about half of the above quantities.

Sugar, as already observed, is the only article the manufacture of which has been introduced into Ceylon by Europeans. The first canes planted with a view to the manufacture of sugar were carried thither from the Mauritius in the year 1832; they were planted in the central province, in the valley of Dambera.

Cardamoms are collected by the natives in the central and some parts of the southern and western provinces, from plants growing in a wild state amongst dense forests or low jungles. The shipments of this do not exceed 100 to 150 cwts. annually.

Ebony is found in great abundance in the north of the island, and to some extent in the Kandyan country. The great weight of the timber renders its transport very costly, unless where water conveyance can be obtained, which is seldom the case but during the rainy months. Immense forests of this wood are still existing in the island, but to a great extent too far from a port of shipment to be available. The exports of ebony have varied much of late years from 15,000 to 5,000 cwts.

Sapan or Dye Wood is shipped to this country, where it is employed as a red dye. The tree of which this is the mature woody part grows abundantly in the western, southern and central provinces, without any cultivation. It is fit for cutting when about five years old, at which time it attains a height of ten or twelve feet. The exports have been for the last few years about 6,000 cwts. annually.

Essential Oils of cinnamon, citronelle and lemon grass,are made chiefly in the neighbourhood of Galle in the southern provinces. The oil of cinnamon is also made largely at Colombo : it is obtained from the broken or inferior pieces of bark rejected in packing the bales of spice. The other oils are the produce of two highly scented grasses cultivated to a considerable extent by both natives and Europeans for the purpose of distillation. The extent of the trade in this may be thus stated, say for 1849 oil of cinnamon 32,400 ounces, oil of lemon grass 28,000 ounces.

Tobacco is cultivated with some attention and success by the Singalese of the western province, theKandyans of the interior and the Tamils of the northern districts of the island. They are about the size of a large walnut and when deprived of their shell, which is of no value, the nut is found to be equal in size to a nutmeg. They are exported to Calcutta, Bombay, Madras, Singapoor, Penang, and the Maldive Islands, to the yearly value of £30,000.

Cocoa Nuts also form a prominent feature amongst the exports to Indian states, both in the raw and dried state, in which condition they are known by the name of Copra. The shipments take place chiefly at Galle and Colombo, and amount in value to about £14,000 yearly.

Arrack is distilled from the fermented juice of the cocoanut flower, and is prepared in certain districts of the southern province of the island under licences from the Government.

Cotton is grown very generally both by the Singalese and Tamil races, but upon no regular plan nor to any extent.

Rice—Of the highest importance to eastern nations, is largely grown.

Jaggery or native sugar is produced abundantly in the northern districts of Ceylon, from the juice of the Kittool or Jaggery palm, Caryota urens. The sap is drawn off much in the same manner as that from the cocoa palm, but it does not flow so readily, and to obviate this the natives are in the habit of inserting within the surface of the cut flower spike a small mixture of lime, garlic, salt, and bruised pepper. This is left on the incision for a few days, when it is removed and the flower again cut, the sap will then flow readily for several months continuously. The collected juice is boiled in eathern vessels to a certain consistency when it granulates and forms a fair sample of sugar capable of being refined to a good degree of purity. It is a curious fact that the wood of those trees which have been thus tapped is very much harder than that of the unemployed trees in the forests which is quite soft and spongy, the trees longest tapped are much the hardest.

Arrowroot andManioca are both rather extensively grown in the maritime provinces, the former being inferior in quality to that grown in the West India islands.

From the Manioca the Singalese prepare a fine flour resembling arrowroot, but much sweeter and far more nourishing. Boiled or baked with milk it forms a most delicious meal, partaking of the nature of a rich custard.

Cereals. Millets. The finer *Grains* of Ceylon are Koorakam, Cooloo Moongatta, PannaAbba, Ammoo. They as well as an inferior description of rice called Hill Paddy are grown on poor lands and yield a very small return, often not more than three-fold.

Other products. The cultivation of West India ginger in Ceylon has been successful. The Manilla hemp, the China grass cloth plant, and the Durian trees, in 1854-5 were growing well. Keena oil is obtained from the seeds of different species of Calophyllum ; Meeriya oil is yielded by the seeds of several species of Isonandra ; and Madol oil from the seeds of a species of Garcinia. Doon-Doommalle resin is also likely to be a valuable article of commerce. —(*Edin. New Phil. Journ., Vol.* III., *No.* II., *April* 1851, *p. from* 364 *to* 365.)

Tin is found in the alluvium at the base of the mountains to the eastward towards Edelgashena. Gold in the rivers flowing towards the west. Nickel and cobalt, near Saffragam. Many gems are exported from Ceylon, where the ruby, amethyst, topaz, sapphire and cinnamon stone are found in great abundance, but not emeralds. Sapphire, spinell, chrysoberyl and corundum are found in Ceylon The sapphires are red, purple, yellow, bl[illegible] white and star-stone, and are met wi[illegible] Matura and Saffragam, and rubies [illegible] phires at Badulla and Saffragam. The Corundum is very plentiful at Battagamana, on the banks of the river Agiri Kandura. The great bulk of the gems, however, come from Ratnapura, [illegible] means the city of gems. Ceylon affords [illegible] the varieties of quartz; as rock-crystal, amethyst, rose-quartz, cats'-eye, and prase. Rock-crystal occurs in abundance, both massive and crystallized, of various colours, good quality and in large masses. Amethyst also is pretty abundant, very beautiful specimens of this mineral are found in the alluvion, derived from the decomposition of gneiss and granitic rock, in Saffragam and the Seven Korles. A large crystal of it was found near Buanwelle, containing apparently two distinct drops of water. Rose-quartz, which is pretty common, is often found in the same place as amethyst. Ceylon produces the finest cat's-eyes in the world, indeed the only kind that is highly esteemed, and that bring a high price. The best specimens have been found in the granitic alluvion of Saffragam and Matura. Prase is of rare occurrence in the island, only amongst the pebbles on the shore of Trincomalee. Belonging to the schorl-family, are topaz and schorl. The topaz commonly passes under the name of the "white or water sapphire." It is generally white, or bluish or yellowish white, it is commonly much waterworn, and perfect crystals of it are very rare. It occurs in many places in the alluvion of granitic rock.—(*Davy's Travels in Ceylon, p.* 20.)

The Zircon family is richer in Ceylon than in any other part of the world. It is found in the districts of Matura and Saffragam; and is most abundant in the former. "Matura-diamond," is the name applied to its finest varieties by the dealers in gems. Besides the two well-established species, common zircon and hyacinth, there is a third, massive, opaque and uncrystallized, and of a dark brown colour, Specimens of it from Saffragam weigh two or three ounces. The natives are completely ignorant of the true nature of zircon. The yellow varieties are sold by them as a peculiar kind of topaz, the green as tourmalines, the hyacinth red, as inferior rubies, and the very light gray, as imperfect diamonds. All the varieties are found in the beds of rivers, or in alluvial ground, which, both in Saffragam and Matura, is of the same kind.

For the ruby-family, Ceylon has been long celebrated. Four species of it, viz., spinell, sapphire, corundum and chrysaberyl occur. In gneiss or granitic rock, spinell is comparatively rare. Dr. Davy got small and very beautiful crystals of it, which were brought, it was said, from the interior, and he found it in specimens of clay iron-ore, from a part of the Kandyan country where gneiss is the prevailing rock. Sapphire is much more common, it occurs in considerable abundance in the granitic alluvion of Matura and Saffragam, and in the neighbourhood of Avisavelli, and on the Neura Ellyiapatan.

The corundum of Battagammana is frequently found in large six-sided prisms, is commonly of a brown colour, whence it is called by the natives "Curundu galle," cinnamon stone; occasionally it is to be met with partially or entirely covered with a black crust, which is merely the stone with an unusual proportion of iron.

Adularia is very abundant in some parts of the interior, particularly in the neighbourhood of Kandy, where it is occasionally the predominating ingredient of the rock.

Ceylon, has many animals and plants different from those of India. After the first heavy showers the houses in Ceylon are commonly invaded by snakes and venomous insects, dislodged by the water from holes and crevices in which they have been sheltered during the dry season. The game of Ceylon consists of elephants, buffaloes, elk, spotted deer, the red or paddy field deer, mouse deer, the hog, bear, leopards, hares, black partridge, red-legged partridge, pea-fowl, junglefowl, quail, snipe, ducks, widgeon, teal, golden and several kinds of plover, a great variety of pigeons, innumerable snakes, and the crocodile. The acknowledged sports of Ceylon are elephant shooting, buffalo-shooting, deer shooting, elk-hunting, and deer coursing. Sir J. E. Tennant (vol. 1, 2nd Ed., p. 7) informs us that not only plants but animals, mammalia, birds, reptiles and insects, exist in Ceylon, which are not to be found in the flora or fauna of the Indian continent, but the island does not raise the majestic "Gour," which inhabits the great forests from Cape Comorin to the Himalaya, and it is free of the tiger and wolf of India. The hyena and cheetah, common in Southern India, are unknown in Ceylon, and though abundant in deer the island possesses no example of the antelope or the gazelle. Elephants are now only found in the thickly wooded forests. In one mode of snaring them, called Atmaddo, or hand snaring, ropes of hide, with a noose, are slipped by the hunters over the hind foot of the animal and immediately fastened to a tree, the animal moving on, stumbles and falls, on which other hunters immediately twist other ropes about the legs in a figure of 8, and a shed is erected for its protection, until sufficiently tamed to be removed. The solitary, must or rogue elephant, is called *horaalia*, in Ceylon. Amongst Europeans, the most celebrated hunter was the late Major

Rogers, who is said to have shot more than fourteen hundred elephants. The height of a full grown Ceylon elephant varies from eight and a half to ten feet. The tusks vary in length from 3 to 7 feet, and their weights range from 30 to 120 lbs., but 60 or 70 lbs. are the average. A deer as large as the Axis but differing from it in the number and arrangement of its spots has been described by Dr. Kelaart, to whose inquiries the natural history of Ceylon was largely indebted, and he found two new species of monkeys, a number of curious shrews and an orange coloured ichneumon, also two squirrels not discovered elsewhere, (one of them belonging to those equipped with a parachute) as well as some local varieties of the palm squirrel (Sciurus penicillatus, Leach.) Of the birds of the island, upwards of three hundred and twenty species have been indicated by Dr. Templeton, Dr. Kelaart and Mr. Layard, Of the fish the Cybium guttatum, one of the scomberoid fishes, known to Europeans as the seir fish, is the best, but mackerel, carp, mullet, red and striped perches and a sardine, (Sardinella Neohowii,) are used,—*Prod. F. Zeyl. p.* 83. *Tennent's Sketches of the Natural History of Ceylon, p.* 62. *Forbes' Eleven years in Ceylon, Vol. II., p.* 27. *Baker's Rifle*, p. 21. See Buddha, Cepholopterus, Gems. India, pp. 309, 326. Jains. Inscriptions, p. 384, 389, Konig : Kotmaale, Kulit Lawang, Hot Springs, Lecanium Coffeæi Leedes, Kelingu, Leeches, Maha-welli-ganga, Marco Polo, Megasthenes, Navakire, Nicolo-di-Conti, Ornithology, Olay, Pali, Pareyos, Pearls, Papuans, Petrified-wood, Punatu, Polyandry, p. 106. Presbytes, Thersites, Rain, Ramisseram, Rhinophus, Ratnapura, Ravana, Ruby mines, Salt, Sapphire, Satinwood, Sciurus, Sripada Surya vansa, Sus, Tamil, Tea, Teer, Tin, Torch-tree, Trincomallee. Turnour, Valentine, Veddha, Wijao, Woodmoth.

CEYLON ALPINIA. Eng. Alpinia allughas. *Roscoe.*

CEYLON DIAMONDS. See Schorl Tourmaline.

CEYLON INDIGO. See Indigo.

CEYLON MOSS.

Gracilaria lichenoides. *Greville.*
Fucus lichenoides. *Turner.*
,, amylaceus. *O'Shaughnessy.*
Sphœrococcus lichenoides. *Agardh.*
Gigartina lichenoides. *Lamouraix.*

Ceylon moss Eng. Mousse de Ceylon Fr.
Edible sea weed ,,

A small and delicate fucus, well known for the amylaceous property it possesses, and the large proportion of true starch it furnishes. The fronds are filiform ; the filaments much branched, and of a light purple color. It grows abundantly in the large lake or backwater which extends between Putlam and Calpentyr. It is collected by the natives principally during the southwest monsoon, when it becomes separated by the agitation of the water. The moss is spread on mats and dried in the sun for two or three days. It is then washed several times in fresh water, and again exposed to the sun, which bleaches it, after which it is collected in heaps for exportation. 100 grains weight yielded the following proportions

Vegetable jelly...	54·50	Gum ...	4·00
True starch ..	15·00	Sulphate and phosphate of lime ..	1·00
Ligneous fibre ..	18·00		
Sulphate and muriate of soda..	6·50	Total...	99·00

—with a trace of wax and iron. For a decoction, take two drachms ground to fine powder, water one quart, boil for twenty minutes and strain through muslin. By increasing the proportion of the ground moss to half an ounce, the filtered solution on cooling becomes a firm jelly, which when flavoured by cinnamon or lemon peal, sugar and a little wine, is an excellent article of light food for sick children, and convalescents.—*Beng. Phar., p.* 276.

CH. Many of the inhabitants of the outh and west of India cannot pronounce the *ch*, and invariably substitute the *s*. Thus the noted Pindari leader Cheetoo was called by the Dekhanis Setoo. Again, with many of the tribes of the Indian desert, the *s* is alike a stumbling-block, which causes many singular mistakes, when Jessulmur, the 'hill of Jessul,' becomes *Jehulmer*, 'the hill of fools.'—*Tod's Rajasthan, Vol. I., p.* 102.

CHA. Guz. Hind. Port. Tea.

CHAAR BAGH. See Char-Bagh. Jelalabad.

CHA'AB-ARABS occupy the lower part of Mesopotamia. They are a tall, warlike race, strong limbed and muscular, active and healthy. Colonel Pelly, in writing of the Arabs of the Chaab tribes, says it is necessary, when considering the Arabs to distinguish between a series of grades towards civilization, in which they may at present be found. The Bedouin, is wandering, pastoral, tent-loving, disdaining to trade, yet avaricious and willing to sell his ghee, his mutton, or his horse, and always found in wide and open wastes, unpressed upon by adequate exterior power. Yet, even the Bedouin bends to circumstances. He accepts the region allotted for his pasture grounds. Plunder has its laws and vengeance its chivalry. If he will not trade, he has still wants ; and suffers the presence of a Jew or Saleebah as the Affghan suffers that of the Hindoo. A little higher in the scale, as with the Chaab, is the original wandering pastoral Arab, in a district where he is pressed upon from without, and where boundless plunder and roaming are restrained by exterior force. The Arab then partly turns to agriculture, and for this he must in some degree settle. Society harmonizes to this level. Trade is possible. Corn is sold. The Abba are woven and exported. Dates are planted. The appetite for trade grows by what it feeds on. Huts of reeds replace tents; and one sees in their feeble efforts at reed ornamentation, and in their rough twisting of thick reed rope for their bunds, the possible germ of some architectural efforts. Yet higher in the scale is the Arab flourishing as an experienced and wealthy merchant in a town, or administering a well-ordered and comfortable rural district. Passing among these people, society is seen in its transitional state towards civilization.—*Pelly. Rawlinson*, i. 36.

CHABAQ. HINDI. Salicornia bracteata? also root of the black pepper vine.

CHABE OR CHABUL. MALAY. Chabe. CHIN. Chabe Sabrang. *Malay.* Capsicum.

CHABI JAWA. JAV. Long pepper.

CHABINA, parched maize, also parched gram.

CHABUK. HIND. A whip, hence Chabuk-Sowar, a jockey, literally, a whip-rider.

CHABUK CHURI. HIND. Hiptage madablota.

CHABUTRA, HIND. A raised platform, a dais or terrace.

CHACH. Several places on the Indus are named after the Chach dynasty, viz., Chachpur, Chachar, Chachgaon, Chachi. Chach was a brahmin who usurped the kingdom of the Rai dynasty of Sind. He was a contemporary of the Shahram or Shahrear, and he is supposed to have invented the game of chess. He seems to have reigned about A.H. 2, and to have been succeeded by his brother.

The Rai dynasty had ruled from Kashmir and Kanouj to Makran and the port of Dabal on the shores of the sea of Oman, and from Surat to Kandahar and the Solaiman Range. The commencement of this dynasty has not been ascertained, but in the time of Rai Diwaij, the capital was Alor. He was a powerful chief, who contracted alliances with the rulers of India. He was succeeded by his son Rai Siharas I. Rai Sihasi was the celebrated son of Rai Sihara, and the next was Siharas II, who reigned 42 years, and was killed in battle. He was a contemporary of Nousherwan. After Sahasi II, a brahmin dynasty succeeded. Their reign seems to have extended to 137 years and to A. D. 479.—*Elliot.*

CHACHA. A Baluch tribe east of Kahan. See Kelat, p. 491.

CHACHEON or Chachiyon. HIND. Rhododendron arboreum.

CHACH-NAMAH, also called the Tarikh-i Hind-o-Sind, is a translation from an old Arabic history, made about A.D. 1216 (A.H. 613) by Mahomed, then residing at Uch in Sind. The ancient Arabic seems to have been written before A.D. 753. It is largely drawn upon by Nizam-ud-din, Ferishta, Mir Masum and others. Chach-nama is a Persian work descriptive of the Arab conquest of Sind. The Arab occupation of Sind was only temporary. On their retreat the territory reverted to the rule of native princes, and was practically independent until its absorption into the empire, during the reign of Akbar, in A. D. 1592, for the successes of Mahmud, of Ghazni made no permanent impression on them. Up to the time of Mahomed, the races in Arabia had been quarrelling with and robbing their neighbours. But immediately on his demise, his followers and disciples, whom his teachings had made brothers, moved with a spirit of unanimity, and Sindh and Western India were places which they overran.—*Elliot's Hist. of India, p.* 9.

CHACHRI. HIND. Myrsine Africana.

CHACHYA. Coarse sulphur.

CHACKI, in L. 86° 21′ East, and L. 24° 35′ North.

CHACKLER. TAM. A tanner, a shoemaker.

CHACKOONDA. HIND. Cassia tora.

CHACRA. A wheel, a circle, a cycle of years, a weapon of a circular form often placed in the hands of the hindu gods. Rasi Chacra, the zodiac. Varahaspati chacra, the cycle of 60 years. Nachatra chacra, the sphere of the fixed stars. Prachacra, an epicycle on which the degrees of precessional variation are counted.—*Warren, Kala Sanhita.*

CHACRADHARI, or wielder of the discus, the most ancient weapon of the Indo-Getic race. A name of Krishna. See Krishna, p. 545.

CHACKTA, in long. 88° 3′ E., and lat. 23°49′ N.

CHACSHUSHA. One of the Menu. See Brahmadica.

CHADACHEY. TAM.? A small tree of Palghat, wood of a light brown colour, used for buildings and carts.—*Colonel Frith.*

CHADACULA. TAM. TEL. Dammer. Resin. Vateria indica.

CHADAR. HIND. A sheet, a dam, a sheet of sheet iron.

CHADARGHAT, the site of the Residency of Hyderabad, on the left bank of the Musa river. It has been irregularly built over, but contains many christian families and many wealthy hindu and mahomedan residents, bankers and merchants.

CHAELWARI. Pers. Calico.

CHÆTODON ROSTRATA belongs to the *Squamipennes*, which includes the Chætodons and other curious fishes, as the Coachmen the Horsemen, and others. The beaked and rostrated Chætodon of the fresh water rivers of India, when it sees a fly alighting on any of the plants which overhang the shallow water, approaches the place cautiously, till directly beneath the object of its attack. Then placing itself in an oblique direction with its mouth and eyes beneath the surface, it remains a moment immoveable, and taking aim like a first-rate rifleman, darts at the insect, a drop of water from its tubular snout, but without showing its mouth above the surface, from which only the drop seems to rise, and that with such effect that though at the distance of four, five or six feet, it very seldom fails to bring its prey into the water. Another small East Indian fish, the Toxotes jaculator, catches its food by a similar dexterous display of archery. Mr. Hommel, governor of the hospital at Batavia, first noticed the habits of the Chætodon rostrata. It does not expose any part of its mouth out of the water.—*Wood's Zoography.*

CHAGA, also chaga-laga, Tel. Sanseviera Zeylanica, *Roscoe.*

CHAGHTAI, or Sakatai, the Saca-dwipa of the Poorana (corrupted by the Greeks to Scythia), whose inhabitants worshipped the sun, and whence is the river Arverma. As the Chaghtai dynasty drew to its close in Eastern Turkestan, the priestly element began to increase: in 1678, Galdan khan, sovereign of the Eleuth or Kalmuk tribes of Dzungaria, established the khojahs of the White Mountain. But, after a century of dissensions, in 1757, the Chinese brought the Turkestan states under their rule. If we examine the political limits of the great Getic nation in the time of Cyrus, six centuries before Christ, we shall find them little circumscribed in power on the rise of Timoor, though twenty centuries had elapsed. At this period (A. D. 1330), under the last prince of Getic race, Togluc Timoor khan, the kingdom of Chaghtai was bounded on the west by the Desht-i-Kipchak, and on the south by the Jaxartes or Jihoon, on which river the Getic khan, like Tomyris, had his capital. Kojend, Tashkand, Ootrar, Cyropolis, and the most northern of the Alexandria cities, were within the bounds of Chaghtai. The Gete, Jote, or Jit, and Takshac races, which occupy places amongst the thirty-six royal races of India, are all from the region of Sakatai or Chaghtai. Regarding their earliest migrations, the Poorana furnish certain points of information and of their invasions in more modern times, the histories of Mahmood of Ghizni and Timoor abundantly acquaint us. From the mountains of Joud to the shores of Mekran, and along the Ganges, the Jit is widely spread; while the Taskshac name is now confined to inscriptions or old writings. Inquiries in their original haunts, and among tribes now under different names, might doubtless bring to light their original designation, now best known within the Indus; while the Takshac or Takiuk may probably be discovered in the Tajik, still in his ancient haunts, the Transoxiana and Chorasmia of classic authors; the Mawar-ool-nahr of the Persians; the Turan, Turkisthan, or Tocharisthan of native geography; the abode of the Tachari, Takshac, or Toorshka invaders of India, described in the Poorana and existing inscriptions. The Getes had long maintained their independence when Tomyris defended their liberty against Cyrus. Driven in successive wars across the Sutledge, they long preserved their ancient habits, as desultory cavaliers, under the Jit leader of Lahore, in pastoral communities in Bikaner, the Indian desert, and elsewhere, though they have lost sight of their early history. The transition from pastoral to agricultural pursuits is but short, and the descendant of the nomadic Gete of Transoxiana is now the best husbandman on the plains of Hindusthan. Were we to contrast the literary acquirements of the Chaghtai princes with those of their contemporaries of Europe, the balance of lore would be found on the side of the Asiatics, even though Elizabeth and Henry IV. of France were in the scale. Amongst the princes from the Jaxartes are historians poets, astronomers, founders of systems of government and religion, warriors, and great captains, who claim our respect and admiration.—*Tod's Rajasthan, Vol.* I., *pp.* 6, 60, 322. See Affghan.

CHAGOS ISLANDS and BANKS, called also Diego Garcia, extend from lat. 7° 39′ S. to lat. 4° 44′ S., and lie between 70° 35′ and 72° 50′ E. The Chagos, Laccadive and Maldive archipelago, are groups of atolls and madreporic reefs, are all low coral islands, densely clothed with cocoa-nut trees. The Maldives, the most southerly cluster, include upwards of a thousand islands and reefs. The Laccadives are seventeen in number.

CHAGRIN. Fr. Shagreen.

CHAGUL-BANTI. Beng. Dæmia extensa, *Brown*

CHAGUL KHURI. Beng. Ipomæa pes-capræ, *Sweet.*

CHAGUL NUDI. Beng. Sphæranthus hirtus. *Burm.*

CHAH. Tea.

CHAH. Hind. Pers. A well. Hence chahi, belonging to a well, or lands irrigated from wells.

CHAHAL. Pers. Forty. Hence Chah'lum, the forty days of uncleanness after child birth.

CHAHAR BAGH, in long. 70° 41′ East, and lat. 34° 8′ North.

CHAHI. Land irrigated from wells.

CHAHIL or **CHAHIRA,** a rajpoot tribe, of which the greater part is now converted to mahomedanism. There are a few in the Hissar district and on the borders of Bikaneer. Though mahomedans, they nevertheless retain charge of the tomb of Goga Chauhan, a hindu prince now esteemed a saint. —*Elliot. Wilson.*

CHAHIL, in long. 72° 30′ E., and lat. 30° 40′ N.

CHAHIL. Pers. Forty.

CHAHL-TAN. A range of mountains which form the western boundary of the valley of Quetta or Shawl.

CHAHL MINAR. See Kermanshah.

CHAHLUM. Pers. Hind. From Chahl, Pers., forty, a mahomedan ceremonial for a woman forty days after child-birth.

CHA-MAHI-DAR, properly Che-mahi-dar, farm servants, hired for six months.

CHAHOONG ? A tree of Akyab, grows to a moderate size, and is plentiful in Ramree and Sandoway districts. Used in house building. (Qu. Is this Chakoong—or the Cordia myxa?)—*Cal. Cat.* 1862.

CHAHUMAN or **CHOHAN.** This is the most valiant of the Agnicula and rajpoots, not of them only, but of the whole rajpoot race. Its branches (sacka) have maintained all the vigour of the original stem; and the Hara, the Kheechee, the Deora, the Sonigurra and others of the twenty-four, have their names immortalized in the song of the bard. The derivation of Chohan is coeval with his fabulous birth: the four-handed warrior Chatoor-bhooja, Chatoor-baha, Vira.

CHAIA. Maleal. Oldenlandia umbellata.

CHAIHRA. See Chera.

CHAILCHALIRA. Parmelia chamchadalis.

CHAILE. Hind.? A tree of Chota Nagpore, furnishing a hard, white, grey timber. —*Cal. Cat. Ex.* 1862.

CHAILGOOCKY, in Long. 77° 14′ E and Lat. 15° 8′ N.

CHAIN. Low caste races in India.

CHAINAISH. See Kush.

CHAINHAR, of Hazara, the Nussiessya hypoleuca.

CHAIPEL HARRA. See Har.

CHAIRWEJEPOH, in long. 76° 15′ E., and lat. 10° 6′ N.

CHAISHUSHA. One of the Menu. See Menu.

CHAIT, a hindu month, (March-April) commences when the sun enters into Pisces.

CHAITI, spring and Rabih harvest. *Guddi padva* ceremony or flying of paper kites is held as the new year, on the new moon of Chaitra, about the 5th April.

CHAITANYA, was the son of a brahmin who settled at Nadhya, but was originally from Srihatta or Tibet. He was a Vaishnava ascetic who founded a sect in Bengal, along with Adwaitanand and Nityanand, two men of domestic habits. The manner of his death, about A. D. 1527, is not known: but it occurred at Nilachal or Cuttack, where he had resided, adding energy and repute to the worship of Juggurnath. The sect worship Kirshna as Param-atma or supreme spirit, prior all worlds, and both the cause and substance of creation. In his capacity of creator, preserver and destroyer, he is Brahma, Vishnu and Siva: and in the endless divisions of his substance or energy, he is all that ever was and will be. Besides these manifestations of himself, he has for various purposes assumed specific shapes, as Avatars or incarnations; *Ansa* or portions; *Ansana* or portions of portions and so on ad infinitum. His principal appearance, and in fact his actual sensible manifestations was as Krishna, and in this capacity he again was present in Chaitanya, who is worshipped as the deity, as are the other forms of the same god, particularly as Gopal, the cowherd, or Gopinath, the Lord of the Milk Maids of Vindraban, his feats in which juvenile characters are regarded as his *Lila* or sport. All persons of all castes and occupations are admitted to the sect from the conviction that all are alike capable of feeling the sentiments of faith and devotion. See Bhakti.—*Wilson's Hindu Religion.*

CHAITYA. Sans. Any sacred object worshipped by the Buddhist, as a tree, an altar, a temple, as well as any monument raised on the site of a funeral pile, as a mound or pillar, and is probably applicable both to the buddhist Chodten, or offering to the deity, and the Dungten, a bone or relic receptacle. The Stupa or Chaitya of Indian buddhism are supposed to have been erected subsequent to the Cave temples and Viharas or monasteries. The ancient stupa were originally meant as receptacles of either the Buddhas or the Bodhisattvas and the kings who encouraged the propagation of the Buddhist faith. Chodten or Chorten of Tibet, are similar to the Stupa. They consist of a cylindrical vase, and have a cupola over them. They serve as relic repositories, remains of revered Lamas, sacred writings. But they are principally offering receptacles, and no Tibetan passes by without depositing some offering or oblation.—*Hyder's Eastern Monachism, p.* 43. *Cunningham's Bhilsa Topes.* See Buddha, Dehgopa, Karli, Kumala, Topes.

CHAK, a circle or marked off plot, a wheel of a cart, any wheel.

CHAK or CHUK. An extract: very sour: eaten in Ajmere to give appetite and promote digestion. It is probably the extract of "chuka" or sorrel: one tola is sold for one anna.—*Gen. Med. Top. page* 132.

CHAKAR, a country bounded on the east by Jeshekten, on the west by Tourmet, and by the Sooniot district on the north. In this Chakar district, is the city of Tolo-Noor (seven lakes) called by Chinese "Lama Mias," by Mongols "Nadan Omo," by Tibetans "Sat Doon." On the French map the place bears the name of "Naiman Soomc."—*Prinsep's Tibet, Tartary and Mongolia, p.* 39.

CHAKAR. Hind. A servant, hence, Chakari, generally however duplicated, as noukri chakri.—*Elliot.*

CHAKAUNDA. Hind. Cassia tora.

CHAKH. See Guluban.

CHAKIYARA, in Malabar, a class of outcaste brahmins.—*Wilson.*

CHAKKAN. Hind. also Chakkala, Hind. An oil press.

CHAKKI. Hind. A hand mill.

CHAKKILI. Tam. Mal. A currier, a tanner; shoemaker, the village shoemaker; known to Europeans as a chuckler. The chakkili is one of the non-aryan races of India—*Wilson.*

CHAKMAK. Hind. Flint.

CHAKO, or Katti Jogi. See Jogi.

CHAKOLTI. Hind? A light, pale yellow coloured wood, not strong. Plentiful in the Santhal jungles from Raneebahal to Nonihaut or over a distance of about thirty-five miles. Native furniture, tables, palkees, venetians and doors are made from this wood.—*Call. Engineers' Journal, July* 1860.

CHAKOO, also Churri. Guz. Hind. Penknife.

CHAKOR SURK and Chakor kandla, Hind. kinds of imported iron.

CHAKOON SEEDS. Seeds of Cordia myxa. An ointment is prepared from them, which is an excellent application to ringworm. Chakoon-ki Binj, Hind. Cordia myxa Seeds.

CHAKOOLYA, Beng. Hemiontis cordifolia.

CHAKOR. Hind. Atash Khor. Pers. The Chakor partridge, Tetrao rufus (Perdix rufa,) or Cacabis Chakor of Jerdon. The birds are said by the natives to be enamoured of the moon, and at full moon to eat fire. The two Persian words signify fire eater. The chakor is an extremely common bird in all parts of the valley of the Indus, and throughout Tibet. In winter, when the hills are covered with snow, they are to be found in great numbers close to the rivers, even in the immediate neighbourhood of the villages; in general, when approached, they lie close among the crevices of the stones. Dr. Thomson was invited by the thannadar of Iskaro to be present at a hunting party, which he had arranged for the capture of the *chakor*, or painted partridge, by surrounding a spot of ground, in which these birds are numerous, with a ring of men, who, approaching from all directions, gradually form a dense circle of perhaps a hundred yards in diameter. When the partridges are disturbed by a horseman in this enclosure, they can only fly towards the living wall by which they are surrounded. Loud shouts, and the beating of drums and waving of caps and cloaks, turn them back, and they are driven from side to side till at last, exhausted with fatigue, and stupid from the noise and confusion, they sink to the ground, and allow themselves to be caught by hand. The scene was a very striking one. The spot selected was a deep dell, full of rocks, but without trees. The sport, however, did not seem so successful as usual, six or eight birds only being captured.—*Dr. Thomson's Travels in Western Himalaya and Tibet, p.* 2.

CHAKOTR, Hind. also Chakotra, Citrus decumana.—*Linn.* The Shaddock or Pumello.

CHAKOWAR, also Jangli-powar. Hind. Cassia obtusifolia.

CHAKRA, the discus of the god Vishnu resembling a wheel or quoit, a sort of missile weapon, whirled round the middle finger, and used as a weapon of war. The Chakra is mythologically described as a circular mass of fire, darting flame in all directions, which thrown by the gods, slays the wicked, and then returns to the hand from which it issued. The Sikh Akali usually have several of them on their conical caps. They fly with great rapidity and strike hard but with most uncertain aim. They are expensive and are almost useless weapons. See Hindoo, Siva, Namam, Kasambi, Vishnu.

CHAKRA-KELI ARITI, or Aritiel, Tel. Musa paradisiaca, L. A small delicate kind of plantain. Perhaps Chakra should be read Sakkara, "sweet."

CHAKRA VAKA, or Sans. Ruddy goose: the birds are supposed to be separated through the night.

CHAKRA VARTA, Sans. a paramount sovereign, an emperor. A name borne by some families of brahmans, in Bengal, corrupted commonly into Chuckerbutty. In Buddhism, a universal emperor, endowed with supernatural powers. See Topes. *Hyder's Eastern Monachism, p.* 435.

CHAKRAVARTI KURA, Tel. Chenopodium album, L. R. ii. 58. The words mean "Emperor Vegetable." Sans. syn. *Vastuka.*

CHAKRI. Ben. CHAKRIKUDU. Tel. An oilman.

CHAKRINA. See Vaishnava.

CHAKSU, Hind. Cassia absus.

CHAKTI, a disk or flat circular piece of steel, also a disk of leather used on the axle boxes of carriage weels.

CHAKUN. A river of Boondee.

CHAKUNDA. Beng. Cassia tora.—*Linn.*

CHAKWA. Hind. A duck, the brahmany duck.

CHAKWAEN. A small class of Rajputs in Ghazipur. *Wilson.*

CHAL. Guz. Hind. Bark, the bark of any tree: the skin of a living body.

CHAL. Hind. Rosa Brunonis. Conocarpus latifolia.

CHAL, Hind. manners: customs. Commonly duplicated into "Chal Chalu" or use and wont. The chál of the Rajpoot, like the *mores* of the Romans, or *costumi* of modern Italy, is significant alike of the mental and external habit. In the moral point of view, it is the path chalked out for him by the sages of antiquity; in the personal, it is that which custom has rendered immutable. *Kya boora chál chalta,* in what a bad path does he march! says the moralist: *Báp, Dádá, chal chora,* he abandons the usages of his ancestors, says the stickler for custom. *Tod's Rajasthan, Vol. I., p.* 607.

CHALAI, of Kaghan, Juniperus excelsa, J. arborea, pencil cedar. See Charai.

CHALAN, Hind. A permit, any invoice —*Elliot.*

CHAL-ANAR, Hind. rind of fruit of Punica granatum, the pomegranate.

CHALAPACHCAHI, Tel. Indigofera enneaphylla, *L.—R.* iii. 376.

CHALAR, the Persian wheel of a common well transferred to the bank of a canal, the margin of a jheel, or the high bank of a river.—*Powell. Hand Book, p.* 209.

CHALBANE. Greek. Galbanum.

CHALCEDONY, a quartzose mineral found at Cambay and in many parts of India.

CHAL-CHAHRA. Hind. Parmelia Kamtschadalis.

CHALCOPHAPS, INDICUS, Linn. Called by the Singhalese neela cobeya, a bird of Ceylon, strikingly elegant both in shape and colour, has a pleasing note.

CHALCOPSITTA ATRA. The black lory of New Guinea.

CHALDEA. The tract of country first occupied by the Chaldeans was the mountainous district of the Chasdim, or Chalybes, in Central Armenia, a little way northward of Erz-Rum. We also find traces of this people in the names given to different places at intervals, westward of the source of the Euphrates, as far as the banks of the Halys, and likewise in Babylonia, a part of which, together with the whole tract of country lying between the rivers, was designated Chaldea by some of the oldest writers, and more particularly Berosus, who speaks of a great resort in Babylon of the people inhabiting Chaldea. Strabo speaks of the Chalybes, Mosynœci, &c., and the former are now called Chaldeans. (*Strabo, xi.* pp. 528, 529.) This people, or rather the Sabean followers of Cash, are to be distinguished from those descendants of Shem, who, at a later period, occupied part of the mountains of Assyria and the country westward of the river Tigris, and to whom, though, perhaps, erroneously, the Chaldean name has been more particularly applied. The earliest kings of Babylonia are designated Chaldeans—(See *Fragments from Apollodorus, Syncellus, and others,* pp. 30, 56, 67.) In Ptolemy's time, the name Chaldea was evidently applied to a tract of country touching the south-western extremity of old Babylonia, and extending from thence to the Persian Gulf along both sides of the Shatt-el-Arab, and therefore including some of the territory lying eastward of Ur of the Chaldees. In this section of the country, Ptolemy places the towns and cities of Shunda, Rahacharta, Shalata, Atha, and Teredon, all on or near the river, whilst inwards from thence were situated Chumara, Bethara, Beramba, and Orchoe. Instead of these places, we now find the modern city of Basrah and the towns of Diwaniyeh, Imam-Ali, Lamlum, Semavah, Kut, Suk-el-Shuyukh, Mujayah, Kurnah, Girdelan, Zabeid, Mohammarah, Waist, and Kut-el-Amarah. Having briefly noticed the changing limits of Chaldea, it will be seen that the Cushdim territory before mentioned (the Armeno-Chalybes of Pliny) formed but a small part. The Chaldeans, and their neighbours the Tibareni, were subject to Armenia. (*Strabo,* xii. *p.* 555. *quoted by Chesney, p.* 92.)

The origin of this native race has been largely discussed by several learned men. Professor Rawlinson believes that Chaldea was a part of the great Mesopotamia plain, bordering the Persian Gulf on the south, with Arabia on its west, and the limit between lower and upper Mesopotamia on the north. Chaldea seems to have been divided into a northern portion from Hit to Babylon, and a southern portion from Niffer to the shores of the Persian Gulf. In each of these there seems to have been a tetrarchy, viz., Babel, Erech, Accad and Calneh, in the land of Shinar (Gen. x. 10) and Hur, or Huruk, Nipur and Larsa or Larancha, which seem to be the scriptural Ur of the Chaldees, Erech, Calneh and Ellasar. The northern tetrarchy was Babel or Babylon, Borsippa, Cutha and Sippara, the last the Sepharvaim of Scripture. A Semitic or Aramaic race is usually supposed to have early occupied the great alluvial plain at the mouth of the Euphrates and Tigris. They called themselves Aram, and the Greeks called them Assyrians, or Syrians, and Niebuhr regards the early inhabitants of lower Mesopotamia as pure Aramæans closely akin to the Assyrians from whom indeed he regards them as separated only politically, and this view is taken by Bunsen and Muller, but Professor Rawlinson (i. 54) regards as correct, the scriptural statement that they were Hamites, Cushite or Ethiopian. The first Babylonish dynasty began B.C. 3784, by a powerful Chaldee kingdom in Southern Babylonia and the historical city of Babylon is supposed to have been built B.C. 3250. The Chaldean Dynasty lasted for 1550 years, B C. 2234, when Babylon was taken by Zoroaster, a Mede, who then founded there the second Babylonian dynasty. The Median dominion ended B.C. 2011, after a rule of 224 years. The Chaldee were on several occasions the dominant race. The term Chaldea, is derived by Pococke from Kula a tribe, and deva a god or brahmin. Chaldæans were undoubtedly the first people who dwelt in cities and formed a nation in the south of Persia. They settled in Mesopotamia, but it is supposed that they originally came from near Ararat and that they had spread northward towards the Caucasian range, where they engaged in astronomical pursuits. Astronomy indeed seems to have originated with them. They were conquered by the Assyrians, by the Babylonians and by the Persians, under Cyrus. In the time of Pythagoras, and in the time of Daniel, they were a race set apart, engaged in astronomical studies and laying claim to magical powers. They invented and employed a Saros or restitution period of 18⅓ years. They latterly chose the heavenly bodies as types of the divine attributes, and in later times made them objects of adoration, particularly revering planets. They were acquainted with the procession of the equinoxes, making use of a tropical year of 365 days, 5 hours, 49 minutes, 11 seconds, (only 25 seconds too great) and a siderial year of 653 days, 6 hours, and 11 minutes. They knew the art of dialling. By the Saros period they were able to calculate and predict lunar eclipses and the days on which the sun's eclipses might be expected. This period is still used by astronomers. There are good reasons for supposing that the Chaldæans were acquainted with the true system of the universe. The invention of astronomy has, however, been attributed to the Egyptians, who probably derived their knowledge from a more ancient nation. The Chinese have no claim, and when the claims are investigated of the Indians, Persians and Babylonians, it is found that the systems of astronomy belong to a latitude considerably higher than Benares, Persepolis or Babylon, but somewhere between 35 and 55 North. Brahminical books teach that the longest day in summer is twice as long as the shortest day in winter, which is not the case in any part of India. Zoroaster taught the Persians imilarly, and Ptolemy obtained ancient Baylonian records of star risings, belonging o latitudes not lower than the 40th parallel. he astromonical symbols of the planets ave been derived, in all probability from haldean and Assyrian sources. The symbol f the planet Mercury is the ♀ is the cauceus hich, like the petasus, is an emblem of astern origin. The symbol of Mars ♂ repreents a round shield and spear. The symbols f Jupiter and Saturn ♃ and ♄ are doubtful, ut are probably the syro-arabic form of the umbers four and five, indicating the position f these bodies. *R. A., Proctor. Saturn nd its system. London,* 1865. ***Rawlinson, Layard, Bunsen.*** See Abraham, Affghanistan, rab, Astronomy, Babylon, India, Iran, Kurdisan, Mesopotamia, Serpent, Terah, Yavana.

CHALDEE, an aramaic dialect, differing ut slightly from the proper Syriac: Ezra iv. to vi. 8 and vii. 12-26; Daniel ii. 4 to vii. 28, and Jeremiah x. 10 are written in the so alled Chaldee. There is also a Chaldee gloss n Genesis xxvi. 47. The Babylonian language n the time of Nebuchadnezzar is very close to Hebrew. The Chaldee language may have been that of Terah, but the possibility of the language of Abraham remaining in its original state during the 216 years that he and his family resided in Canaan; and the 430 years that the Hebrews abode in Egypt; and the 400 years from the Exodus to David, is untenable. *Rawlinson.*

CHALDEE, a race who have embraced Christianity. They are called Nestorian christians, but they do not acknowledge the correctness of the designation. One of their tribes is the Tiyari. Matran Hanna, the Syrian patriarch at Mousul, gave Mr. Rich the names of the following tribes of this people, whom he called

Nestorian christians,—The Tiyari, Tkoub, Jelooi, Liweeni, Beerwaree, Nerooi. There are both mahometans and christians of the Neroof and Berwaree tribes: the others are all Nestorians. There are four villages of Nestorians near Amadia called Gheranmoosi, who wear felt hats. The Tiyari are an independent christian tribe of the Chaldean nation, who are much dreaded by all the mahomedans. These christian tribes are geographically within the limits of the territory of Hakkari. *Rich's Residence in Koordistan, Vol. i., p.* 156.

CHALEMBRI—? See Chomondri.

CHALES. French. Port. Shawls.

CHALEESGAUM, in Long. 75° 3' E. and Lat. 20° 34' N.

CHALI· Hind. Amphicome arguta.

CHALIA, a race in Ceylon who cultivated the cinnamon tree. See Challa.

CHALITA. Beng. ? ? speciosa. Thun.

CHALK.

Tyn-abyaz	Ar.	Calcis carbonas	Lat.
Myæ-bew	Burm.	Capir engris	Malay.
Vilaite chunna	Duk.	Gil-i-safid	Pers.
Carbonate of lime	Eng.	Creda	Port.
Craie	Fr.	Mjel	Rus.
Kreide	Ger.	Ratta-hunu	Singh.
Kurru	Guz.	Greda	Sp.
Khurri mutti	Hind.	Sima chunambu	Tam.
Creta	It.	Sima sunnam	Tel.

This is found in the Dhone talook at Kurnool, but it is generally imported from England. When prepared it is called "whiting." Other preparations are used in the arts and in medicine. Black chalk used in the arts, is a dark colored clay.—*Royle, Faulkner, Ainslie.*

CHAL KUMRA. Hind. Benincasa cerifera.

CHALLA. Hind. A thumb ring, and a great toe ring.

CHALLA. Tel. Asparagus racemosus.

CHALLA, this caste form the majority of the rural population near Galle in Ceylon. They came originally from the coast of India as weavers or embroiderers.—*Tennant.* See Chalia.

CHALLA. Beng. Dillenia speciosa.

CHALLA GADDA. Tel. Asparagus adscendens, *Roxb.* Asparagus racemosus.

CHALLA, GUMMUDU. Tel. Gmelina parvifolia, *R.* iii. 87;—*Challa* means "buttermilk;" churning-sticks are made from this shrub.

CHALLA MUNTA. Tel. Fluggea leucopyrus, *Willd.*

CHALM-CHI. H. A wash hand brass basin.

CHALLODRA, Eleusyne coracana.

CHALON, also Chalomea. Hind. Populus ciliata.

CHALS, also **CHALES.** Fr. Shawls.

CHALTA or **CHALITA.** Beng. Dillennia speciosa.

CHALUKYA, also called Salunki, a race known, as one of the four tribes of Agnicula rajputs, the other three being the Chohon, the Pramara and the Purihara. They claim to have been princes of Sooru on the Ganges. They are divided into sixteen branches:

1. Bhagela.—Rajah of Bhagelkhund (capital Bandoogurh), Raos of Peetapoor, Theraud and Adaluj, &c.
2. Beerpoora.—Rao of Lunawarra.
3. Behila.—Kulianpoor in Mewar, styled Rao, but serving the chief of Soloombra.
4. Bhoorta.
5. Kalacha. } In Baroo, Tekra, and Chahir, in Jessulmer.
6. Langaha; Mahomedans about Mooltan.
7. Togru.—Mahomedan in the Punjnud.
8. Briku. do do
9. Soorki—In Dekhan.
10. Sirwureah.—Girnar in Saurashtra.
11. Raoka.—Thoda in Jeipoor.
12. Ranikia.—Daisoori in Mewar.
13. Kharura.—Allote and Jawura, in Malwa.
14. Tantia.—Chandbhur; Sakunbari.
15. Almetcha.—No land.
16. Kulamor.—Guzerat.

The Chalukya once held lands in Guzerat, Khandeish, Kaliani and Warangal.—*Tod's Rajasthan.* See Jains. India, p. 324.

CHALUKYA, a dynasty of the Deccan. Mr. Walter Elliot tells us that this is the oldest race of which we find satisfactory mention made in the records of the Dekhan: they seem to have belonged to the great tribe that, under the general name of rajputs, exercised dominion over the whole of Northern and Central India. The names anterior to Teilapa Deva (Saka 895) are given on the faith of two inscriptions which profess to be taken from older inscriptions on copper plates then extant, supported by confirmatory evidence. The inscriptions collected by Mr. Elliot relate to four dynasties of princes, reigning over the greater portion of that part of India now denominated the Dakshina or Dekkan, but at that time Kuntala-desa. The capital was first Kalyan in the mahomedan province of Kalburga, and subsequently Devagiri, now the modern city of Dowlatabad. The limits of this kingdom seem to have been the Nermada on the N.; the ocean on the W.; the line formed by the Kanarese language on the S. E. and on the S. W., these would include the provinces of Nuggar or Bidnor and of Sunda. The eastern boundary probably did not extend below the ghats, below which lay the kingdoms of Kalinga and Andhra.—*Prinsep's Antiquities by Thomas, p.* 277.

CHALUN, of Kotgarh, Populus ciliata.

CHALUNDAR. HIND. Iris Nepalensis.

CHALUP. See Dyes.

CHALYBÆUS, a genus of birds known as paradise birds. Le grand Chalybe is Chalybæus paradisæus. See Aves, Birds, Birds of Paradise.

CHALYBS. LAT. Steel.

CHAM. See India, p. 315.

CHAMA. TEL. Colocasia antiquorum *Schott.*

CHAMA. A genus of shells of which C. albida, C. asperella, C. echinulata, C. gigas; C. graphoides, C. gryphoides and C. unicornis occur in India.

CHAMÆROPS, a genus of Asiatic palms, some species of which furnish useful products, but no timber. C.excelsa produces materials for the *So-e* of China, a brown fibre surrounding its trunk, very strong, and employed by the Chinese, in many domestic purposes, as for bed bottoms and used by all the population, for ropes and cables for their junks: it grows in northern and central China.—*Seeman.*

CHAMÆROPS HUMILIS, or Palmetto, is used in the North of Africa and South of Europe, for making baskets, brooms, mats, and cordage, and paper and pasteboard are made of its fibres by the French in Algeria.—*Royle Fib. Pl. page* 95.

CHAMÆROPS KHASIANA. The fan-palm, ("Pakha," Khas.), grows on the cliffs near Mamloo on the Khasia hills: it may be seen on looking over the edge of the plateau, its long curved trunk rising out of the naked rocks, but its site is generally inaccessible: while near it grows the *Saxifragis ciliaris* of English gardens, a common plant in the north-west Himalaya, but extremely scarce in Sikkim and the Khasia mountains. This species of Chamærops is very closely allied to, if not identical with *P. Martiana* of Nepal, which ascends to 8,000 feet in the western Himalaya, where it is annually covered with snow: it is not found in Sikkim, but an allied species occurs in Affghanistan, called P. Ritchiana. The dwarf palm of Southern Europe is a fourth species.—*Hooker Him. Jour. Vol.* II, *page* 280.

CHAMÆROPS RITCHIANA, *Griffiths.*

Peer Putta	HIND.	Pfees	SINDI.
Maizurrye	PUSHTOO.		

Grows in masses below five thousand feet, on the barren hills and passes, leading up into the table land of Beloochistan and Affghanistan. Its leaf bud or cabbage is eaten. Its scurf with saltpetre is used as match for the matchlock. Its wood for fuel and its leaves "*phurra,*" are fabricated into baskets, fans, brushes, sieves, shoes, sandals, pouches, platters, and ropes for water wheels.—*Seeman.*

CHAMAINDOO-POO. TAM. Camomile. Anthemis nobilis, *Linn.*

CHAMALU. TEL. Oplismenus frumentaceus,'*Kth.*—Panicum frumentaceum, R. i, 304.

CHAMANTI. TEL. Chrysanthemum Roxburghii, *Desf.*—C. Indicum, R. iii. 436. The name is applied indifferently to all the cultivated kinds of Chrysanthemum.

CHAMAK PATHAR, oxide of iron, magnetic-iron-ore, Chamak. *Hind,* means "*glancing,*" pathar, a "stone." hence the name.

CHAMAKHRI. HIND. Michelia champaca.

CHAMAN, of Bistan, a meadow near Bistan in the most westerly part of Persian Khorassan. See Kandahar.

CHAMAR. HIND. A tanner, a currier, a leather worker, shoe maker. It is from chamra, Hind, leather. The chamar race have many divisions, and form a large part of the non-hindu races of Hindustan. In the Peninsula, they are few and reside outside villages. They are generally said to be divided into seven classes: viz. the "Jatooa," in the North-West, in Dehli, Rohilcund and the Doabs; the "Kateean," in Bundelcund and Sagur; the "Koorl," in the Central and Lower Doab; the "Jyswara," near Allahabad, Jounpur, Meizapur and Benares; the "Jhooseea" in Ghazipur and Behar; the "Azimghurea," in Azimghur, and Gorukpur, and the "Birberea," and "Koree" or "Korchamra" in Oudh.—*Elliot* x.

CHAMAR. A. Mi Ass.

CHAMARR. HIND. Ehretia aspera.

CHAMARA, or Chawri, or Chowr. HIND. A kind of whisk, made sometimes of peacock's feathers, sometimes from the tail of the yak, sometimes of the shavings of sandal-wood, of horse hair or of grass; and used for the purpose of driving away flies, musquitoes, and other insects. They are usually seen in the hands of the attendants of the gods. The chamari or chowri from the white bushy tail of the Tibet cow, was, in ancient India, fixed on a gold or ornamented shaft, between the ears of the horse, like the plume of the war-horse of chivalry; the banner or banneret, with the device of the chief rose at the back of the car; sometimes several little triangular flags were mounted on its sides. "The waving chowri on the steed's broad brow points backwards motionless as a picture".—*Coleman, p.* 376, *Hindu Theatre, vol.* i. *p.* 199.

CHAMARFO of Spiti, a deep red earth used in dyeing.

CHAMAR-GOUR, a division of the Gour rajpoots.

CHAMARI. Mar. Premna integrifolia.

CHAMATEE-PATEE, Beng. Papyrus dehiscens.

CHAMB, land that receives the drainage of higher lands, generally a heavy blackish clay.

CHAMBA, a district in the Western Himalaya South of Jamu, between L. 32° 33′ N., and L. 75° 76′ E. The town of Nurpur is 2050 feet above the sea. This Rajpoot principality came into the possession of the British government in 1846, and part of it was made over to maharajah Golab Singh. By an agreement with the maharajah of Cashmere in 1847, Chumba came again entirely under the British government, and a sunnud was given to rajah Siree Sing, assigning the Chumba territory to him and to his male heirs, who are entitled to inherit according to the Shastras, and on failure of direct issue, to the heirs of the brothers according to seniority. In 1854, the sanatorium of Dalhousie in the Chumba territory, was made over to the British by the rajah, the stipulation being that Rupees 2,000 should be remitted from the yearly tribute, which now stands at Rupees 10,000. A Sunnud was given to the rajah, conferring on him the right of adoption. Chamba, Kuppoorthulla, Mundee and Sookeit are four cheftaincies in the North West of India and Punjab.

Area, Square miles...		3,216
Population		1,20,000
Revenue ...	Rs.	120,000
Tribute ...	,,	10,000

Sookeit, an ancient Rajpoot principality which came into possession of the British government by the Treaty of Lahore. In 1864 full sovereignty was conceded to the rajah Oogur Sein, his heirs and those of his brothers according to seniority, unless specially set aside by Government for incapacity or misconduct. The right of adoption has been conferred on the rajah by sunnud. —*Aitchieson's Treaties, &c., page* 375.

Area ...	Sq. miles	420
Population	...	44,552
Revenue	Rs	80,000
Tribute	,,	11,000

Kuppoorthulla.—The chief of Kuppoorthulla at one time held possessions both in Cis and Trans-Sutlej, and also in the Baree Doab. The scattered possessions in the Baree Doab were gained by the sword, and were the first acquisitions made by sirdar Jussa Sing, the founder of the family. In them lies the village of Aloo, whence the family spring, and from which the designation "Aloowalia" is derived. The Trans-Sutlej estates were also acquired by conquest, and from the chief city therein, Kuppoorthulla, the family derives its general designation. Of the Cis-Sutlej possessions, some were conquered, and some were granted by maharajah Runjeet Sing, prior to September 1808. The total value of the Cis-Sutlej possessions was estimated at Rupees 565,000. By a treaty of the 25th April 1809, the sirdar of Kuppoorthulla was pledged to furnish supplies to British troops moving through or cantoned in his Cis-Sutlej territory; and by article five of the Declaration of the 6th May 1809, he was bound to the British standard with his followers during war. In 1826 the sirdar, Futteh Sing, fled to the Cis-Sutlej states for the protection of the British Government against the aggressions of Runjeet Sing, and protection was accorded. It was declared that the Aloowalia chief was under British protection in respect to his ancestral possessions east of the Sutlej, but dependent on Lahore for places conferred by the Lahore Government prior to September 1808, viz., Bussee, Narraingurh and Jugraon. The protection of the British Government, however, extended over both. In the first Seikh war the troops of Kuppoorthulla fought against the British at Aleewal, and, in consequence of these hostilities, and of the failure of the sirdar to furnish supplies from his Cis-Sutlej estates to the British Army, the Cis-Sutlej estates were confiscated.

Area ..	Square Miles.	598
Population ...		212,721
Revenue...	Rs.	5,77,000
Tribute ...	,,	1,31,000

In 1849, sirdar Nihal Singh was created a rajah. He died in September 1852, and was succeeded by his son, Rundheer Sing. During the mutiny of 1857, and subsequently in Oudh in 1858, the rajah Rundheer Sing rendered service to the British. The government, among other rewards, remitted a year's tribute, and permanently reduced the tribute to its former amount, viz., Rupees 1,31,000. For his services in Oudh the rajah received the estates of Bonudee and Bithowlee in perpetuity, with remission of half the revenue, and he has been guaranteed the right of adoption.—*Aitcheson's Treaties, &c., page* 373.

Mundee.—This ancient Rajpoot principality came into the possession of the British Government by the Lahore Treaty of the 9th March 1846. Full sovereignty was conceded to the rajah Bulbeer Sein, his heirs and those of his brothers, according to seniority, unless specially set aside by Government for incapacity or misconduct. The right of adoption has been conferred on the rajah by sunnud. —*Aitcheson's Treaties, &c., page* 374.

Area . ..	Sq. miles	1,080
Population...		139,259
Revenue...	Rs.	3,00,000
Tribute	,,	1,00,000

CHAMBA. An idol of the Tibetans.

CHAMBA. Hind. Michelia champaca,

Prinsepia utilis, Jasminum grandiflorum, and J. officinale.

CHAMBA-GUDDI, a race who occupy the Kangra valley, near the Chamba range of hills. They call themselves rajputs, and may always be known by their peculiar conical caps, with lappets to turn down over their ears, like an English travelling cap. They are shorter and stouter and stronger than their neighbours, are sharp and able, and impose upon their less knowing neighbours. Most of the witch finders are chamba-guddi. When Europeans first visited the Kangra valley, they would drink or eat from their hands, and had very slight notions of caste, but since their intercourse with the people of the plain they have become as bigoted as any hindus.

CHAMBAL. HIND. Ranunculus arvensis.

CHAMBELI. HIND. Jasminum grandiflorum.

CHAMBERS OF SACRIFICE. See Hindoo.

CHAMBHARGOONDA, in long. 74° 30′ E. and lat. 18° 40′ N.

CHAMBOGUM, the Tamil name of a tree the most beautiful in appearance on the coast of Malabar; it has a very close grained wood, and throws out rather a pleasant smell when cut. It is generally found in the forests of Travancore of about eighteen inches in diameter, and from twenty to twenty-five feet long; it produces a small round fruit which the natives use medicinally.—*Edye M. and C.*

CHABRA. HIND. Artemisia Indica.

CHAMB-ROHI, HIND. In the Panjab land, good for rice.

CHAMBU. DUK. HIND. Tinned iron.

CHAMBUK, in long. 87° 42′ E. and lat. 21° 57′ N.

CHAM CHIKEE. BENG. Lourea vespertilionis.

CHAM-COLLAO ISLAND, in its south part, is in lat. 15° 54′ N. off Cochin China. It is well cultivated.—*Horsburgh.*

CHAMDUI, HIND. Santalum album. White Sandalwood.

CHAMEAU. FR. The Camel. Camelus.

CHAMELEONIDÆ. A family of reptiles of the section Squamata, and order Sauria. There is but one genus, the chameleo, or chameleon, the "thinsemeth" of the Hebrews, of which there is one species in India, C. zeylanicus, *Lour*, of Ceylon, the peninsula of India and Midnapore. Several occur in Madagascar, viz., C. bifurcus, C. cucullatus, C. nasutus, C. Parsonii, C. Rhinoceratus and C. Verrucosus. C. tiaris occurs in the Seychelles and C. pardalis in Bourbon. The East Indian species C. Zeylanicus has many synonyms.

CHAMI. TEL. Premna spicigera, *Linn.*

CHAMIARI. HIND. Prunus puddum.

CHAMISM. See Cham, India, p. 315.

CHAMISSOA NODIFLORA. MART. Syn. of Allmannia nodiflora. *R. Br.*

CHAMKAT. HIND. Desmodium tiliæfolium.

CHAMKHARAK. HIND. Carpinus viminea. Himalayan hornbean.

CHAMLOO. One of the seven Kazzilbash tribes. See Kazzilbash.

CHAMMA. TEL. Canavalia gladiata, *D.C.—R.* iii. 300.

CHAMMA. HIND. Salix alba.

CHAMNHO-LA. COCHIN-CHIN. Indigo.

CHAMNO, Khem and Renpu, Assyrian deities of Semitic extraction. See Ken.

CHAMOIS. ENG. FR. Chamois leather.

CHAMOIS LEATHER.

Chamois,	FR.	Camoscio,	IT.
Samischleder,	GER.	Semschanui, Koshi,	RUS.

A prepared skin of the chamois, or of the common goat, kid or sheep. It is of a yellow colour, soft and pliant and used for cleaning silver plate.

CHAMOMELUM. LAT. Anthemis nobilis, *Linn.*

CHAMOMILE. ENG. Anthemis nobilis. *Linn.* The flowers.

Babunuj,	ARAB.	Babune gao,	PERS.
Babune phul,	HIND.	Chamenda pu,	TAM.

An aromatic herb, leaves used in garnishing, the flowers infused as bitters, and in fomentations. Of easy culture, raised from seed, held in estimation, both in domestic and scientific medicine.—*Anthemischia* is supposed to be the xamaimelon of Dioscorides, but others, as the Matricaria suaveolens, have been substituted in India. M. Chamomilla was at one time distinguished as common Chamomile, and the other called Noble or Roman Chamomile, the present *Anthemis nobilis.* Jaffrey.

CHAMOSTREA. A genus of molluscs.

CHAMOMILLA. LAT. Camomile.

CHAMPA-NUTEYA (*var.* Lal.) BEN. Amarantus polygamus. *Linn. Roxb.*

CHAMOTI. HIND. Michelia champaca, also Tulipa stellata.

CHAMP, a valuable kind of timber from the Magnolia excelsa.

CHAMPA, a province in the Peninsula of Cambodia. Before its subjugation by the Cochin Chinese, it was a considerable state under a chief who lived at Phanrye, Lat. 11° 10′ North. In the 15th century an intercourse subsisted with the Malays and Javanese, and, about the middle of the 15th century the Queen of the principal sovereign of Java was a Champa princess. The people are called Loye or Loi in the Anam language, and profess a kind of hindooism resembling the worship of

Buddha or the Jains.—*Crawfurd Embassy to Siam.* See Cambogia, Sakya-muni.

CHAMPA. Hind. also Champaka, Beng. Michelia champaca. The flower is one of five with which the hindu "Kama," the god of love, ornaments his arrow. When Vasant'ha, the personified spring time, is preparing the bow and shafts, for his friend,

> 'He bends the luscious cane, and twists the string
> With bees, how sweet! but, oh! how keen their sting!
> He with fine flowerets tips the ruthless darts,
> Which through five senses strikes enraptured hearts;
> Strong Champa, rich in odorous gold;
> Warm Amer, nursed in heavenly mould;
> Dry Nag-Kesur, in silver smiling;
> Hot Kittikum, our sense beguiling;
> And last, to kindle fierce the scorching flame,
> Love-shaft, which gods bright Bela name.

See Kama, Kameri,"

CHAMPA. Hind. Alnus, species.

CHAMPAC BARK. Bark of Michelia champaca, used in medicine.

CHAMPADAH. See Dyes.

CHAMPAGNE. A deservedly esteemed wine, named from the province of France producing it. There are two distinct classes of this wine, viz. *white* and *red*, each either still or sparkling; but there is a great variety in the flavour of the produce of different vineyards.

CHAMPAGNE SYRIA. A name of Mesopatamia. See Babel. Mesopotamia.

CHAMPAH, a tree which grows on the summit of the lofty hills, north of Khatmandoo, measures in girth eleven feet.—*Smith's Nepaul.*

CHAMPA-KALI. Hind. Necklace.

CHAMPAKAMU, S. Chámpčyamu, S. Michelia Champaca, *L.*

CHAMPA KULA. Beng. Musa sapientum.

CHAMPA SHASTI, a hindu festival in the west of India held about the 2nd December on the 6th of Margha shirsh-shud. It is held wherever there is a shrine of Kandoba, as at Jijooree in the Dekhan.

CHAMPAWTEE, the principal town of Kamaon.

CHAMPA-ZARD-RANG. Hind. Amongst dyers, a yellow colour like the Champ flower.

CHAMPHUNG, a rude tribe, in Munnipoor, of about 30 or 40 families near the source of the Irawadi. See India, p. 339.

CHAMPIRI KATTA. Tel. Broom grass.

CHAMPLOONG. Malay. A timber tree of the Archipelago, used as a furniture material at Bawean.

CHAMPORNAGUR in Long. 86° 57′ E. and Lat. 25° 14′ N.

CHAMRA. Hind. Skins, hides, leather.

CHAMRA. Hind. Desmodium species.

CHAMRESH, also Sunbar, Hind. Rhododendron campanulatum, alpine rhododendron.

CHAMRO. Guz. Hides, skins.

CHAMROR. Hind. Ehretia aspera.

CHAMTANG, in Long. 86° 50′ east, and Lat. 27° 50′ north.

CHAMULI. Hind. Michelia champaca.

CHAMUNA. Hind. The edible bulbs or nut like root of Cyperus bulbosus, or allied species.

CHAMUNDA, in hindoo mythology, as related in the Durga Mahatmya, an emanation of the goddess Durga, springing from her forehead to encounter the demons and Munda, detached to seize the latter by the sovereign of the Daitya, Sumbha, and her appearance, which is thus descibed in the Markandeya Purana, accords in most respects with the allusions to these points. "From the forehead of Ambika, contracted with wrathful frowns, sprang swiftly forth a goddess of black and of formidable aspect, armed with a scymitar and noose, bearing a ponderous mace, and decorated with a garland of dead corses, robed in the hide of an elephant, dry and withered, and hideous, with yawning mouth and lolling tongue and bloodshot eyes, and filling the regions with her shouts." Having slain the demons, she bore their heads to her parent goddess, who told her that having slain Chanda and Munda, she should thenceforth be known on earth as Chamunda. She is also termed Kali from her black colour, and Karala or Karalavadana from her hideous countenance. *(Hind. Theat. Vol.* ii.,*p.* 57.*)* It is to this hindoo goddess that all human sacrifices are made by hindoos. The existence of anthropophagi, was known to ancient writers, but latterly discredited. They are mentioned in *Mandeville's Travels*, 228, and as living in Sumatra, canibals devouring human flesh, (*Anderson, Mission to Sumatra*, 224) and their existence is no longer doubted. Their prototypes, the Issedones of Serica or the Altai, (*Herod.* i. 216., iii. 99. iv. 25.) and the Indian Padei, did not excel them in barbarity. According to Dr. Watson the "Aghorpunti or Aghori are a class of people who frequent the ghats at Benares, though they are occasionally to be found in other parts of India, and have been met with even in Assam. They are Ogres (indeed, the similitude of the word of Aghoree is noticeable), and affect a practical philosophy, which disbelieves the existence of any difference between things, and asserts that all distinctions depend upon the imagination. A cuff or a kick is as immaterial to them as a blessing.

They go about *in puris naturalibus*, with a fresh human skull in their hands (off which they had previously eaten the putrid flesh, and afterwards scraped out the brain and eyes with their fingers), into which is poured whatsoever is given them to drink and to this they pretend to be indifferent whether it be ardent spirits or milk or foul water. For food they take the first thing which offers, whether it be a putrid corpse, cooked food, or ordure. With matted hair, blood-red eyes, and body covered with filthy vermin, the Aghori is an object of terror and disgust. He looks like a wolf, ready to destroy and then devour his prey, rather than a human being. Hindoos, however, look on these wretches with veneration, and none dare to drive them from their doors. They are among the worst of the many turbulent and troublesome inhabitants of Benares and there is scarcely a crime or enormity which has not, on apparently good grounds, been laid to their charge. One of the ancient Hindoo dramatists, Bhava Bhutt, who flourished in the eighth century, in his drama of *Malati and Madhava*, has made powerful use of the Aghori in a scene in the Temple of Chamunda, where the heroine of the play is decoyed in order to be sacrificed to the dread goddess Chamunda or Kali. The disciple of 'Aghora Ghanti,' the high priest who is to perform the horribie rite, by name 'Kalapa Kundala,' is interrupted in his invocation to Chamunda by the hero Mahdava, who thus describes the scene:—

> Now wake the terrors of the place, beset
> With crowding and malignant fiends. The flames
> From funeral pyres scarce lend their sullen light,
> Clogged with their fleshly prey, to dissipate
> The fearful gloom that hems them round.
> Well be it so. I seek and must address them.
>
> * * *
>
> How the noise . . . . .
> High, shrill, and indistinct, of chattering sprites,
> Communicative fills the charnel ground:
> Strange forms like foxes flit along the sky.
> From the red hair of their lank bodies darts
> The meteor blaze or from their mouths that stretch
> From ear to ear thickset with numerous fangs,
> Or eyes, or beards, or brows, the radiance streams,
> And now I see the goblin host: each stalks
> On legs like palm-trees: a gaunt skeleton,
> Whose fleshless bones are bound by starting sinews
> And scantly cased in black and shrivelled skin,
> Like tall and withered trees by lightning scathed,
> They move, and as amidst their sapless trunks
> The mighty serpent curls—so in each mouth
> Wide yawning, lolls the vast blood-dripping tongue.
> They mark my coming, and the half-chewed morsel
> Falls to the howling wolf—and now they fly.
>
> *Act V.—Scene* 1. *H H. Wilson's Translation.*

The belief in the horrible practices of the Aghori priesthood is thus proved to have existed at a very remote period, and doubtless refers to those more ancient and revolting rites which belonged to the aboriginal superstitions of India, antecedent to the Aryan-Hindoo invasion and conquest of the country. It might be supposed that any such indecent, flagrant, and disgusting customs as are now practised by the Aghori might be summarily suppressed under the provisions of the new Penal Code of India. The worshippers of Sakti of Siva, under the terrific forms of Chamunda, Chinna-mustaka and Kali, are called Kerari, and represent the Aghora Ghunta and Kapalika. The word Chamunda, according to Ward, is from charoo, good, and mundu, a head.

The people of India; a Series of Photographic Illustrations, with Descriptive Letterpress of the Races and tribes of Hindustan. Edited by J. Forbes Watson and John William Kaye. Vols. I. and II. (Allen.) quoted in *Friend of India* 1865. (*Leyden*, *Asiatic Researches, IX.* 203.) *St. John's Indian Archipelago*, i. 20. See Aghora. Sacti; Kerari.

CHAMUNI. HIND. Tulipa stellata.

CHAMUTI. HIND. Michelia champaca.

CHAMY. CAN. Panicum miliaceum.

CHAMYARI. HIND. of Murree hills, Cerasus puddum, Prunus puddum, bird cherry.

CHALA CARNA, written Chila carna. This hindu astronomical term means the true distance of a planet from the earth, in contradistinction to its mean distance, or the Radius of the Cacsha, or Deferent. Vide Carna.

CHANAGERRY, in L. 75° 0′ E., and lat. 14° 2′ N.

CHANAGONDAM GRAMA, in L. 74° 49′ E., and L. 14° 3′ N.

CHANAKA, SANS. Cicer arietinum, *L.*

CHANAKYA. A celebrated statesman and writer on politics. He was the minister of Chandragupta. Hindu Theatre. Vol. 1. p. 31.

CHANAMBU-PARATI. Maleal, the name of a servile caste in Anjengo, employed apparently as domestic servants.—*Wilson.*

CHANAMIA. HIND. A tribe of Chandrabansi rajputs in Jonpur, and Gorukhpur.—*Wilson.*

CHANAMU. BENG. Crotalaria juncea.

CHANAN. Maleal. A man of a low tribe, whose business it is to extract the sap from the palmyra tree.—*Wilson.*

CHANANKOTTY, in L. 90° 48′ E., and. L. 26° 10′ N.

CHANAPPAN. TAM. MAL. A weaver of coarse cloth for sacks, of hempen cords, from Sana, hemp.—*Wilson.*

CHANAR. HIND. Platanus orientalis.

CHANARPISI, resembles the game of Pachisi, but is more simple, and more easily learned. For channar pisi, the board is divided into twenty-five squares. *Burton's Sindh, p.* 294.

CHANAURI. HIND. Aralia cachemirica.

CHANAWUR, in Long. 77° 15′ E. and Lat. 23° 39′ N.

CHANCH, the Chank. See Sankasura.

CHANCHALI KURA, TEL. Achyranthes alternifolia, *R.* i. 674. Digera muricata. *Mart.*

CHANCHAL-KA-PATTAR. HIND. also Chuna ka-pattar, a limestone found in the bed of the Bhimbar nollah, and in the river Chenab and Jhilam.—*Powell, Handbook.*

CHANCHING. HIND Ervumlens.

CHANCHARU. KAR. According to Wilson a tribe of savage people tenanting the forests in the south of India. Probably the Chanchawar, Chansuar or Chanchor, is intended.

CHANCIO. GUZ. A tribe inhabiting Guzerat, Kach, and Sind, and wearing a large long pointed turban; a pirate, a sea robber. —*Wilson.*

CHAN-CHOW. CHIN. Dioscorea batatas.

CHANCHY KOLI, a koli race from Junaghur in Kattywar, settled as farmers in Bombay. See Koli.

CHAND, in L. 79° 8′ E., and L. 21° 55′ N.

CHAND, the last heroic hindoo poet of India, was the author of the Pirthivi Raj Chohan Rasa, containing an account of Pirthivi rajah, a Chouhone rajput, the last hindu prince of Dehli. It has many books, of which the Kanouj Khand contains the history of Sanjogata Jye Chand who celebrated the Aswamedha sacrifice in token of assumption of empire. See Jye Chand, Pirthivi, Sanjogota.

CHANDA, in 19° 56′; 79° 19′, in E. Berar, two miles north of the Warda river. Mean height of the plain surrounding the town, is 761 feet. The level of the Godavari, 525 feet. The siege and storm of it occurred 20th May 1818. Coal has been found in its vicinity in abundance.

CHANDABUNGA, a Sonthal deity.

CHANDAGIRI RIVER. See India, p. 324.

CHANDAGUTTO. See Chandragupta. Inscriptions, p. 374, 380.

CHANDAL. HIND. Antiaris innoxia, *Blume.*

CHANDALA. H. in hinduism, any low caste man. The word is Sanscrit from chanda, furious, and ala, to go.

CHANDA. SANS., from Chandra, the moon.

CHANDAM. TEL. Pterocarpus santalinus, L.

CHANDAN. HIND. Juniperus excelsa, J. arborea, pencil cedar. The Dhupri of Kamaon, c.

CHANDANA—? See Hibiscus cannabinus.

CHANDANA. HIND. BENG. MALEAL. Sandalwood. Santalum album, *Linn.* In Telugu, Chandanapu Chettu. This is the white or true sandal, which grows in Mysore and Canara; the Rakta Chandana is the red sanders wood (Pterocarpus santalinus). The Santalum, or Syrium mytrifolium, grows in the Northern Circars, which Dr. Roxburgh considered a strongly marked variety of the Malabar sandal tree. The attractive nature of the sandal-tree is described in the sloka, "Round the stem of the *Chandana*, dwell serpents, on its top birds, on its branches monkeys, on its flowers bees,—so the riches of a good man are beneficial to all.—*Florâ Indica*, ii., 464. *Hind. Theat.*, *Vol.* II., *p.* 96.

CHANDAPOUR, in L. 85° 18′ E., L. 25° 2′ N.

CHANDAS. See Hindu, Sanskrit.

CHANDANAVATA. An ancient name of Baroda.

CHANDANA-VIBHUTI. See Tripundra.

CHANDANAYATRA, or Chandanotsava, SANS., the ceremony of offering sandal paste or other perfume to an idol.—*Wilson.*

CHANDAN, LAL. Pterocarpus santalinus.

CHANDANUM. TAM. TEL. Santalum album, *Linn.* Sandal wood.

CHANDANUR, in long. 78° 47′ E., and lat. 16° 27′ N.

CHANDA SAHIB, a relative and son-in-law of Ally Dost—who, in the early part of the 18th century, from 1732 till his death in 1752—threw himself on the support of the French under Dupleix, against the British and Mahomed Ally. He was an able leader, and when occupying Seringham, Law, anxious for his safety, treated with Monaji for his escape, but Monaji, on getting possession of Chunda Saheb, kept him prisoner for several years n the fort of Tanjore, and ultimately put him to death. He was humane, generous, and brave and an able leader.

CHAND BIBI, wife of Ali Adal Shah, king of Bejapur. She defended Ahmednuggur against the Moghuls, and clothed in armour and veiled, she took a personal share in the defence. See Chand Sultan.

CHANDEL. A rajput tribe spread through the N.W. Provinces. They have many divisions and are supposed to have come from Muhoba in Bundelcund. They claim to be of the Lunar race, and they give their name to the Chandeli or Chanderi district. There are four subdivisions of them in the Lower Doab, who suffix to their names the regal terms Rao, Rawat, Rao and Rana.—*Elliot, Wh. H. of I.*

CHANDELI. A fine cotton fabric made from Berar or Oomrawati cotton.—*Elliot.*

CHANDELLE. FR. Candles.

CHANDERBAGA. A river near Burumpooree in Nagpore.

CHANDERGUBLY-PUTNAM, in long. 78° 57′ E., and lat. 16° 9′ N.

CHANDERHAUL, in long. 90° 43′ E. and Lat. 23° 9′ N.

CHANDERNAGORE. A French town on the Hooghly with a population of 32,670. It is in L. 22° 50′ N., L. 88° 23′ E., 20 miles north of Calcutta and south of Chinsura. The level of railway is 46 ft. above the sea. It was taken on the 24th March 1757.

CHANDGUR, in Long. 76° 46′ E. and Lat. 22° 18′ N.

CHANDI. H., silver, from Chand, the moon.

CHANDI, Hind. A suicide. See Chandri.

CHANDI. The last day of the month Asoj, ushers in the hindu winter *(surd rit)*. On this day, nothing but white vestments and silver (*chandi*) ornaments are worn, in honor of the moon (*Chandra*,) who gives *his* name to the

'—— pale and common drudge
'Tween man and man."

An intercalary month is the mode followed by hindus to adjust the annual seasons, their ordinary calculations being by Lunar months, and such are called *Lunar*. On the Asoj, there is a procession of all the rajpoot chiefs to the Chougan; and on their return, a full court is held in the great hall which breaks up with "obeisance to the lamp" (*jote ka moojra*,) whose light each reverences. When the candles are lit at home on this day every rajpoot, from the prince to the owner of a "skin (*charsa*) of land," seated on a white linen cloth, should worship his tutelary divinity, and feed the priests with sugar and milk.—*Tod's History of Rajhasthan.*

CHANDICA. See Kali. Sacti.

CHANDIHARA. See Inscriptions, p. 386.

CHANDIL, in long. 86° 3′ E. and lat. 22° 59′ N.

CHANDKERA, in long. 77° 40′ E. and lat. 27° 57′ N.

CHANDKHANEE, long. 93° 32′ E. and lat. 24° 35′ N.

CHANDLO, Guz. the painted mark made by women on their forehead. The Ratna mala says, "Dressed in sixteen garments, a woman without a Chandlo does not appear beautiful."

CHANDNA. Tetranthera Roxburghii.

CHANDNI. Hind. Silver; a white cloth spread on a carpet.

CHANDNI. Hind. The practice amongst Brahmins, Charans, and others of wounding or killing themselves, in order to extort alms or payment.—*Wilson.* See Chandi.

CHANDOO, the extract of opium which is employed in opium smoking. The opium, as sent from Calcutta, is in boxes containing forty balls, each of the size of a 32lb. cannon shot. These balls are enclosed in a husk of compressed poppy leaves, and contain a certain quantity of moist opium inside, but which, in this state, is unfit for smoking, for which it is prepared by four processes, in the following manner: About three or four o'clock in the morning, fires are lighted, and, as the *first* process, a ball is divided into two equal halves by one man, who scoops out, with his fingers, the soft part inside, and throws it into an earthen dish; frequently, during the operation, moistening and washing his hands in another vessel, the water of which is carefully preserved, into which, also, is thrown the hardened poppy leaf-husks, when all the removable opium is obtained.

In the *second* operation, the husks are boiled until all their adhering opium is dissolved, strained through a double filter of cloth and China paper. The strained fluids are then mixed with the opium that was scooped out in the first operation, and boiled down in a large iron pot to the consistence of treacle. The refuse is dried and sold to Chinese, who adulterate good opium with it, and the filter paper is used by the Chinese as an external application, in affections of the lower bowels.

In the *third* operation the dissolved treacle-like mass is seethed over a charcoal fire, strong and steady, but not fierce temperature, during which it is worked, spread out, and again and again worked up to expel the water but prevent it burning. When brought to the proper consistence, it is divided into half a dozen lots, each of which is spread like a plaster on a nearly flat iron pot, to the depth of from half to three quarters of an inch, and then scored in all directions to allow the equal application of heat. One pot after another is then placed over the fire, turned rapidly round, then reversed, so as to expose the opium itself to the full heat of the red fire. This is repeated three times, the time and proper heat being judged by the workman from the aroma and colour. In this part of the process the greatest delicacy is demanded, for a little more or less fire would destroy the morning's work or 300 or more dollars worth of opium. The head workmen in Singapore are men who have learned their trade in China, and from their great experience are paid very high wages.

The *fourth* operation consists in re-dissolving this fired opium in a large quantity of water, and boiling it in copper vessels till it be reduced to the consistence of the Chandoo of the shops, the degree of tenacity being the index of its complete preparation, which is judged of by drawing it out by slips of bamboo. The quantity of chandoo obtained from the soft opium is about 75 per cent. But, from the gross opium, that is, including the opium and the bark, the proportion is not more than from 50 to 54 per cent.

In this lengthened seething process, the chandoo or extract becomes less irritating and more soporific, the vegetable matter, the resin and oil, the extractive matter and a little being all thrown out in the refuse matter. The quantity of Chandu obtained from the soft opium is about 75 per cent.; but from the gross opium, that is, including the opium and the husk, the proportion is not more than from 50 to 54 per cent. *J. I. A., No.* 1. *Jany.* 1848. *Dr. Little; Cameron, p.* 215, 216.

CHANDOO. See Kol.

CHANDOOR, two towns in India, one in L. 74° 17′ E. and L. 20° 21′ N. The other in L. 87° 3′ E. and L. 24° 58′ N.

CHANDOS, a caste of toddy drawers in Ceylon.

CHANDRA-PODA. Tel. Argyreia speeiosa. *Swt.*

CHANDPUR, the name of many towns in India.

CHANDPUR Sakumbari of Tantia, are described by Col. Tod as desperate robbers. He saw this place fired and levelled in 1807, when the noted Kureem, Pindaree, was made prisoner by Sindia. It afterwards cost some British blood in 1817. Though now desolate, the walls of this fortress attest its antiquity, and it is a work that could not now be undertaken. The remains of it bring to mind those of Volterra or Cortana, and other ancient cities of Tuscany: enormous squared masses of stone, without any cement. *Tod's Rajasthan, Vol. I., p.* 100.

CHANDRA. Tel. Acacia sundra; Machilus odoratissimus? and Tetranthera Roxburghii. Beng. Ophioxylon serpentinum. *Linn.*

CHANDRA, in hindu mythology, the moon. Moor tells us it is usually a male deity. sometimes, however, feminine, Chandri, and in such character, is more commonly applied to Parvati or Devi, the consort or Sacti of Siva than to any other goddess. Lakshmi Devi, or simply Devi as the consort of Vishnu is often called, occasionally coalesces with Parvati; and both, as well as Saraswati, spouse of Brahma, may be identified with the moon or Luna. Thus, in hindu mythology, the sun and moon, being sometimes regarded as male deities, the three principal female divinities hold a similar union with their respective solar lords. According to Coleman, Chandra or Soma, the Moon is described as the male, and is painted young, beautiful, and of dazzling fairness, two-armed, and having in his hands a club and a lotus. He is usually riding on or in a cart drawn by an antelope. Although Soma or Chandra is thus described as a male, the moon is occasionally represented as Chandri, a female, in which character being visited by Surya, she produced a numerous family called Pulinda. In the third volume of the *Asiatic Researches*, this sexual change is accounted for by Colonel Wilford, who says, when the moon is in opposition to the sun, it is the god Chandra, but when in conjunction with it, the goddess Chandri, who is in that state feigned to have produced the Pulinda." The moon was also worshipped as male and female, Lunus and Luna, by the Egyptians, the men sacrificing to it as Luna, the women as Lunus; and each sex, on these occasions, assuming the dress of the other. The hindus have in their zodiac twenty-seven lunar mansions, called Nakshatra, or daily positions of the moon; and as, to perfect the revolutions, some odd hours are required, they have added another not included in the regular chart. These twenty-eight diurnal mansions form the zodiac having been invented by Daksha, are personified as the daughters of the deity, and are the mythological wives of Chandra. In the chart of the lunar mansions they are curiously represented as a horse's head, a yoni, razor, an arrow, a wheel, a bedstead, a house, &c.—*Cole. Myth. Hind. p.* 131. The *Dii Majores* of the rajpoot are the same in number and title as amongst the Greeks and Romans, being the deities who figuratively preside over the planetary system. Their grades of bliss are therefore in unison with the eccentricity of orbit of the planet named. On this account Chandra or Indu, the moon, being a mere satellite of Ella, the earth, though probably originating the name of the *Indu* race, is inferior in the scale of blissful abodes to that of his son Budha or Mercury, whose heliacal appearance gave him importance even with the sons of Vaiva, the sun. From the poetic seers of the martial races we learn that there are two distinct places of reward; the one essentially spiritual, the other of a material nature. The bard inculcates that the warrior who falls in battle in the fulfilment of his duty, "who abandons life through the wave of steel," will now know no "second birth," but that the unconfined spark *(jote)* will reunite to the parent orb." The doctrine of transmigration through a variety of hideous forms, may be considered as a series of purgatories. The Greeks and Celts worshipped Apollo under the title of Carneios, which, according to Theocritus, is derived from Carnos, who having prophesied the misfortunes to the Heraclides in their inroads on the Peloponnesus one of them, called Hippotes, slew him. One of the titles of the Hindu Apollo is Carna, 'the radiant;' from *carna*, 'a ray:' and when he led the remains of the *Hericúlá* in company with Baldeva (*the god of strength*), and Yudishtra, after the great international war, into the Peloponnesus of Saurashtra, they were attacked by the aboriginal Bhil, one of whom slew the divine Carna with an arrow. The Bhil claim to be *Hyvansa*, or of the race of *Hya*, whose chief seat was at Maheswar on the Nerbudda. The assassin of Carna would consequently be Hiputa, or *descendant* of *Hya*. In Hindu astronomy Chandra is the most common name of the moon. Chandra panchanga, is the Luni solar Kalendar.—*Mocr Tod. Coleman.* See Saraswati; Surya.

CHANDRA, a son of Atri, and father of Budha by Tara. Tara was the wife of his teacher Vrihaspati.

CHANDRA RIVER, unites with the Bhaga and is then styled the Chenab. In the parts of Ladak, through which the Chandra and Bhaga rivers run, their banks are Bhot, up to their junction; after that, hindu. See Ladak

CHANDRA BHUNDA, a tribe employed in the Sunderbuns, in the manufacture of salt. See Sunderbuns.

CHANDRA CHETTU. Acacia sundra, *D. C.*

CHANDRA-DATTA, a name of a prince mentioned in an inscription from the Kasariah mound about A. D. 800. See Inscriptions p. 375.

CHANDRA DEVA, name mentioned in a copper plate from Fyzabad of the second century B C. See Inscriptions p. 391.

CHANDRAGANA. See Inscriptions p. 376.

CHANDRAGUPTA, the Sandracottus of the Greeks, the founder of the Mauryan dynasty of Magadha, He was the illegitimate son of the last Nanda by the beautiful, but low caste Mura, from whom he obtained the designation of *Maurya*. In the Mudra Rakshasa, a Sanskrit drama detailing his elevation, Chandra Gupta is, however, frequently named Vrishala, a term said to be equivalent to *Sudra*; and as Nanda himself was the son of a Sudra woman; there can be little doubt that the celebrated *Maurya* family were of Sudra extraction. In the early part of his career, Chandra Gupta led a wandering life in the Punjab (See Turnour, Introduction to the Mahawanso, p. xli., quoting the Tika or Commentary), and was most probably engaged with his fellow-countrymen in opposing Alexander. His chief adviser, the brahmin Chanakya, was a native of Takshasila or Taxila, the capital of the Western Panjab; and it was in that country that Chandra Gupta first established himself by the complete expulsion of the Greek troops left by Alexander (*Justin.* xv. 4.—" *Auctor libertatis Sandrocottus fuerat.*") It would appear that the Greek colonists in the Panjab had first been placed under Philip, while the civil administration of the country remained in the hands of its native princes, Taxiles and Porus. Afterwards, on the murder of Philip by the mercenary soldiers, Alexander (*Anabasis* vi, 2, vii) directed *Eudemos* and *Taxiles* to govern the country until he should send another deputy. It is probable, however, that they continued to retain the charge; for after Alexander's death in B. C. 323, *Eudemos*, contrived by the treacherous assassination of king Porus by his general Eumenes, to make himself master of the country (*Diodorus* xix, 5.) Some few years later, in B. C. 317, he marched to the assistance of Eumenes, with 3,000 infantry and 5,000 cavalry, and no less than 120 elephants. With this force he performed good service at the battle of Gabiene. But his continued absence gave the Indians an opportunity not to be neglected; and their liberty was fully asserted by the expulsion of the Greek troops and the slaughter of their chiefs,—(*Justin.* xv. 4—"*Præfactos ejus occiderat*"; again "*Molienti deinde bellum adversus præfactos Alexandri.*") Chandra Gupta was present when Porus was murdered. He afterwards became the leader of the national movement, which ended in his own elevation to the sovereignty of the Panjab. Justin attributes his success to the assistance of *banditti* (Justin xv. 4.—" *Contractis [illegible]onibus Indos ad novitatem regni solicitr* [illegible] But in this, Colonel Cunningham thir[illegible] he has been misled by a very natural mistake; for the Aratta, who were the dominant people of the Eastern Panjab, are never mentioned in the Mahabharata without being called robbers, (*Lassen, Pentapot Indica.*—" *Aratti profecto latrones,*" and " *Bahici latrones.*") The Sanskrit name is Arashtra, the " kingless," which is preserved in the Adraistæ of Arrian, who places them on the Ravi. They were the republican defenders of Sangala, or Sakala, a fact which points to their Sanskrit name of *Arashtra*, or " kingless." But though their power was then confined to the eastern Panjab, the people themselves had once spread over the whole country—" *Ubi fluvii illi quivi* * * * *ibi sedes sunt Arattorum.*"—*Lassen, Pentapot Indica, from the Mahabharat.* They were known by the several names of *Bahika*, *Jarttika*, and *Takka*; of which the last would appear to have been their true appellation; for their old capital of *Taxilà* or *Takka-sila* was known to the Greeks of Alexander; and the people themselves still exist in considerable numbers in the Panjab hills. The *ancient* extent of their power is proved by the *present* prevalence of their alphabetical characters, which under the name of Takri, or *Takni*, are now used by all the hindus of Kashmir and the northern mountains, from Simla and Sabathu to Kabul and Bamian. On these grounds, Major Cunningham identifies the banditti of Justin, with the *Takka*, or original inhabitants of the Punjab, and assigns to them the honour of delivering their native land from the thraldom of a foreign yoke. This event occurred most probably about 316 B. C., or shortly after the march of Eudemos to the assistance of Eumenes. It was followed immediately by the conquest of Gangetic India, Justin xv. 4, and in 316 B. C, the rule of Chandra Gupta was acknowledged over the whole northern peninsula, from the Indus to the mouth of the Ganges. The authorities differ as to the length of Chandra Gupta's reign, which some make thirty-four years and others only twenty-four. The Mahawanso gives thirty-four years, the Dipawanso and the Vayu Purana give only twenty-four years. This difference may, perhaps, have originated in two distinct reckonings of the date of his accession, the one party counting from the death of Nanda Mahapadma, in B. C. 325, and the other party from the conquest of India, in B. C. 315. Some assumption of this kind is clearly necessary to reconcile the different authorities, unless, indeed, we take the only alternative of adopting the one and of rejecting the other. At this period, the capital of India was *Pataliputra*, or Palibothra, which was situated on the *Ganges*, at the junction of the *Erranaboas* or *Alaos* River. The former name has already been identified with the Sanskrit *Hiranyabahu*, an epithet which has been applied both to the *Gandak* and to the *Son*. But the latter name can only refer to the *Hi-le-an* of the Chinese travellers, which was to the north of the Ganges, and was there undoubtedly the Gandak. Indeed, this river still joins the Ganges immediately opposite to *Patna*—that is, " the city," or metropolis, as its proper name (Patna) implies; the junction of the Son is some nine or ten miles above Patna. But as there is good reason for believing that the Son once joined the Ganges at Bakipur, or Bankipur, immediately above Patna, it is quite possible that the Erranaboas may have been intended for the Son, and the *Alaos* for the Gandak. According to Megasthenes, Palibothra was eighty *stadia*, or nearly nine miles in length; and fifteen *stadia*, or one mile and two-thirds in breadth, It was surrounded with a deep ditch, and was enclosed by lofty wooden walls, pierced with loopholes for the discharge of arrows. (*Arrian, Indica x. and Strabo xv., both quoting Megasthenes.*) Chevalier Bunsen also mentions (iii. 543-4) that Chandragupta was present when Porus was murdered. He says he dethroned and murdered the younger brother of Nanda king of Palibothra, or Patalipura, B. C. 312, and founded the Maurya dynasty, whose reigns gave a lustre to the East. Chandragupta's kingdom extended over the Persians, i. e., the Easterns, also the Peninsula of Guzerat, and north to the Indus, and south to the mouths of the Ganges and Telingana, the whole of Aryavarta. his forces consisted of 600,000 Infantry, 30,000 cavalry, and 900 elephants. Subsequently, towards the close of the fourth century before our era, when Alexander's successors were at peace with each other, the great Seleucus turned his arms towards the East, with the intention of recovering the Indian provinces of Alexander, but Chandragupta formed an alliance with Seleucus, whose daughter he received in marriage. He also received at his court of Palibrothra, Megasthenes, as an ambassador, and in return, Chandragupta sent presents with an ambassador to Seleucus to Babylon. The hindu drama of Mudra Rakshasha records the memorable political event of his usurpation of Palibothra. His name occurs in an inscription at Sanchi, also on one at Oojein. Tod says he was of the Takshak race. He died B. C. 289. His successor died B. C. 261, and Asoka, the great buddhist sovereign, the grandson of Chandragupta, then succeeded. Asoka had murdered his brother, whose son converted him to buddhism, was crowned B. C. $\frac{259}{258}$, at Patalipura, in the third year of his reign. Asoka engraved on rocks numerous inscriptions inculcating buddhist doctrines, erected, it is said 84,000 Chaitya, many of which still remain. Asoka reigned 37 years, and immediately afterwards B. C. 225, the partition and downfall of the kingdom took place. Ch. Bunsen states the army of Asoka at the same numbers as those of Chandraguputa.—*Bhilsa Topes, Cunningham, p. from* 87 *to* 91. *Bunsen Egypt.* iii. 544. *Tod Rajasthan. Cal. Review.* See Arases, Aratta, Asoka, Bhattya, Buddha, Inscriptions 373, 374, 375, 378, 383, 387, 434, Junagurh, Magadha, Megasthenes, Scylax. Shaman, Vindusara.

CHANDRAGUPTA. A Chouhon prince of Ajmir, grandson of Manikya Rai, who lived A.D. 695. His descendant, Pritha Rai, was the last hindu prince who reigned at Indraprestha or Delhi.

CHANDRA KANTHA. Tel. Mirabilis jalapa, *L.*—*Rheede.* x. 75.

CHANDRAOTI, 14 miles from Abu, a ruined city on the western face of the Aravalli mountains of Rajpootana. See Chandraota.

CHANDRA PALA, the name of a prince mentioned on an inscription at Oomya, A. D. 1439. See Inscriptions, p. 392.

CHANDRAPODA, Tel. Argyreia speciosa, *Swt.*

CHANDRA SENA, a ruler at Oojein about A. D. 50, who followed after Vikramaditya about 100 years. He restored the hindu kingdom to its entirety. See Kabul, p. 438.

CHANDRASENI KAYASTHA, S. A caste of writers in Poona, who claim to be descended from a raja named Chandrasena, and therefore claim to be regarded in some degree as Kshatriya, and to be entitled to perform the ceremonies of the Vedas; a claim not recognized by the brahmins. There are two divisions: the Patani Prabhu, and the Dawani Prabhu. The former are found at Bombay and other towns, the latter at Goa. It is this caste whom the British call Purvoo. —*Wilson.*

CHANDRASECHA, the name of a mountain in the N. W. Himalaya. See Kali.

CHANDRA VANSA, or Indovansa, lunar race, a race that reigned in Antarveda and Kasi, but afterwards in Magadha (Behar) and Indraprashtha (Delhi). In this dynasty are included the kings of Kasi (Benares), the Line of Puru and the Line of Yadu.

Atri........Muni.
Soma.......Lunus, the Moon.
Buddh......Mercury, married Ila, daughter of the Sun.
Alias or Pururavas.
Ayu........Kings of Kasi, descended from him.
Nahusha....Devanahusha, Dionysos, Bacchus (Wd.)
Yayati......Father of Puru and Yadu.

According to Tod, the following are synchronisms of the Solar and Lunar Races:

Buddha of the Lunar Race married Ila, the sister of Ikshwaku, s. l. Tod.

Harischandra, s. l. contemporary of Parasurama of lunar line.

Sagara, cot. of Taljanga, of Parasurama.

Ambarisha, cot. of Gadhi, founded Kanouj.

In the line of Pura occurs Hastin, who built Hastinapur, and Vichitravirya.

Indu, Som, Chandra, in Sanscrit mean the moon: hence the lunar race is termed the Chandra vansa, or Indu vansa, or Soma-vansa. Tod.—*Thomas' Prinsep's Indian Antiquities.* See Magadha, Mysore, Rama, Pandu, Surya.

CHANDRAOTA. An ancient town at the foot of the Aravalli mountains. It was anciently the capital of the Pramar rajahs. Its ruins are situated about twelve miles from the foot of the Aboo mountain, on the banks of the Bunass, and in a fine well wooded country. When Ahmed, grandson of Jaka, styled Wajeh-ul-mulk, resolved to found Ahmedabad, he chose a site occupied by a community of the Bhil race, whose predatory habits were the terror of the neighbourhood, and resolved to create his new capital by means of the city of Chandraota, the materials of which he used and compelled all its people to follow the spoils of their temples and dwellings to the uninteresting, unhealthy low flat on the banks of the Sabarmatty.—*Tod's Travels, p.* 134. See Kalmuck.

CHANDERAWUT, descendants of Chandra, one of the most powerful vassal clans of Mewar. Rampoora (Bhanpoora) was their residence, yielding a revenue of five lacs (£110,000), held on the tenure of service from an original grant from rana Juggut Sing to his nephew Madhu Sing. Chandra obtained an appanage on the Chumbul.—*Tod's Rajasthan, Vol.* I, *p.* 261.

CHANDRAYANA, a hindu penance which consists in the sinner or devotee "eating for a whole month no more than thrice eighty mouthfuls of wild grains, as he happens to meet with them, keeping his organs in subjection." The reward of this is attaining the same abode as Chandra, the regent of the Moon: and it absolves a brahmin from the sin of slaughtering a thousand small animals which have bones, or of boneless animals, enough to fill a cart; and it is also the common penance for killing a Sudra, a hindu of the fourth or servile class.—*Coleman,* p. 92.

CHANDRIE. Hind. Calonyction Roxburghii.

CHANDRIKA, a name of Lakshmi. See Mahadevi; Pali.

CHANDRIKI-KA-JHAR. Ophioxylon species.

CHANDROWLEE. in long. 83° 6′ E., and lat. 25° 27′ N.

CHAND SULTAN or Bibi Chand, daughter of the king of Ahmednuggur, was married in 1564 to Ali Adl Shah. On her husband's death, she returned to Ahmednuggur, and was the regent of her nephew, Bahadur Nizam Shah. While regent, she opposed Akbar's armies, at first with success, throughout that part of the Dekhan. She is often yet mentioned in tradition. In the dissensions which arose she was put to death by her own people, though Shahab-ud-Din, the author of the history of Ahmednuggur, states she destroyed herself.

CHANDUYA, Singhalese, the moon.

CHANEL. Rus. Hops.

CHANG. A deity of the Assamese, replaced in 1665, by hinduism

CHANG. Hind. Hordeum hexastichum.

CHANG. Hind. Salix alba.

CHANG. A disagreeable spirit, or rather beer, used in Spiti.

CHANGTHANI. Wool.

CHANG. Chin. Is a measure of 10 Che or

Chinese cubits of about 14 inches each.—*Staunton's Narrative, p.* 43, 73.

CHANG. BURM. A fortified city.

CHANGA DEVA. The equipage of this hindu devotee was a tiger, but other holy men have adopted the tiger as a vehicle. A pious personage of this description was reported to have visited Sri-ranga-patan, (the city of Sri Ranga, or Mahadeva, commonly Seringapatam), about the year 1797, and, although a hindu, to have been hospitably invited by the late Tippoo sultan. He was attended by ten disciples, and declined the royal civilities, saying, a tree was sufficient shelter for him. Changa Deva was of that class which Pandits call Yug-saddan or Yug-brashat, or Yug Vyasa, who, by extraordinarily pious pains, obtain miraculous longevity: they prolong their existence, it is hyperbolically said, to some hundreds of years. —*Coleman, p.* 426.

CHANGA GUDDA. TEL. Sanseviera zeylanica.

CHANGAL. HIND. ? Champac. HIND. ? A moderate sized tree of Akyab, not plentiful. Wood used for boats.—*Cal. Cat. Ex.* 1862.

CHANGALI GADDI, TEL. Panicum commutatum, *Nees*. P. ciliare, *R.* i., 290.

CHANGALI KOSHTU, TEL. Costus, *Sp.* C. Arabicus, *Heyne*, 129.

CHANG-CHEN-MO. This place gives its name to a route of about 16 marches between Ladak and Eastern Turkistan, said to be the easiest from India to Upper Asia, much easier than the more westerly Kara Korum route traversed by Schlagintweit and Mr. Johnson. The heights vary from 19,000 to 21,000 feet, but the mountains are generally rounded, and fuel and grass are abundant save at one stage. Gumah is equi-distant between Ilchi and Yarkund, and the Kara Korum route meets this route at Shadula.

CHANGEABLE ROSE. Hibiscus mutabilis.

CHANGEZ KHAN, or Jenghiz Khan. Temuchin, afterwards known as Chinghiz, was born of a Mongol tribe on the banks of the Oxon in 1162. He conquered and expelled Mahomed the Kharasmian, and defeated her son Jalaluddin, on the banks of the Indus. Aung khan, of the Keraite Mongols, celebrated in Europe under the name of Prester John, was a contemporary of *Chanjez Khan*, whom, at the instigation of jealous enemies, he attempted but failed to destroy. (*Elliot, p.* 498.) As the result of Temuchin's successes against the nations of Tartary, he was saluted in 1206 by the diet of his nation as Chinghez khan. According to Quatremere, Chinghez did not use the higher appellation of Kaan (or Qaan), which was adopted by his son Okkodai and his successors as their distinctive title, identical with Khaqan the Xaganos of the Byzantine historians. Properly a distinction should therefore be preserved between Khan, the ordinary title of Tartar chiefs, and whichhas since spread to Persian gentlemen and in India become a common affix to the name of Mahomedans of all classes, and Qaan, as the peculiar title of the supreme chief of the Mongols. The Mongol princes of the subordinate empires of Chagatai, Persia, and Kipchak, were entitled only to the former affix, though the other is sometimes applied to them in adulation. The conquest of China was commenced by Chinghez, although it was not completed for several generations. Already, in 1205, he had invaded Tangut, a kingdom occupying the extreme north-west of China, and extending beyond Chinese limits in the same direction, held by a dynesty of Tibetan race, which was or had been vassal to the Kin. This invasion was repeated in succeeding years; and in 1211 his attacks extended to the empire of the Kin itself. In 1214 he ravaged their provinces to the Yellow River, and in the following year took Chingtu or Peking. In 1219 he turned his arms against Western Asia, and conquered all the countries between the Bolor and the Caspian and southward to the Indus, whilst his generals penetrated to Russia, Armenia, and Georgia, but a lieutenant, whom he had left behind him in the East, continued to prosecute the subjection of Northern China. Chinghez himself, on his return from his western conquests, renewed his attack on Tangut, and died in that enterprise 18th August 1227. Okkodai, his son and successor followed up the subjugation of China, extinguished the Kin finally in 1234, and consolidated with his empire all the provinces north of the Great Kiang. After establishing his power over that part of China, Okkodai raised a vast army and set it in motion towards the west. One portion was directed against Armenia, Georgia, and Asia Minor, whilst another great host, under Batu, the nephew of the great Khan, conquered the countries north of Caucasus, overran Russia, making it tributary, and still continued to carry fire and slaughter westward. One great detachment, under a lieutenant of Batu entered Poland, burned Cracow, found Breslaw in ashes and abandoned by its people, and defeated with great slaughter at Wahlstadt near Lignitz (April 12th, 1241) the troops of Poland, Moravia, and Silesia, who had gathered under Duke Henry of the latter province to make head against this astounding flood of heathen. Batu himself, with the main body of his army, was ravaging Hungary. The king had been very slack in his preparations, and when eventually, he made a stand against the enemy, his army was defeated with great loss, and he escaped with difficulty. Pesth was now taken and burnt, and all its people put to the sword. The rumours of the Tartars and their frightful devastations had scattered fear through Europe, which the defeat at Lignitz raised to a climax. Indeed, weak and disunited Christendom seemed to lie at the foot of the barbarians. The Pope, to be sure, proclaimed a crusade, and wrote circular letters, but the enmity between him and the Emperor Frederic II, was allowed to prevent any co-operation, and neither of them responded by any thing better than words to the earnest calls for help which came from the king of Hungary. No human aid merited thanks when Europe was relieved by hearing that the Tartar host had suddenly retreated eastward. The great Khan, Okkodai, was dead in the depths of Asia, and a courier had come to recall the army from Europe. In 1255 a new wave of conquest rolled westward from Mongolia, this time directed against the Ismaelians or "Assassins" on the south of the Caspian, and then successively against the Khalifs of Baghdad and Syria. The conclusion of this expedition under Hulagu may be considered to mark the climax of the Mongol power. Mangu Khan, the emperor then reigning, and who died on a campaign in China in 1259, was the last who exercised a sovereignty so nearly universal. His successor, Kublai, extended indeed largely the frontiers of the Mongol power in China, which he brought entirely under the yoke, besides gaining conquests rather nominal than real on its southern and south-eastern borders, but he ruled effectively only in the eastern regions of the great empire, which had now broken up into four,—(1) The immediate Empire of the Great Khan, seated eventually at Keanbalik or Peking, embraced China, Corea, Mongolia, Manchuria, and Tibet, and claims at least over Tunking and countries on the Ava frontier, (2) the Chagatai Khanate, or Middle Empire of the Tartars, with its capital at Almalik included the modern Dsungaria, part of Chinese Turkestan, Transoxiana, and Afghanistan ; (3 the Empire of Kipchak, or the Northern Tartars, founded on the conquests of Batu, and with its chief seat at Sarai on the Wolga, covered a large part of Russia, the country north of Caucasus, Khwarizm, and a part of the modern Siberia ; (4) Persia, with its capital eventually at Tabriz, embraced Georgia, Armenia, Azerbaijan and part of Asia Minor, all Persia, Arabian Irak, and Khorasan.

The conquests of Changez Khan, and of his successor Okkedai Khan, in the first half of the century, brought into China a vast influx of Onigoor and Toongani immigrants. Atabeg, also Atabak, in ancient Persia, was an officer or prince, ruler of a province. Luristan seems to have been the latest territory so ruled, until Changhez Khan, with his destructive hordes of Tartar and Moghul, overwhelmed the land, spreading fire, slaughter, and pillage in every quarter. Ali Khan, or Hoolakoo Khan, the grandson of Changhez Khan, completed the conquest of Persia, and afterwards subdued and took Bagdad, putting to death the last of the once powerful Khalifa. He also employed his force in extirpating that singular and dangerous set of desperadoes, the Assassins, well-known in the annals of the Crusades.—*Yule's Cathay* I, cxviii. See Luristan.

CHANGHAT. See Jews.

CHANG-KIA-KEW. This pass, from the great wall of China, is in the province of Pe-che-lee, about a hundred miles to the westward of that of Kou-pe-keou, by which the embassy of Lord Macartney crossed the wall in 1793, and Sir George Staunton later.—*Staunton's Narrative*, p. 22.

CHANGLA. TEL. Aucklandia costus, *Falconer.*

CHANGLO, a Tibetan race, a branch of the Lhopa of Bootan. The Changlo dialect has a considerable amount of glossarial peculiarity with Tibetan, but in other respects it is entirely Tibetan, softened and slightly changed in phonology. The Changlo dialect is spoken along that portion of the northern frontier of the valley which extends from the Binji Doar to the confines of the Kuriapera Doar, or from about 90° to the 92° of East Long. Neither its northern limit nor the numbers speaking it have been ascertained. The inhabitants of this tract occupy the lesser elevation of the southern Himalaya range, and are generally speaking agricultural. Their physical appearance exhibits a few shades of distinction noticeable between them and the tribes of the Sub-Himalaya. They are smaller, less muscular and the hue of their skin possesses a deep isabelline tint. From the latter circumstance, probably, they derive their appellation, the term Changlo meaning black.—*Journal of the Indian Archipelago, Nos. IV. and V., April and May* 1853, p. 192. See India, p. 338.

CHANGMA. HIND. Populus balsamifera, P. nigra, ; also Salix alba.

CHANG-MAI, a mode of spelling Zimmay of the Laos. It is also spelled Xieng-ma. It is on the Menam river, between 19° and 22° N. L. See Laos.

CHANGO, a tribe of Hungrung Tartars occupying 378 square miles. See Kunawer.

CHANGPA, a semi-nomad tribe near th Pangong Tsi pass. They dwell in their grazing grounds under huts (galkol) made of the yak's hair. The people there call themselves Bot.

CHANG-THANG. Tib. On the northern plains to the north of Ladak, supposed to be the Chatæ Scythæ of Ptolemy.—*A. Cunn.* See Ladak. Shawl-goat.

CHANI. Tel. Adenanthera aculeata. *Roxb.*

CHANJAN WALE. Hind. Asparagus Punjabensis.

CHANK. Hind. A harvest ceremony in several parts of northern India, differing in each province. After the heap of grain on the threshing ground has been raised a foot high, a man, in silence, standing with his face to the north, a winnowing basket in his right hand, his left hand being full of grain, commencing from the south, goes round from east to west, and again to the south, pressing his basket against the bottom of the heap. This is repeated, changing hands, and when complete, he joins his hands, bows to the heap and supplicates in a few words, either Parmeshar or Anna Deota, as,·

"Ann Deota ji,
Sahes goona hajiye."—*Elliot.*

CHANK, also Chanka, Hind. a stamp fixed on a stack or heap of grain. It is also called chapa, from chapna to print. It is the system of making an article over to the supreme being, common in Africa and the Archipelago, under the term "Taboo" and it is similar to the "Ch'hutoor" of the hindu. The chank, an engraved piece of wood, is impressed on a cake of earth. It has, as a usual motto, Akibat ba khair bad, "may the end be prosperous," or Eman ki salamati, "safety on your honour," implying confidence on the honour of the persons intrusted.—*Elliot.*

CHANK. See Chank shells.

CHANKEE. Malay. Cloves. Caryophyllus aromaticus.

CHANK SHELLS.

Sukk,	Duk.	Shenku,	Sans.
Konk,	Eng.	Sankha,	Tam.
Chonch,	„	Sangu,	„
Senkham,	Sans.	Senkham,	Tel.

These shells are species of the genus Turbinella. Common Chank shells are fished up by divers in the Gulf of Manaar, on the coast opposite Jaffnapatam in Ceylon, in about two fathoms water, and at Travancore, Tuticoreen, and other places. Large fossil beds of chanks have also been found. They form a considerable article of trade in India, as they are in extensive demand all over the country. They are sawn into narrow rings or bracelets, and are worn as ornaments, for the arms, legs, fingers, &c. by the hindoo women; many of them are also buried with the bodies of opulent and distinguished persons. Those which, from being taken with the mollusc, are called green chanks, are most in demand. The white chank, which is the dead shell thrown upon the beach by strong tides, having lost its gloss and consistency, is not worth the freight up to Calcutta. The value of the green chank depends upon its size. A chank opening to the right, called in Calcutta the right-handed chank, is so highly prized, as sometimes to sell for 400 or 500 or even 1,000 Rupees. The Jungum religious mendicants and those of the Veeranroosty caste, blow them as horns. The commercial returns show an exportation from Madras of ten to twenty-four lacs of these shells in one year.

	No.	Value.
1852—1853	15,15,495	Rs. 54,780
1853—1854	24,60,727	„ 104,481
1854—1855	10,84,575	„ 56,165
1855—1856	Not given, supposed 7,50,000	26,171
Total.	59,10,777	Rs. 2,41,597

They are classed as Patty and Pajel, or short and pointed headed, and Wallampory, or right-hand chanks. Bertolacci mentions, as a peculiarity observed by the Ceylon fishermen, that all shells found to the northward of a line drawn from a point about midway from Manaar to the opposite coast at India are of he kind called "patty," and are distinguished by a short flat head, and all those found to he southward of that line are of the kind called "pajel," and are known from having a longer and more pointed head than the former. Nor is there even an instance of deviation from this singular law of nature. The "Wallampory or 'right-hand chanks' are found of both kinds." Chanks are alluded to in Cosmos Indicopleustes, and by Abu Zaid in "Voyages Arabes," showing that so early as the 6th century this shell was fished for. The fishery until a few years ago continued a Government royalty. They are made into rings, beads, armlets, bracelets, and the Sankasari of Dacca are famed for their skill in working with the chank or sank. The pictures and figures of the hindu god Vishnu, always represent him with a chank shell in one hand and a discus or chakra in the other. In ancient times, each Indian warrior used the chank as a trumpet.—*Rohde MS. Ainslie Mat. Med. p.* 143. *Tennent's Sketches of the Nat. Hist. of Ceylon, p.* 372. See Sankasura. Vishnu.

CHANNA. Hind. The pulse Cicer arietinum, called Bengal gram, gram, and chick pea. There are varieties of it, or other pulses receive similar names. Chenna siya is black gram, and Chenna Kabuli, Kabul, or white gram. Its principal use is to feed horses and cattle, but the people of N. India often eat it. An acid forms on the leaf of the channa, a mixture of oxalic and acetic acids, which is used in chemical processes and in the preparation of nitric and muriatic acids. Cloths spread on the plant become moistened by the dew, and absorb the acid.—*Elliot.*

CHANNAN, also Chanuni, on the Chenab &c. Populus alba, the white poplar.

CHANNEE. TAM.? A tree of Travancore wood of a brown colour, used for oil-mills, &c —*Col. Frith.*

CHANNI. HIND. Daphne oleoides.

CHANNY MARAM. TAM.? A tree of Travancore: wood of a brown colour, used for building common houses.—*Col. Frith.*

CHANNY VENGAH. TAM.? Travancore; wood of light yellow colour, one to six feet in circumference, used in house building.—*Colonel Frith.*

CHANOLA-TURAI. HIND. Luffa, *Species.*

CHANOO. BENG. Apium involucratum, *Roxb.*

CHANUN. HIND. Populus ciliata.

CHANUNI. HIND. Populus alba; the Ban.

CHANOS ARGENTEUS. *Bloch.* The milk fish.

CHAN-PA, the Tibetan name of Great Tibet. It means snow-land. See Lhassa.

CHANSCHENA. MALEAL. Bauhinia tomentosa.

CHANTABURI, one of the ports of Siam, probably the second in commercial importance. It is at the mouth of a river, which, though not long in its course, fertilizes a considerable district by its inundations during the rainy season. The rocks at the entrance of Chantaburi present all the appearance of a colossal lion couchant.—*Bowring's Siam, Vol. I, p.* 25.

CHANTABURI, which means the nutmeg country, is a range of mountains east of Siam whose defiles are held by the Xong or Ching, who are said to be an offshoot from the Karen. The wax sold by the Xong is the produce of wild bees of gigantic size, which build their cells on the top branches of trees at the height of 150 feet.

CHAN-YO OR CHAN-YU. CHIN. Dioscorea batatas.

CHANZ, a pass leading from Kashmir to Tibet. It is also called Sang-i-Safed.

CHAODA-RATNI, in hindu mythology, fourteen precious articles, called gems, obtained by churning the ocean. The second incarnation of Vishnu was in the form of a tortoise, hence known as the Kurma avatar. The principal incident in it was the churning of the ocean, with the huge mountain Mandara, as a Churn-rod, using the great serpent Sesha as a churning rope, while Vishnu, in the form of a tortoise, sustained the vast load. The produce was the fourteen precious articles (or gems), the chaoda-ratni, or more classically the chatur desa ratna, one of which was medicine, another poison. See Vishnu.

CHAOLMOOGRA, also Petarcura, HIND. Chaulmoogra odorata.

CHAO-ME-DO, also Chao-mo-to, a place lying between the great wall of China on the Kalgam and Selinginsky, in the country south of the Amoor. It is signalized as the place where the rebel Koeur-tan (Kal-dan) was finally defeated, A. D. 1696. Kaldan was uncle to the reigning prince, Tse-vang-Rahdan, and had stirred up the Eleuth Tartars to rebel. See Kalkas.

CHAON, a name given to a genus of dogs. See Canis.

CHAONRI. HIND. A police station.—*Elliot.*

CHAORI. This is made of ivory, bone, or shell, and is the most ancient ornament of the Indo-Scythic dames. It appears in old sculptures and paintings. In a very old Gothic church at Moissac in Languedoc, the porch, attributed to the age of Dagobert, is the only part left. Sculptures on it represent the conversion of Clovis. Some sculptured figures below, are of a distinct age, of an Asiatic character, showing the scarf, the Champakulli or necklace, repesenting the buds of the jessamine (champa) and chaori.—*Todd Rajasthan, Vol. II,* p. 284. See Chowri.

CHAOU SEEN. The native name of Corea. See Corea.

CHAP. HIND. An impression from a stamp or seal, from the verb Chapna, to stamp or seal. The Chinese "chop" is a stamped permit, hence also the Hindi term Chapa-khana, a printing press.

CHAH. HIND. The refuse of the Jhurburee, after the Pala is beaten from it.—*Elliot.*

CHAPABARRY, in long. 89° 1′ E., and lat. 26° 50′ N.

CHAPADA, or Chopada. SUMATRAN. Fruit of Artocarpus integrifolia.

CHAPANGU. MALEAL. Cæsalpinia sappan

CHAPAN-I-KARD. PUSHT. A woollen acket.

CHAPAR. HIND. A thatch of straw; also roofing slate.—*Elliot.*

CHAPATI. HIND. An unleavened cake baked on a girdle, eaten by the people of Hindustan.

CHAPEAUX. FR. Hats.

CHAPEE, a river near Bholtah in Kotah.

CHAPEL ISLAND, called by the Chinese Tung-ting-seu, is in lat. 24° 10′ N., long. 118° 13½′ E, on the south-east coast of China.—*Horsburgh.*

CHAP-KA-LAC. HIND. Sealing wax, properly sealing-lac, as, in India, wax is never so used.

CHAPLASHA. HIND. Artocarpus chaplasha.

CHAPOO, a town on the coast of China; capture of, 18th May 1842.

CHAPAR, a thatch. Chapar band, a thatcher.

CHAPPAR, in Kangra, a kind of well, yielding iron sand.

CHAPPAR, in Beluchistan. The valley of Chappar lies westward of Ziaret, and extends from the vicinity of Kelat to that of Mungochar. It is therefore of considerable size; it contains the village of Chappar and other small hamlets. See Beluchistan. Kelat, p. 488, 492.

CHAPPATI-KI-BHAJI. Duk, Marsilea quadrifolia.

CHAPPEES, a river near Benaee in Kotah.

CHAPRA-LAKH, HIND. See Chap-ka-lac.

CHAPRASI. HIND. A messenger; from Chapras, Hind, brass, because all messengers wear a belt across their shoulders, with a brass badge.

CHAPRE, HIND. Cow-dung cakes; they are also known by the names of Gobur, Oopla, Gosa, Doja, T'hepree and Chot.

CHAPRUNG, in long. 79° 33′ E., and lat. 31° 27 N. It is described as a large populous place. When any man of property dies, they bruise the body to pieces, bones and all, and form it into balls, which they give to a large species of kite, who devour them. These birds are sacred, kept by the Lamas, and fed by them, or by people appointed for that purpose, who alone approach them: others dare not go near them, perhaps from superstitious motives, for they are held in great fear. This is a ceremony which is very productive to the priesthood; an expenditure of very large sums (many thousand rupees, said our informants), being made on the decease of any great man, and the Lamas receiving presents of very fine and expensive caps. Poorer people are sometimes buried, and at others thrown into the river.—*Fraser's Himalaya Mountains, p.* 338.

CHAPTALIA GOSSYPINA.

Oreoseris lanuginosa.

The plant.

Shepherd's tinder,	ENG.	Sookta	PANJAB.

The tinder.

Kuff,	PANJ.	Kuffee,	PANJAB.

This is found in the Sutlej valley between Rampur and Sungnam, at an elevation of 7000 to 9000 feet. The tomentum or downy filament on the under surface of the leaves is employed by the hill people as tinder. *Cleghorn Punjab Report, p.* 67. *Beng. A. S. Soc. Proceedings.*

CHAPTI-LAC. DUK. GUZ. and HIND. Shell-lac.

CHAPARA SHUSHT'HEE. SANS. From chapara, to press, and shash-hee, the name of a goddess.

CHAR, also Char-Charoli: MAR. Buchanania latifolia.

CHAR, HIND. Valeriana Wallichiana; Valeriana Hardwickii; Quercus semecarpifolia.

CHARA. HIND. Fodder, forage, green gram, wheat or other crop, cut for forage or fodder, also a truss, a sheaf, grass, food for animals.

CHARADRIUS HIATICULA. Ringed plover of Europe, N. Asia, Japan, Greenland.

CHARADRIUS CANTIANUS. Kentish Plover of Europe and Asia, not uncommon in India.

CHARADRIUS PHILIPPINUS. Ch. minor; 'Little Ringed Plover' of Europe, Asia, North America: rare in Britain; exceedingly common in India.

CHARADRIUS PYRROTHORAX, a very common Indian species, known in Europe as a straggler.

CHARA CHETTU. TEL. Buchanania latifolia, *R.* ii. 385. Fruit called Chara pappu, Charu mamidi.

CHARAI. HIND. of Kaghan, Juniperus excelsa, J. arborea, Pencil cedar.

CHAR AIMAK. Aimak is a Mongolian, Mantchu and Turki word, meaning a tribe. Of these, there are in Kabul and Persia four tribes, the Char Aimak. They dwell to the north of Herat and Kabul in the range of the undulating country which in some places assumes a mountainous, in others a hilly character, and in some parts is well watered, in others bleak and rough, forming a watershed of two natural divisions, from the western of which flows the Murghab, the Tajend and the Farrah-rud, and from the eastern, the Helmund, the south-eastern feeders of the Oxus and the north-western feeders of the Kabul river. It is said that Timur, exasperated at the depredations committed by the people inhabiting Mazanderan, south of the Caspian, transported the whole of them into the mountains situated between India and Persia. The descendants of that people form the four tribes or Aimak. They are also called Firoz Kohi, after the city of that name (situated about sixty-three miles from Teheran), where they were defeated and taken captives by Timur. According to Latham, the Aimak are of the Sunni sect of mahomedans, and are in number four, viz., the Timuni, the Hazara, the Zuri, and the Timuri. The Timuri and the Hazara lie beyond the boundaries of Kabul, and are subject to Persia. Vambery says that the four tribes are the Timuri, Teimeni, Feroz Kohi and Jamshidi, and that the whole are of Iranian origin and speak Persian. The Timuri dwell about Gorian and Kah'san, the Teimeni from Karrukh to Sabzwar; the Feroz Kohi near Kale No, and the Jamshidi on the shores of the Murghab. In their reverence for fire, and their respect to the East, to which their tent doors look, they retain many of the fire worshipping views. The Aimak tents are Turk, those of the Timuri are Afghan. They live in well fortified castles, but in tents rather than houses, prefer a despotic government, eat horse flesh, and mix the flour of a nut called Khundzik (chesnut?) with that of their wheat. The Aimak settled in the 13th century and their number is estimated at 400,000.—*Latham's Descriptive Ethnology. Ferrier Hist. of Afghan, p. 3. Vambery, Sketches of Central Asia.* See Mongols.

CHARAITA. Duk. Agathotes chirayta, *G. Don.* This valuable bitter is largely employed in medicine, being a perfect substitute for the gentian of Europe. Several plants are, however, used under this general name. The Andrographis (Justicia) paniculata is one of the best of these, and the Ophelia elegans is another. See Agathotes; Andrographis; Ophelia; Chiretta.

CHARA KANDA. Tel. Colocasia nymphœfolia, *Royle.*

CHARKH, Hind. A wheel.

CHARAKH PUJAH, religious rites amongst hindus. When the sun enters Aries, hooks from a lever are passed through the skin over the shoulder blade, and the lever is made to rise high in the air and revolve with the hooked person. Wood and iron and snakes are passed through the tongues, the cheeks, and the skin of devotees and of young children. The devotees are called Gajan, and it is in honour of Siva that they inflict tortures on themselves. The British Government about the middle of the 19th century prohibited its practise in British India. See Siva.

CHARAN, a sacred race in the west of India, whose character and pursuits almost resemble those of the Bhat or Bards, and the origin of both is involved in fable. In hindu mythology, the Baut or Bhat, the hindu bards, were produced to amuse Parvati, from the drops of sweat on Siva's brow, but they sang the praises of Siva only, which so offended Parvati, that she turned them out of heaven, and condemned them to lead a wandering life upon earth, to sing there the martial deeds of heroes and the praises of the gods. According to another mythology, Mahadeva created a bard to attend to his lion and his bull, but the bull was daily killed by the lion, on which Mahadeva, tired with daily creating a bull, formed the Charan, to be their attendant. The Charan was equally devout with the Bard, but of bolder spirit, and from that date the bull was never distroyed by the lion. The Charans of the Maroo or desert, in the sandy tract of the Indus, are mendicants who attend at marriages and festivals, and threaten to injure themselves if not relieved. The Charan is generally revered, and follows the profession of a bard, herald, and genealogist, and as such is often taken as personal security, the breach of which is followed by the death of the charan or of some member of his family. In Central India, owing to the pressure for means, they have become grain carriers. A colony of Charans from the frontiers of Cutch Bhooj, was founded at Murlah, near Chittore, by rana Hamir, so celebrated in the history of Mewar; he had a leprous spot on his hand, to remove which he made a pilgrimage to the shrine of Hinglaz, upon the coast of Makran, the division Oritæ of Arrian's geography. The Marlah Charans are of the tribe Cucholeah, and are grain carriers. The sanctity of their office made their persons sacred, and the immunity extended likewise to their goods, and saved them from all imposts; so that in process of time they became the free-traders of Rajpootana. This community collectively advanced to receive Colonel Tod at some distance from the town. The procession was headed by the village band, and all the fair Charani, who, as they approached, gracefully waved their scarfs over him. It was a novel and interesting scene: the manly persons of the Charans, clad in the flowing white robe, with the high loose folded turban inclined on one side, from which the mala, or chaplet, was gracefully suspended; the naiques or leaders, with their massive necklaces of gold, with the image of the pitriswur (manes) depending therefrom, gave the whole an air of opulence and dignity. The women were uniformly attired in a skirt of dark brown camlet, having a boddice of light-coloured stuff, with gold ornaments worked into their fine black hair; and all had the favourite Choori, or rings of hati-daut (elephant's tooth), covering the arm, from the wrist to the elbow, and even above it. The founders of this little colony accompanied rana Hamir from Guzerat in the early part of his reign, and although five centuries have elapsed, they had not parted with one iota of their nationality or their privileges since that period:

neither in person, manners, or dress, had they any thing analogous to those amidst whom they dwell. Indeed, their air is altogether foreign to India, and although they have attained a high place amongst the tribes of India, their affinity to the ancient Persian is striking, the loose robe, high turban, and flowing beard, being more akin to the figures on the temples of the Guebres than to any thing appertaining to the Char-burrun or four classes of the Hindus.—*Rajasthan, Vol.* ii. *p.* 622. See Bard, Bhat, Kutch, India, p. 334, Rajput.

CHARAN DASI, a sect of Vaishnava hindus who worship Krishna and Radha. It was founded by Charan Das, who lived in the reign of the second Alimgir, and was a merchant of the Dhusar tribe, a resident of Delhi. His followers are both clerical and secular. At Delhi, is the Samadh or monument of the founder.—*Wilson.* See Hindoo.

CHARA-PUPPU. Hind. Buchanania latifolia.

CHARANGLI, of Salt Range. Boucerosia edulis.

CHARAS. See Charras.

CHARATI.

CHARAX, a town mentioned by Pliny, at the extremity of the Persian Gulf. See Mesopotamia.

CHARAY, also Churay, Hind. A knife, any knife; also the knife of the Affghan, a long single-edged dagger, used with much effect by them. It is about the size of the old Roman sword, and speaks volumes for the courage of the wielders.—*Burton's Scinde, Vol.* II, *p.* 267. *Pilgrimage* 1, *p.* 320.

CHARAYUM. Tam. Arrack. Charaya karan. Maleal, is a distiller or vendor of spirituous liquor.

CHARKH-PUJA. A hindu religious festival. See Charakh Puja.

CHAR BAGH, a town of Lughman. See Kabul, p. 433.

CHARBAI, a town of Mekran. See Kelat p. 492.

CHARBI. Guz. Hind. Tallow, fat.

CHARBON DE BOIS. Fr. Charcoal.

CHARBON DE TERRE. Fr. Coal.

CHARCHARILA. Hind. Parmelia Kamtschadalis.

CHARCOAL.

Zugal.	Ar.	Kolsa.	Hind.
Fahm-chobi.	Ar. ??	Carboue de legna.	It.
Mi-thwa.	Burm.	Carbonium.	Lat.
Koela.	Duk.	Carbo-ligni.	,,
Carbon, also Charcoal.	Eng	Araug-bara.	Malay.
Wood charcoal.	,,	Zeghal-i-chobi.	Pers.
Charbou.	Fr.	Lippe-anghoru.	Singh.
Charbon de bois.	Fr.	Carbon de lena.	Sp.
Kholenstoff.	Ger.	Adapu carri.	Tam.
Reine kohle.	,,	Karri.	,,
Ku-e-la.	Guz.	Bogu.	Tel.
Koela.	Hind.	Poibogulu.	,,

In the south and south east of Asia, where coal is found only in a few localities and the cost of carriage is great, charcoals are in great request, and attention to the modes of preparing them is of much consequence. In the peninsula of India, the common native mode is to set on fire a heap of small wood and, after allowing it to burn for some time, to quench it either by water or by heaping earth upon it; but charcoal so prepared is of little value in reducing iron ore, and the process is wasteful. In various parts of the country, there are slight differences in the mode of preparation, but all are faulty and objectionable in an economical point of view. It is therefore of great importance to India that more economical modes of preparing charcoal should come into general use, the destruction of firewood in the neighbourhood of iron works being grossly extravagant. Indeed, between the loss in preparing the charcoal and the loss of heat in preparing the iron, the consumption of the fuel is probably, at least, ten times as great as it ought to be, inducing great loss and in many cases rendering useless extensive beds of most valuable ore. Native iron smelters only employ fuel from one to three inches in diameter; and, to procure this, they take saplings, or the tops and branches of the largest hard wood trees, allowing the trunks to decay. They do this because large trees are not adapted for fuel for native smelting, as the cost of splitting them adds greatly to the expense; and, unless the logs be split, the inner wood is not carbonised. Charcoal, to be good, should be of wood burned with as little exposure to the action of the air as possible and be black, brittle, easily pulverised, perfectly insipid, solid, and inodorous. Charcoal is mostly used as a fuel, and in the manufacture of gunpowder. For the forge, the best is that prepared from bamboos and from stems of palmyra leaves (Tel. Tati komaloo). The tamarind yields a good charcoal for the same purpose, as do most hard woods. But the charcoal of the Acacia sundra is said to be amongst the best for this purpose. For gunpowder the root of the milk hedge, Euphorbia neriifolia, and of the Calotropis gigantea is preferred. At the Madras Government Powder Mills, that of the gram bush, Dolichos uniflorus, and, in those of Bengal and Bombay, the Cajanus indicus or pigeon pea stalks are used. Charcoal used for gunpowder manufacture is generally made from small shrubs or herbs, as Vitex, Cajanus, the mudar, Calotropis gigantea and Parkinsonia aculeata, the Parkinsonia being said to yield a very good charcoal for gunpowder, though the gunpowder considered the best is manufactured from the Sesbania Ægyptiaca. The gunpowder charcoal used at the Damoodah Coal Works is made from an Acacia: the Sikhs employed Justicia adhatoda, which is also in use all over India: at Aden the Arabs prefer the Calotropis, probably, because it is most easily procured. The grain of all these plants is open, whereas in England, closer-grained and more woody trees, especially willows, are preferred. In India, gunpowder charcoal is also made from the Adhatoda vasica, Alnus, Butea frondosa, Colebrookia oppositifolia, Cornus macrophylla, Daphne oleoides, and Hamiltonia suaveolens. In Ceylon, the cashew-nut tree is considered the best sort of wood for charcoal for iron smiths, and is felled for this purpose only. With this, as a substitute for coals, the assistance of a sheep skin for bellows, and a hole in the ground for a forge, the native smiths produce any piece of iron-work, iron knees and channel-work for large vessels; and the brass founder, any piece of metal, such as the pintles and braces for ships of 700 tons burden. At Darjeling that of the chesnut wood is used by blacksmiths. In Nepaul, the best is made of the wood of the Bahang, or holly leafed oak. In Kullu and Kangra the wood chiefly used for charcoal is Kail, Pinus excelsa, but the alder (kaunch) the Alnus Nepalensis, which fringes the tributary streams, is also employed for this purpose, as no hard woods are available. The lighter woods generally yield lighter and more combustible charcoals. Nevertheless, the dogwood of Britain, the wild Cornel tree, which makes the strongest of the British gunpowders and is exclusively used for the powder of the breech loading fire arms, is a dense, comparatively heavy, slow growing wood. In Britain, the alder, the willow, and dogwood, are the only woods used for charcoal in the Government establishments, the two former for cannon powder, the last for small arms. Private makers use the same woods, and the last for the forest sporting powder. The three woods grow well in England, but they are chiefly obtained from Belgium, Holland and Sussex, the dogwood selling at £12 to £15 the ton; coarser woods are used for common blasting powder. There are many circumstances connected with this ingredient of gunpowder not yet understood, but it seems to be the variations in it which cause the differences in the powder. Charcoal is little liable to decay. When the building of Fort William was completed, about the middle of the eighteenth century, it was resolved to lay in a store of fuel in case of siege; and with this view an enormous quantity of charcoal was buried in large square beds in the centre of the barrack squares, these beds being about four feet in depth, and about the same distance beneath the surface of the ground. About eighty years afterwards, these charcoal deposits were opened, and although it appears that, from the nature of the soil, the fuel has been saturated with water for more than three-quarters of a century, its value and its powers of combustion seem to be scarcely, if at all, impaired." The best charcoal for a dentrifice, is that of the betel-nut. Charcoal possesses remarkable antiseptic properties, as it resists the putrefaction of animal matter, and destroys the smell and colour of many substances.—*Mr. Faulkner, Mr. Rohde, Dr. Cleghorn, McCulloch's Dict., p.* 266, *Mr. Wall's Report in G. O.* 17*th July, No.* 1040 *of* 1859, *Hooker's Him. Jour. Vol.* 1, *page* 9. *Edye Mal. and Can. Dr. J. L. Stewart. Quarterly Review, July* 1868.

CHAR-DANGHEH, in Persia, a mode of dividing fields. See Dangah.

CHAR DEH, the town of Kabul is built at the foot of a hill of gneiss that rises 1000 feet above it. The town bends round it from the south-east to the south-west, where, with the dip of another hill opposite, is formed the pass, 150 yards broad, that leads into Char-Deh. Kabul may be described as lying at the foot of a range of hills whose direction is from north-east to south-west. The country is thus divided into the plain of Kabul, and the Char-Deh or four villages. See Kabul, p. 433.

CHARD. Fr. Beet.

CHARDO A CARDER. Fr. Teasel.

CHARDIN, in 1664-7, travelled through Persia.

CHAREE, a section of the Bazeegur.

CHAGODAR, Valeriana Wallichiana.

CHARI. Pashtu. Quercusilex.

CHARGOL. Heb. A beetle.

CHARI, the doe of the Antelope Arabica of Hemprich.

CHARI. Hind. Stalks of millet, &c. for fodder, also Sorghum vulgare; Carex Indica? *Rang-Chari* is Elsholtzia polystachya.

CHARIKAR, a town in long. 68° 59′ E. and lat. 34° 28′ N. It is near Bagram, and thirty miles north of Kabul. From Charikar to Jellalabad the road is open, and it is supposed that Alexander, whether he recrossed the mountains at Bamian or at Beghram, marched by this route on India. See Kohistan.

CHARIKONA SHIM. Beng. Goa Bean. Psophocarpus or Dolichos tetragonolobus.

CHARI-MARAM, the wood called ebony in England named Acha-marm, Nuga-gaha. Singh.—*Edye, Mal. and Can.* See Ceylon woods.

CHARIOT. The war chariot is mentioned in Judges 19, where we are told that Sisera had nine hundred chariots of iron. From the Sanscrit work, called the Dhunoorveda, it appears that the hindoos had war chariots, similar to those of Sisera. They are described as having had many wheels, and to have contained a number of rooms. The war chariot is peculiar to the Indo-Scythic nations; and was in use in India from the days of Desaratha and the heroes of the Mahabharat, to the conquest of the hindus by the mahomedans, when it was laid aside. On the plains of Coorukheta, Crishna became charioteer to his friend Arjuna. Indeed the title Desaratha means a charioteer. The Getic hordes of the Jaxartes, when they aided Xerxes in Greece and Darius on the plains of Arbela, had their chief strength in the war-chariot. The war-chariot continued to be used later in the south-west of India than elsewhere, and the Catti, Comani, Comari, of Saurashtra have, to recent times, retained their Scythic habits, as their monumental stones testify, expressing their being slain from their cars.—*Tod's Rajasthan.* See Hindoo.

CHARITRA. See Komarpal.

CHARIZM, according to Dow, in the 6th century of the Hijrah, a Charismian empire rose on the ruins of the Seljukidæ, which extended itself over Tartary and the greatest part of the Persian provinces. During the reign of Mahomed, Chengiz Khan over-ran the Charizmian empire.—*Dow's Hindostan.* See Kharism.

CHARJ. BENG. Otis Bengalensis.

CHAR-JATI. HIND. The four clans of the first class of the Khutri. These four are the Seth, Marhota, Khunna, and Kuppoor. See Khutri.

CHARKARI MAHAL, in the Panjab, the portion of a doab requiring well irrigation.

CHARKA. HIND. Letsæa, *Sp.*

CHARKH. HIND. A pulley over which a water-rope runs, a wheel. The sheave of a block.

CHARKHA. HIND. A wheel, a cotton cleaning wheel.

CHAR-KHANEH. HIND. Chequered muslin.

CHARKHI. A kind of silk of Kabul.

CHARKH PUJA. HIND. A barbarous ordeal among the lower classes and low castes of hindoos of India. By self-inflicted wounds, or being suspended in the air by hooks passed through the back, individuals hope to expiate their sins. See Charakh-puja.

CHARKINA. MALEAL. Boerhavia diffusa.

CHARKHRE. HIND. Carpinus niminea.

CHAR-KUCHOO. BENG. Colocasia antiquorum.

CHARLANG. A section of the Bakhtiari tribes.

CHARLOMBI, the Tamil name of a Ceylon tree which grows to about fifty feet high, and twenty inches in diameter. It is very close-grained and light, and resembles some kinds of mahogany. It is used in house-work, &c.: the fruit which it produces is of little value.—*Edye, Ceylon.*

CHARLWOODIA AUSTRALIS, the Norfolk Island Breadfruit, attains twenty feet in height; it branches from within a few feet of the ground, and forms several heads, with flag-like leaves, and long-branched spikes of greenish star flowers, succeeded by whitish or bluish purple berries, that are eaten by parrots.—*Keppel's Ind. Arch, Vol. II., p.* 284.

CHARMA, a name of Ham, the eldest son of Noah. See Kush or Cush.

CHAR-MAGHZ. HIND. Juglans regia. The walnut, lit. "the four-kernel'd fruit," Pers.

CHARMAK, properly Char aimak. In the Derajat, are warlike Baluch and Afghan tribes, the most unyielding of whom are the Waziri, who continued to resist the efforts made by the British to restrain their inroads on the plains. Still further north and west are the numerous tribes of Afghanistan, of whom may be mentioned the powerful Durani race and the Tajik tribes. The Mongol of Kabul, Persia and Herat, called Kalmuk in Herat and Afghanistan, and Eimak and Charmak in the Hazara, dwell north of Kabul and Herat In the Bunnu valley, there are mixed races, and we may notice the Durdu in Giljit and Chulas. See Char Aimak.

CHARMING DENDROBIUM. Dendrobium formosum.

CHARMO, also Chumra. GUZ. HIND. Leather.

CHARMS. ENG.

Tawiz,	AR. HIND. PERS.	Ism,	HIND. PERS.
Mantram,	SANSC.		

Charms are in general use amongst all the races in the south and east of Asia, and amulets are worn and used both to work for good and to work for evil. Dr. Milner reminds us that the custom of inscribing mystic characters upon the person, as a safeguard, or having them engraved in the form of an amulet or charm, is of the most remote antiquity. The first mention made of a practice of this kind, is in the case of Cain, who had a *mark* set upon him, which, whatever was its nature, denoted the bearer to be placed under the immediate protection of heaven, so that no man might slay him. Of a similar nature was the blood sprinkled on the door-posts of Israel in Egypt, a sign that the destroying angel was not to enter, the inmates being under the divine protection. A similar preserving token is referred to in Ezekiel

ix. 4, where the man "clothed in linen," having a writing ink-horn by his side, is commanded by God to set a "mark" upon the foreheads of those who grieved for the abominations of Jerusalem. "Behold my sign!" says Job xxxi. 35, according to the marginal reading; or, "Behold, here is my Thau" (a mystic mark), as Calmet renders it, evidently referring to some distinctive badge which he wore; and Paul, probably, alluding to some acknowledged sacred sign, observes, "henceforth let no man trouble me, for *I bear in my body the marks* of the Lord Jesus." Portions of St. John's Gospel were worn by the early Christians, and verses of scripture were even placed upon horses. Among the Anglo-Saxons, gems were much esteemed. King John had a large collection, and, in the sixteenth century, amulets were warehoused in large quantities, and usually worn round the neck, as a protection from pestilence, as the following item shows: "a hundryth weight of amletts for the neke, xxx^s iii j^a" (*Gage's Hengrave*, 155.) The celebrated Nostradamus gives the following extract from a MS. poem on the virtues of gems, written by Pierre de Boniface in the fourteenth century: "The diamond renders a man invincible; the agate of India or Crete, eloquent and prudent; the amethyst resists intoxication; the cornelian appeases anger; the hyacinth provokes sleep." (*Milner's Seven Churches of Asia, p.* 127.) The hindu aryan and non aryan races use them very largely. There are six description of *charms*, or "muntras" known in Goozerat, which are described in a series of works forming the scriptures on the subject, or "Muntra Shastra." A charm called "Marun Muntra" has the power of taking away life; "Mohun Muntra" produces ocular or auricular illusions; "Sthumbhun Muntra" stops what is in motion; "Akurshun Muntra" calls or makes present anything; "Washeekurun Muntra" has the power of enthralling; and "Oochatun Muntra" of causing bodily injury short of death. (*Ras, Mala, Hindoo Annals, Vol.* ii, *p.* 403.) Many of the charms worn by hindoos and mahomedans are merely to distract or avert the evil-eye. A not unfrequent one, in sickness, is a string formed of hair that has been combed out of the head, to which is attached a piece of the Acorus calamus root, a cowrie shell, a marking nut, and the eye of a peacock's feather. All mahomedans have faith in charms. In the *Ellahi Namah* (Section 12), an old Persian work, it is mentioned that women, during parturition, derive considerable benefit from wearing a charm composed of certain ingredients made into a little ball, which must be "perforated with a hog's bristle." (*Ouseley's Travels*, Vol. I., p. 227.) Most of the mahomedan pilgrims when moving towards Mecca have a charm or "tawiz" suspended around their necks, and almost all mahomedans when setting out on a journey, bind a piece of money on their arm, as a votive offering to the Imam Zamin. In Arabia, the instant a foal is born, a charm is tied round its neck in a bag of black cloth, and sometimes in this the pedigree is placed. Many of the mahomedans of Turkey and Asia, carry talismans about with them, especially in war, consisting of verses of the Koran, to which they attach extraordinary influence, and with one mahomedan soldier, who had fallen in battle, a whole Koran was found wrapped in the rolls of his turban. The mahomedans put up charms over the lintels of the doors, on the walls of their houses, and almost constantly use them on their arms as amulets, for the cure of ailments, to cast out devils, to ward off demons, fairies, enchanters, and to cleanse a haunted house. In exorcism, certain names (Ism, sing. Isma, pl.) are used by mahomedans, the ism-jallali, or fiery or terrible attribute is used; also, the ism jamali, the watery or air attribute, and with these they cast out devils, and command the presence of genii and demons. Amongst mahomedan women love-philters are in frequent use, and engraved amulets and leaves and roots of plants, are worn by them to retain or win affection. The Revd. Mr. Ward once saw a mahomedan woman dropping slips of paper into the river, and upon inquiry, found that they contained some sacred words, and that the woman was presenting these papers to the river-saint, Khaja Khizr, in hopes of obtaining relief. Persians consider the number "thirteen" so unlucky, that, in general, they will not even name it. When they have occasion to allude to this number instead of mentioning sezdeh (*thirteen*), they say Ziyad (much more) or hech (nothing). *Skinner's Overland Journ. Vol.* ii., *p.* 70. *Ward's View of the Hindoos, Vol.* 11., *p.* 71. *Milner's Seven Churches of Asia, Herklot's Kanoon-i-Islam.*

CHAR-MUGHZ. Pers. also Girdighan: Jouz-i-roomi. Pers. Juglans regia, Walnuts.

CHARON. Rajpoot priests. See Charan.

CHARPAI. Hind. a sleeping cot or bedstead; literally, four foot.

CHARRAS, the gum resin of the hemp plant; Cannabis sativa. It is collected in Nepaul, but that of Bokhara is most esteemed. It is a gum resin, exuding from the flower heads of the hemp plant and also from the seed when ripe. In the Punjab, when the seed is gathered, the heads are rubbed with the hands, and the charras collected. In other places, men, clothed with leather garments, walk about among the hemp plants brushing up against them. The gum resin comes off and adheres to the leathers which are then taken off and carefully scraped. The finest charras is produced in Yarkand and Kashgar. There is a kind of charras called "garda" which is much in use, and of this again there are three sorts, "surkha," "bhangra" and "khak."—*Powell's Handbook*, *p*. 93. *Elliot*.

CHARSA, of Ptolemy, the modern Kars, see Kars.

CHARSA, a huge bucket made of hide, for a well. See Lao charsa.

CHARSUDDA. A town in the Peshawur valley near which the Swat river joins the Kabul river. See Khyber, p. 509.

CHART. Eng.

Zeekarten,	Dut.	Carte marine,	It.
Cartes marines,	Fr.	Pata,	Mala.
Seekarten,	Ger.	Cartas de marear,	Port.
Naqsha,	Hind.		

Marine charts of coasts, seas and oceans.

CHARTA. Lat. Paper.

CHARU, the Malayala name of a jungle-wood which grows to about forty feet high, and two feet in diameter. It is used in building native vessels, particularly for planks. It is not very durable, and is of little value except for those purposes. It is cheap, and is easily procured from the banks of the rivers.—*Edye*, *M. and C.*

CHARU. Hind. A cake of rice. See Yug.

CHARU, in hinduism, one of the five Jagna, who consist of the Bali, Charu, Baswadeva, and Agnihotra. See Inscriptions, p. 389.

CHARUKAR, a town in Affghanistan. It was plundered and burned on the 3rd October 1842.

CHARUL, also Chironji. Hind. Charu Mamida. Tel. Buchanania latifolia.

CHARULI. Hind. Chirongia sapida.

CHARUM. Mal. Soda.

CHARUNG, a pass in the Himalaya in Lat. 31° 24', lon. 78° 35'. The Crest of the pass is 17,348 feet. The pass is extremely difficult. See Kunawar.

CHARVADAR, in Persia, the chief muleteer of a caravan, and generally owner of the animals. He employs a certain number of the Ratirchi or mule drivers as his servants or assistants.

CHARWAHA. A herdsman, a grazier, of North India.

CHARVAKA. One of the six atheistical systems of philosophy, current amongst the eastern Aryan race in India. The other five are the Yogachara, Sidhanta, Wai-bashika, Madhyamica and Digambara, all full of indeterminate phrases and containing a jumble of atheism and ethics. The derivation of charuvaka is from charoo, insinuating, and vaka, a word. See Vidya.

CHAR-YARI. Hind. *Char*, four, and yar, a friend, a sunni mahomedan who acknowledges Abu-Baker, Omar, Osman and Ali as the four legitimate khalifs.

CHASA, also Apaynum. Sans. Opium. Chasa is said to be derived from khas khas, poppy seed.

CHASARFO, a yellow earth of Spiti.

CHASM. Hind. Pers. The eye, pronounced tchasm. It is deemed amongst eastern mahomedans an organ of the body by which they can swear; possibly originating in the old practice of blinding persons. The persian expressions, "Ba chasm," and "Ba sar-o-chasm," also the hindi words "mere sar aor ankh par," meaning your order be on my eyes, are usual responses on receipt of an order, and acknowledging that it will be obeyed, on the penalty of the head and eyes. The evil eye is the chasm-i-bad or bad chasm of the mahomedans of Persia and India. See Evil Eye.

CHASHMAL. Heb. Amber.

CHASHM-I-BAD. Pers. Hind. The Evil Eye.

CHASHM-I-KHORAS. Pers. Abrus precatorius, *Linn.*

CHASM-I-MAIDAH. Guz. Hind. Pers. Cat's eye, the gem so called.

CHASNAK, Cassia absus.

CHASNI, a sugar boiler; syrup of sugar.

CHASS, a town in Manbhoom.

CHASTANG. Hind. Faba vulgaris.

CHASTE TREE, 3 leaved, Vitex trifolia. —*Linn.* 5 Leaved, Vitex negundo.—*Linn.*

CHATAI. Hind. A mat.

CHATA KATTU TIVVA. Tel. Ipomœa cymosa, *Rom. and Sch.*—Convolvulus blandus, *R.* i. 470.

CHATANULU. Tel. According to Wilson, a class of sudra, who worship Vishnu exclusively, and whose occupation is the sale of flowers. This seems to be the race known in the peninsula as the Satani or Sataniwanlu. *Wilson.*

CHATARASI KURA. Tel. Mollugo spergula, *L.*—*W. and A.* 161. Mol. verticillata *R.* i. 360; Pharnaceum Mol. *R.* ii. 102.

CHATARPUR, see Inscriptions, p. 389.

CHATEAU-MARGAUX. Fr. A kind of claret.

CHATEE.—? Corchorus olitorius.

CHATERNI. Hind. Rhamnus purpureus.

CHATGARI, a frontier district of British India, situated between Desh Durrung and the Bhutan Hills, occupied by the Kachari or Borro, of whom about 30,000 dwell in the valley. They are found in the Assam valley, and on its North and South borders, they have no written character, but a large part of their vocables are identical with those of the Garo, and almost all the rest may be traced to some dialect of the Tibetan. See India, 338.

CHATIN. Beng. Alstonia scholaris.

CHATNAH, a town in Manbhoom.

CHATNEY, Chutney or Chetney, a warm condiment in use in India.

CHATRI. Guz. Hind. An umbrella. In the native states of India the sovereigns grant the right to wear the Chatri, sometimes designating the colour, similar grants are made for the palanquin, shawls, &c.

CHATOORBHOOJAH, the 'four-armed' divinity, a name of Vishnu. In a deed of conveyance by maharao Sri Jey Singh, this deity is invoked. The deed runs thus; At this time, Brother Maun Sing, I bestow upon thee, of my own free will, the village and lands of Jaetpoorah. This donative shall not look to rankroos (physical infirmity,) su-poot (worthiness) ca-poot (unworthiness) your issue shall enjoy them. Of this intention, I call the four armed divinity (Chatoorbhoj) as witness. You are my own child (chooroo): wherever and whenever I order, you will do my service. if you fail, the fault be on your own head."—*Tod's Rajasth.* i. 610.

CHATRA. Hind. Leucas cephalotes.

CHATRANGA, the game of chess, so called from imitating the formation of an army. The 'four,' chatur; 'bodied', anga, array; of elephants, chariots, horse, and foot. See Chatranj. Chess; Shatranj.

CHATR-GO-PUTR. Hind. The Kayastha or Kaet race, in the peninsula of India, claim this person as their ancestor. They say he was the secretary to Yama, the god of the infernal regions.

CHATRIWAL. Hind. Euphorbia helioscopia.

CHATRIYA. Amongst the Arian hindus, a warrior branch of their body, taking social rank after the brahmins. Manu says, "to defend the people, to give alms, to sacrifice, to read the Vedas, to shun the allurements of sexual gratification; such are in a few words the duties of a Chatriya." How this soldier race broke up is extremely obscure, but it is generally supposed that none of the races now in India can trace their lineage to this tribe of Arians, though some of the rajpoot families doubtless belong to them: their quarrels amongst themselves led to their own destruction. There seem to have been two branches, the Solar, who traced up to Ikshwaku, and the Lunar, who traced up to Budha, and Budha married Ella, daughter of Ikshwaku. These soldier Aryans do not appear to have adopted brahminism readily, and the brahmins, to overawe them, consecrated by fire on Mount Aboo a warrior body who still remain, and are known as the four agnicula rajpoot tribes. A not unusual spelling of the word is Kshatriya, but Chetriya is not uncommon. The third Upa Veda which was composed by Viswamitra treats on the fabrication and use of arms and implements handled in war by the Chatriya tribe. See Vidya.

CHATTÆ, Guz. CHATAI, Hind. Mats.

CHATTA-PAT. Hind. Leaf of Licuala peltata.

CHATTERPORE, in long. 79° 35′ E., and lat. 24° 57′ N.

CHATTI.—? An unglazed earthen pot.

CHATTIRIYAN. Tam. A man of the military caste. See Chatriya.

CHATTR. Hind. Rhamnus virgatus.

CHATTRAM. Tam. Chattar, Hind. a caravansery.—*Wilson.*

CHATTRI. Hind. Agaricus campestris.

CHATU—? Gunny.

CHATUR-DASI, in hindu astronomy, the 14th day of the Lunar Pacsha.

CHATUR-DASI. In the hindu religion, festivals held on the 13th and 14th of the month Cheyt, in honour of Cama, the god of love. *Madana*, he who intoxicates with desire *(cama)*, are both epithets of the god of love. The festivals on the 13th and 14th are called *Madana triodasi* (*thirteenth*) *and chaturdasi* (*fourteenth*). On these days, the rajpoots of Oodyapur sing hymns handed down by the bards, "Hail! god of the flowery bow, hail! warrior with a fish on thy banner, hail! powerful divinity, who causeth the firmness of the sage to forsake him, Glory to Madana, to Cama, the god of gods; to him by whom Brahma, Vishnu, Siva, and Indra, are filled with emotions of rapture. There is no city in the East where the adorations of the sex to Cama deva, are more fervent than in Oodyapur, the city of the rising sun.—*Tod's Rajasthan, Vol. I, p.* 577.

CHATUR-DESA-RATNA. In hindu mythology, the fourteen articles called gems, produced by the churning of the ocean. This event is fabled to have occurred in the second incarnation or avatar of Vishnu in the form of a tortoise or Khurma, when the ocean was churned by means of the mountain, Mandara, the serpent Sesha being employed to whirl the mountain round.

CHATUR-MASYA. Sansc. Sacrifices by the Vaishnava sect; of these there are four kinds, Vaiswadeva, Varuna praghasa, Sakamedha, Sunasiriya, to be offered up in the months of Asharh, Kartik and Phalguna. The attributes of sacrifice are roasted cakes of flour, with figures of sheep made of flour, to Viswadeva and Varuna, with vegetables to Agni and Indra.—*Wilson.*

CHATURVEDI. Sansc. Meaning a brahmin who has studied the four vedas. It is usually pronounced "Chaubi." Professor Wilson says that the term is now applied to a class of brahmins who are not always of a literary character. In the upper provinces of India they are usually boxers, wrestlers, and the like. —*Wilson.*

CHAU. Hind. Artemisia, *Sp.* Machilus odoratissimus.

CHAUBE. Turk. Coffee.

CHANDANDA. in long. 87° 9′ E., and lat. 26° 59′ N.

CHAUDUNDI, in long. 86° 43′ E., and lat. 26° 59′ N.

CHAUGHAN, a game of Tibet, resembling hockey, but played on horseback, on a plain about 60 yards broad and 350 long, with a stone pillar at each end as the gaol. The ball is somewhat larger than a cricket ball and is called, in Tibetan, Pulu. The stick or Byntu, is of the strong and straight bough of the almond-tree, about 4 feet long and let in at the top, and passed quite through to the other end of a curved piece of solid birch wood, about the size and shape of a drenching horn. The game is mentioned by Baker. It is played in every valley in Little Tibet, Ladak, Yessen, Chitral. See Chicane. Chougham.

CHAUHAN, one of the principal rajpoot races descended from Prithi Raj, the last hindu ruler of Indra-prestha or Dehli, and spread through Malwa and Rajasthan; the principal families are the Khichi, Hara, Bhadauria, Rajkumar, Rajor, Pratapnir, Chakarnagar and Mauchana.—*Wilson.*

CHAUK. Fr. Quick lime.

CHAUKAT. Hind. A window frame or a door frame.—*Elliot.*

CHAUKNA, in long. 74° 1′ E., and lat. 18° 44′ N.

CHAULAI. Hind. Amarantus mangostanus; on the hills A. polygonoides, a small seeded variety of A. frumentaceus: Lal chaulai is A. anardana.

CHAULARYA. Nep. Borax.

CHAULMOOGRA ODORATA, Gynocadia odorata.

Talienuoe.	Burm.	Petarcura	Hind.
Chaolmugra.	Hind.		

This tree is a native of Sylhet, but there are a few trees about Rangoon, and it is also met with on the banks of streams in the Tonghoo forests, though it must be considered scarce. In the Sylhet district, it grows to a large size, equalling the large size mango tree. When full grown it may be compared to the great maple, or sycamore *Acer pseudoplatanus.* It blossoms in April and May, and the seed ripens at the close of the year; when the fruit is gathered, the seed is carefully taken out, dried, and sold to the native dealers in drugs, at about five rupees the maund of eighty-four pounds. Its seeds are medicinal, being beaten up with ghee into a soft mass and applied three times a day to cutaneous diseases. They yield ten per cent. of oil by expression, and it has been similarly used. The seeds have been recommended for tape-worm, and an ointment, prepared from the seeds, is a favourite application among native practitioners for the treatment of several cutaneous diseases, especially herpes and tinea. The expressed oil is prized as an external application to leprous sores, while a 6 gr. pill of the seed is given internally twice a day. Occasionally the oil is given internally, 5 or 6 drops for a dose. Its wood is adapted for fancy work and cabinet making.—*Roxb. Fl. Ind.* iii, 836: *Ed. New. Phil. Mag. No.* 6. *of* 1856. *O'Shaughnessy, Beng. Phar. p.* 382, *Dr. McClelland, Honigberger.*

CHAU-MO, a secretary of the province of Kwang-tung. See Kwang-tung-chi.

CHAUNA, the name of a wood which grows in Malabar. It resembles the English beech, and is used by the natives for housework. It is not durable, nor is it remarkable for its growth, quality, or uses.—*Edye, M. and C.*

CHAUNI. Hind. Cleome pentaphylla.

CHAUNSH. Hind. Berchemia, *Sp.*

CHAUPAN PAL, or Pahal, of Kashmir, shepherds who tend the flocks of other people.

CHAURANÆI SCYTHÆ, of Ptolemy, are supposed to be the people of Khor. a teritory south-east of Ladak and eastward of the Byltæ.

CHAURAPUPPOO. Hind.

Charul, also Chironji, Hind.

This is the seed of the Buchanania latifolia, removed from the small stone or kernel of the "achhar" or fruit: it is brought to Ajmeer from Kotah: and to Madras from Cuddapah, the seed is very palatable and nutritious, especially when roasted; is used also in medicine, and considered heating; one seer and a half costs a rupee. The fresh fruit is very agreeable.—*Gen. Med. Top., page* 131.

CHAVALAPURI KADA. Tel. Andrographis echioides, *Nees. W. Ic.*

CHAWURA, or CHAURA. A tribe once renowned in the history of India, though its name is now scarcely known, or only retained in the chronicles of the bard. Of its origin, says Col. Tod, we are in ignorance. It belongs neither to the Solar nor Lunar races. The capital of the Chawura was the insular Deobunder, on the coast of Saurashtra, and the celebrated temple of Somnath, with many others on that coast, dedicated to Balnath, or the sun, is attributed to the tribe of the Saura or worshippers of the sun. The Baliabi princes were succeeded in the rule of Guzerat by the Chaura, who finally established their capital in A. D. 746, at Anhalwara, now Pattan, and became one of the greatest dynasties of India. The last raja dying in A. D. 931 without male issue, was succeeded by his son-in-law as prince of the Rajput tribe of Salonka, or Chalukya, whose family were chiefs of Calian in the Deckan, above the ghats. From the comparative nearness of Calian in the Concan, Colonel Tod has been led to suppose the Salonka prince to have come from thence, but further information is unfavourable to that opinion. *Elphinstone's History of India, Vol.* i., *p.*401, *Tod's. Rajasthan, Vol.* i. *p.* 101.

CHAURIOCHO. HIND.? A tree of Chota Nagpore, yielding a hard wood.—*Cal. Cat. Ex.* 1862.

CHAUSS, in L. 73° 59′ E., and L. 18° 51′ N.

CHAUTKUNDY. in L. 88° 12′ E, and L. 23° 10′ N.

CHAUTI. HIND. Fourth.

CHAUTNAAR, in L. 76° 18′ E., and L. 10° 5′ N.

CHAUTSOO, in L. 75° 58′ E., and L. 26° 38′ N.

CHAUTTY. See Gum.

CHAUVE-SOURIS. F. See Cheiroptera.

CHAUVRE. FR. Hemp.

CHAUX. FR. Lime.

CHAVALAN. Low caste Nairs? who are fishermen.—*Wilson.*

CHAVALAPURI-KADA. TEL. Andrographis echioides, *Nees.*—Justicia ech. *R.* i. 118.

CHAVELA. MAQ. Sorghum vulgare.

CHAVICA BETLE. MIG. *Rox. W. I.*

Piper betle, *Linn.*

Betel leaf pepper,	ENG.	Vettili,	TAM.
Betel vine,	,,	Kammeraku,	TEL.
Pan,	HIND.	Nagabali,	,,
Vetta,	MALEAL.	Tamala paku	,,

This trailing plant is cultivated in many parts of India, and through the archipelago. The people wrap in it a piece of betel nut and quick lime and chew it. It reddens the saliva. —*Roxb.* 158.. *Voigt.* 299. See Betel.

CHAVICA ROXBURGII. MIQ.

Piper longum, *Linn.*

Dar-Filfil.	ARAB.	Chabai Jawa,	MALAY.
Filfil-u-daraz,	ARAB. PERS.	Tabee,	,,
Pipul,	BENG.	Katta Terpali,	MALEAL.
Pei-kbyen,	BURM.	Pippuli,	SANS.
Pippili,	DEK.	Krishna, pippuli	,,
Long pepper,	ENG.	Tipili,	TAM. SING.
Pipla Mul,	HIND.	Pipulu, Pipul,	TEL.
Pipal, Pippul, Pilpul,	,,		

The root.

Pippula moola.

This plant is extensively cultivated, but it grows on the banks of streams in the Circar mountains, S. Concan, Bengal, Sylhet, and on the banks of the Irawady. The dried catkins of the female plant form the long pepper of commerce.—*Roxb. I.* 154. *Voigt.* 299. *Useful Plants.*

CHAVICA SERIBOO. MIQ.

Rasi,	BALI.	Barg-i-Tambol,	PERS.
Pan,	BENG. DUKH.	Bugo,	PHILIPHINES.
Nag-bel,	HIND.	Tamboli,	SANS.
Siriboo Pepper,	ENG.	Purna,	,,
Chambai Lampaug,	MALY.	Bulat-wæla	SINGH.
Siri	,,	Vettilei,	TAM.
Bitala-codi,	MALEAL.	Tamalap,	TEL.

The root.

Bekh-i-Pan, PERS.

CHAOUS. TURK. A herald, a running footman, an interpreter. The word is supposed to have originated the English phrase, to chowse, or cheat, as the Turkish interpreters so frequently misinterpret.

CHAWA-MANU. TEL. Amoora rohituka, *W. and A.*

CHAWAT. See Dori.

CHAWHATTIA. See Kattyawar. Miana.

CHAWUL. HIND. DUK. Rice: husked grain of Oryza sativa.—*Linn.* Undressed rice, cleared of the husk.

CHAYA. SANS. A shadow, from cha, a covering, or disappearance. See Surya.

CHAYA. BENG. Ærua lanata. *Juss.*

CHAYANG. HIND. Brassica. *Sp.*

CHAYAU-KA-YOE. BURM. Amoora rohituka. *W. and A.*

CHAYROOKA, MALEAL. Capparis Heyneana.

CHAY ROOT. ANGLO-TEL.

Emboorel	TAM.	Tsheri Velloo	TEL.
Rammisserem Vayr	,,	Chaya Veru	,,

This is the root of a small biennial weed, the Oldenlandia umbellata, which is largely used as a scarlet dye. It is extensively cultivated in Ceylon and the Peninsula of India, but grows wild and the Singhalese prefer the wild plant. At the Madras Exhibition of 1855 specimens were exhibited from Guntoor, Masulipatam, Nellore, Tanjore, Tinnevelly, Travancore, and Madura. The plant grows in light sandy ground near the sea where its roots strike very deep—the colouring matter resides entirely in the bark of the root, the inner portion is white and useless. This root is of great importance to the Indian dyer, yielding a red dye similar to munjeet, Rubia cordifolia. The celebrated red turbans of Madura are dyed with the Chayroot. That of Madura is considered superior of its kind, but this superiority is probably owing to some chemical effect which the water of the Vigay River has upon it, and not to any peculiar excellence of the dye itself. Wild chay roots are shorter, and are considered to yield one-third or one-fourth more colouring matter than the cultivated root, this probably arises from too much watering, as much rain injures the quality of the root. Roots of two years growth are preferred when procurable. It is said that chay-root rapidly deteriorates by being kept in the hold of a ship, or indeed, in any dark place. —*M. E. J. R.* When cultivated, the minute seeds are gathered together with the surface sand and sown in land previously prepared. It is watered, for a year, and then dug, and sells at Rupees 20 the candy of lbs. 500. If left longer in the ground it increases in value and does not require further watching.

When first sown, it is immediately watered with water in which cow-dung has been dissolved. This binds the surface and prevents the seeds being blown about by the winds. The people in the peninsula of India test the value of the root by mixing some of the pounded root and quick lime: if good, the mixture soon assumes a fine red colour, if the mixture become pale or brown or if no change of colour take place, it is considered of no value. If a white colour prevail in the inside of the bark, and on the wood we may be pretty certain that the root is spoiled, a green colour is a sure indication of its goodness.—*Rhode MSS.* The outer bark of the roots furnishes the coloring matter for the durable red for which the chintzes of India are famous. Chay-root forms a considerable article of export from Ceylon. It grows spontaneously on light, dry, sandy ground on the sea coast; the cultivated roots are slender, with a few lateral fibres, and from one to two feet long. The dye is said to have been tried in Europe, but not with very advantageous effect. Dr. Bancroft suspects it may be injured by the long voyage, but he adds that it cannot produce any effect which may not be more cheaply obtained from madder. This red dye, similar to munjeet, is used to a great extent in the southern parts of India by the native dyers. It is not held in very great estimation in Europe, but seems to deserve a better reputation than it at present possesses. Attention was drawn to it as a dye-stuff in 1798, by a special minute of the Board of Trade recommending its importation; but Dr. Bancroft's report discouraged its further importation.—*Rhode. M. E. J. R. Simmonds.* See Dyes.

CH'HAEE, or CHHAI, Hind. A pad, to prevent laden bullocks from being galled.

CH'HAGUL-BATEE. Beng. Naravelia Zeylanica.

CH'HAGUL-BANTEE. Beng. Dæmia extensa.

CH'HAGUL-KHOORI. Beng. Ipomœa pes capræ.

CH'HAGUL-NUDI. Beng. Sphæranthus hirtus.

CH'HAGUL-PATEE. Beng. Cynanchum pauciflorum.

CHHAGUL-PUTPUTEE. Beng. Euphorbia dracunculoides.

CH'HAJ. Hind. A basket used in winnowing grain.

CH'HAKRA. Hind. A cart or carriage, without sides used for conveying cotton. The "Gari" has sides.—*Ell.*

CH'HAP. Hind. A stamp, a seal; in north India, the Potdar's stamp. The Chinese Chop. In Delhi and the Upper Doab, it is the name applied to a small bundle or heap of thorns about a foot high. When large, it is called K. hewa. *q. v. Elliot.*

CH'HAPPAR. Hind. Thatch or a thatched roof, Ch'happar-Band, a thatcher.

CH'HATAK. Hind. From che, six, and tika, mark. An Indian weight and measure.

CH'HATHAR, in L. 84° 15′ E., and L. 28° 30′ N.

CHHATIN. Beng. Alstonia scholaris.

CH'HATRA, also Ch'hatri, Hind, an umbrella, a parasol, a small ornamental pavilion. —*Elliot.*

CH'HATRAPA, in Bactro-Pali, a Satrap.

CHHATRI, H. a man of the second, or military caste of hindus. *Wils.* See Chatriya.

CHATTO, Hind. a canopy of royalty.

CHHUTTOOR, also Chhattur, Hind. the name given in Northern India to a covering placed on a heap of winnowed corn. It is from the Hindee ch'hatr, an umbrella, Persian chutr. It is known also by the names of Burhawun and chank, q. v. In Benares it is generally a mere cake of cow-dung; elsewhere, it is a shoot of grass, or a dry stick of the arhur, Cytisus cajan, with several (generally five) projecting twigs, on each of which a small piece of cow-dung is placed, or a flower of the Ak or Mudar (Calotropis gigantea). Sometimes a spear is stuck in the ground, at the side of the heap; and sometimes an artificial flower is placed at a short distance from the bottom of the heap. The object in view is to prevent the effect of an evil eye, or the injury which is sure to be sustained from the praises of any casual visitor, or any "eye biter," as an Irishman would say. That this strange opinion was entertained among the ancients is known to every reader of Virgil and Theocritus. It is a prevalent opinion not only among the Scotch and Irish, but with almost every other nation of the globe. But by the native of N. India the Chhuttoor is devoutly believed to offer a sure safe-guard against the disastrous effects of fascination. If his Ras or heap be but provided with this protection, the husbandman may sleep secure; but as sure as he neglects it, should an evil eye fall upon the grain, he will have to weep over the lost hopes of a year's labours.

"Nam quocunque aciem horribilem intendisset ibi omnes
Cernere erat subito afflatos languescere flores.

. . . .

"Spem que anni Agricolæ mœsti flevere caducam. *Elliot.*

CHHAYA. Beng. Ærua lanata.

CHHAYA, spelt in a variety of ways in European books which treat of hindu astronomy; under this term are a variety of elements, but these are multiplied by mistake in consequence of Europeans varying their manner of writing oriental words. The word means a shadow. In hindu astronomy, Vishuva chhaya, the shadow of a Gnomon, when the sun is in the Equinoctial points. Madhyama ch'ha ya, the midday shadow of the same at any other time of the year. Sama mandala ch'ha ya, the midday shadow of the same when the sun is east or west of the Gnomon; Ch'haya suta; one of the names of Saturn, meaning Born from Darkness.

CH'HAYA. Hind. A shade, a spirit. The shade of a goddess or deity. In the hysterical or cataleptic seizures which happen to hindu devotees, where a deity is supposed to take possession, the expression used to denote it, is "Ch'haya aya or Saya aya;" and the body of the possessed is said to be filled, "ang-bhara."

CH'HEDA, also Chheda. Hind. A destructive little animal similar to the weevil (Calandra granaria), from "Chhed," Hind, a hole, the verbal root of chhedna, to pierce. It is also the name of the disease which grain sustains when affected by the ravages of this animal.—*Elliot.*

CH'HEENTA, also chhinta. Hind. From chheentna, to sprinkle; a field in which peas and linseed have been sown by broadcasting, while the rice crops are standing on the ground. When the rice is cut, these crops are left to grow, and are harvested in the beginning of the month Chyte. In Dehli the term chheenta is applied to throwing more seed amongst a growing rice crop. The same word is employed in Goruckpore to signify lands in which seed has been scattered after a single ploughing; more particularly at the extremities of villages, with a view to secure possession.—*Elliot.*

CH'HEENTA. Hind. A drop of water, ch'heenté-cheenté parna, spitting of rain. Dud'h ki handi men, pani ki ch'hinti dalna, to sprinkle water into a jar of milk, meaning to cause unnecessary annoyance.—*Elliot.*

CHHINDU. See Inscriptions, No. 46.

CH'HITUA. Hind. Broad-cast sowing. *Elliot.*

CHHOD-TEN, an offering to a buddhist deity, a buddhist temple. There are numeruos ch'hodten in Tibet consecrated to the celestial Bud'dha in contradistinction to the Dungten, which are built in honour of the mortal Bud'dhas, and which ought to contain some portion of relics, either real or supposed. See Bud'dha; Dungten; Chaitya; Tope.

CHHOLA. Beng. Cicer arietinum.

CHHONA. Punjabi. Coarse rice.

CHHOONCHOO MOORMOORI. Beng. Isolepis squarrosa.

CH'HOR. Hind. Release, Chor-chitti, a deed of release. *Ell.*

CHHOTA. Hind. Small; hence,

Chhotakelu, Asparagus racemosus:

Chhota Kulpa. Borago Indica.—Indian borage, a common plant grows wild in many parts.—*Riddell.*

Chhota Lewar. *Hind.* Andromeda fastigiata.

Chhoti Lane, *Hind.* Suæda fruticosa.

Chhoti Manhari. *Hind.* Solanum xanthocarpum.

Chhoti Van. *Hind.* Salvadora Indica.

Chhoti (Mai) *Hind.* Tamarix orientalis.

Chhoto-Akundo. *Bengal.* Calotropis herbacea.

Chhoto-bich-taruka. *Bengal.* Argyreia argentea.

Chhoto-chand, *Bengal.* Ophioxylon serpentinum.

Chhoto-doodhee-luto. *Bengal.* Gymnema sylvestre.

Chhoto-genda. *Bengal.* French Marygold. Tagetes patula.

Chhoto-gothoobee. *Bengal.* Cyperus dubius.

Chhoto-hulkusa, *Bengal.* Leucas aspera.

Chhoto-jalgantree. *Bengal.* Panicum repense.

Chhoto-jam. *Bengal.* Eugenia caryophyllifolia.

Chhoto-jantee. *Bengal.* Utricularia diantha.

Chhoto-jhunjhun. *Bengal.* Crotalaria prostrata.

Chhoto-keruee. *Bengal.* Euphorbia Chanæsyce.

Chhoto-kirata. *Bengal.* Slovogtia verticillata.

Chhoto-kokshim. *Bengal.* Vernonia cinerea.

Chhoto-kulpu. *Bengal.* Trichodesma indicum.

Chhoto-kut. *Bengal.* Sagittaria sagittifolia.

Chhoto-looniya. *Bengal.* Portulaca meridiana.

Chhoto-mechheta. *Bengal.* Hemiadelphis polysperma.

Chhoto-musoor. *Bengal.* Gardy Tare, Ervum hirsutum.

Chhoto-mutur. *Bengal.* Gray Pea. Pisum sativum. P. quadratum.

Chhoto-neelpud-mo. *Bengal.* Nymphœa stellata.

Chhoto-okra. *Bengal.* Zapania nodiflora.

Chhoto-pan-choolee. *Bengal.* Villarsia cristata.

Chhoto-phootika. *Bengal.* Osbeckia aspera.

Chhoto-pine-nutee. *Bengal.* Cynodon filiformis.

Chhoto-ruktu-kumbul. *Bengal.* Nymphœa rosea.

Chhoto-sada-makhum-shim. *Bengal.* Canavalia erythrosperma flore albo.

Chhoto-shundhi. *Bengal.* Nymphœa edulis.

CH'HUTTEE. Hind. A mahomedan rite, held on the sixth or seventh day of a woman's confinement.—*Herkl.*

CHHUTTHEH, a sub-division of the Jut race in the Punjab. See Jut.

CHAYRUKA. Maleal. Syn. of Capparis Heyneana.

CHE-ANNA, literally six annas, a class of the Garo, who are rated at six annas. See Garo.

CHEBIRA. Tel. Peristrophe bicalyculata, *Nees.* Justicia bic., *R.* i. 126.

CHEBULIC MYROBALAN. Six kinds of Chebulic myrobalans are used in India for many purposes, all known as Helileh,

H-i-Zira, is the fruit dried when just formed, and the size of a cummin seed or Zirah.

H-i-Javi, the fruit dried when the size of a jao, or barley-corn.

H-i-Zingi, the fruit dried when of a larger size, and black like a negro.

H-i-Chini, larger than H-i-Zingi, and greenish.

H-i-Asfar, the fruit near maturity and yellow Asfar.

H-i-Kabuli, the fruit at full maturity. Mature Cabul myrobalans sell for a rupee a piece in the Bombay market, under the name of Sarwar-i-Hindi.

CHECHAR. Hind. Rhus buckiamela.

CHECHER, under the mahomedan system of land tax, lands which had suffered from inundation or excessive rains, the rent of which was remitted for five or six years. See Khiraj.

CHECHUA, or Sunkur. Gond. Acacia odoratissima.

CHECK. Checks fit for children's dresses and gown pieces of great variety, are made in the Madras Presidency, the quality very good, the color, tastefully distributed, and the dyes excellent.—*M. E. J. R.*

CHEDARASI. Tel. Mollugo spergula, L.

CHEDDULU. Tel. White Ants.

CHEDI. A kingdom in Saurashtra, to which Krishna resorted once as a fugitive and again as a conqueror. See Krishna, p. 545.

CHEDU. Tel. Bitter.

CHEDUBA, a moderately high island extending from lat. 18° 40′ to 18° 56′ N., its greatest breadth being almost 15 miles. The tides are irregular, but at full and change, high water occurs at ½ past 9 o'clock. It is a volcanic island, lies off Arracan, and is about 1,760 feet high; it was lifted 10 feet up about the year A.D. 1750. Hallstead gives an account of it in Bl. As. Trans. 1841, Vol. X. 350. It was taken from the Burmese on the 27th May 1854.—*Horsburgh. Dr. Buist.* See Earth quakes, Ramree or Yambie. Volcanoes.

CHEDU BADDU DUMPA. Tel. Dioscorea pulchella. R. iii. 801. The name signifies "bitter climbing tuber." Not uncommon in the forests of the *Manyem* lands, a hill country of Vizagapatam and Ganjam.

CHEDU BIRA. Tel. Luffa amara, R. iii. 715.

CHEDU POTLA. Tel. Trichosanthes cucumerina, L.

CHEECHORE, in L. 73° 53′ E., and L. 18° 38′ N.

CEEHEE, a Gujur tribe.

CHEEKAR. Hind. Mud, slime.

CHEEKLEE, in L. 73° 10′ E., and L. 20 48′ N.

CHEEL, also Cheer. Hind. Pinus longifolia. This tree is plentiful on the lower hills of the Himalaya, but is seldom found in Koonawur; its upper limit is 6,000 feet, and the country Koonawur is too elevated for it.—*Capt. Gerard.*

CHEEL. Hind, a kite. The word is applied to the Haliastur Indus, which is called the Sankar cheel or Siva's kite, and is known to Europeans the brahmany kite, also to the Milvus ater or common kite of India, Malaya and East of Europe.

CHEELOO NUTEEYA. Beng. Amarantus polygonoides.

CHEEMPIRI KUTTA. Tel. Broom grass.

CHEENA-GOURA-NEBOO. Beng. Variety of Citrus bergamia.

CHEE NEB. Burm. Stinking Wood. Eng. This wood, of maximum girth 4 cubits, and maximum length 22½ feet, is abundant in Tavoy and Mergui. When seasoned, it sinks in water. The flowers of this wood have an intolerably fetid sickening smell, hence its name; it is used by the Burmese for boxes, tables, &c., and is a long fibred, tough wood when new, but rots so readily that, with a whole tree in Captain Dance's possession, he could not cut out a decent specimen.—*Captain Dance.*

CHEENEH, a sub-division of the Jat race, in the Panjab. See Jat.

CHEEP, a river near Gopalpore in Bhopal.

CHEEP. Guz. Mother of pearl shell, probably a corruption of the Persian Sip or Sipi, any shell or mollusk; a pearl shell.

CHEER, also Sullah, also Surul, also Thausa. Hind. Pinus longifolia.

CHEER, a pheasant of the Himalaya, also called Charir.

CHEERA MELLA. Hind. Phyllanthus longifolius.

CHEERI, also Kutaja, Sans. Wrightia antidysenterica.

CHEERI, Sans. Mimusops hexandra.

CHEERONJI OIL.

Charuli ka tel	Hind.	Sarepappu nuna	Tel.
Saré paripu yenne	Tam.		

Oil of the seeds of Buchanania latifolia. The kernels of the fruit are eaten by the natives of India to promote fatness; they abound in a straw colored, sweet tasted and limpid oil, which is seldom extracted. The tree grows plentifully in Mysore and Cuddapah.—*Mad. Ex. Jur. Rep.*

CHEESE, Eng.

Kaas,	Dut.	Keju,	Malay.
Fromage,	Fr.	Queijo,	Port.
Kase,	Ger.	Sur,	Rus
Panir,	Guz. Hind, Malay, Pers.	Queso.	Sp.
		Juunu katti,	Tam.
Formaggio ; Cacio,	It.	Juunu gedda,	Tel.
Caseus,	Lat.		

Cheese is made by the natives of India, but that used by Europeans is imported from Europe, and is known in the market by names derived from the places of manufacture, such as single and double Gloucester, Stilton, Chedder, Dunlop, Dutch, Cheshire, &c., &c. &c. In Britain the principal season for cheese-making is from May to September, and it is carried on in nearly every county, but particular districts have acquired great repute. In Cheshire cheese, the salt is well mixed with the curd, and not merely rubbed on the outside. This, which is the most celebrated English cheese, is made in quantities amounting to nearly 14,000 tons annually. The average annual produce of cheese in Great Britain and Ireland is 80,000 tons, most of which is made in Cheshire, Gloucestershire, Shropshire, and Derbyshire. In 1849, 22,081 tons were imported into Britain, of which 14,109 tons came from Holland. The rich cheese called Stilton is made in Leicestershire: it is not sufficiently mellow for use under two years old. Double and single Gloucester cheese is also well known. The former is made of the milk and cream, the latter of the milk and half the cream. Bath and York are famous for cream cheeses. Good cheeses are produced in large quantities, in Holland. In Gouda cheese, which is considered the best in that country, muriatic acid is used instead of rennet. 'Hence it is never infested with mites. Parmesan cheese from Parma, in Italy, is skim-milk cheese, owing its rich flavour simply to the fine harbage on the banks of the river Po. Swiss cheese, especially that of Gruyere, is pleasing to some tastes. It is flavoured with herbs. British imports of cheese have hitherto been chiefly from Holland.—*Tomlinson, page* 359, *Faulkner, McCulloch's Commercial Dictionary, p.* 271. *Statist. of Commerce.*

CHEESTA, a river near Panch Gatchee in Rungpoor.

CHEETA. Hind. Plumbago Zeylanicalyllut.

CHEETAH. Hind. The several leopards and panthers of India, are so named, the word meaning spotted, in opposition to the striped markings of the tiger. The word is used by the natives of India, but they prefix another word to indicate the particular animal intended: it is however a term which Europeans use more than natives. Generally, by the word cheetah, is meant the Felis leopardus, *Schreb.* The F. pardus is called the Gor-bacha, and the hunting leopard the shikari cheetah. The black or kala cheetah is supposed by some to be a variety of the F. pardus. The hunting leopard, the Felis jubata, is carried to the field on a flat-topped cart, without sides, drawn by two bullocks, each animal has two attendants, and is loosely bound by a collar and rope to the back of the vehicle, but is also held by the keepers by a strap round the loins. A leathern hood covers their eyes. By skilful management the cart approaches within two hundred yards of the game. The cheetah is then unhooded and loosed from its bonds, and it drops quietly off the cart. It approaches them at a slow, crouching canter, masking himself by every bush and inequality of ground. As soon, however, as they begin to show alarm, he quickens his pace, and is in the midst of the herd in a few bounds, rolls over the one he fixes on, and in an instant is sucking the life-blood from its throat. The instant that the deer is pulled down, a keeper runs up, hoods the chetah, cuts the victim's throat, and receiving some of the blood in a wooden ladle, thrusts it under the leopard's nose. The antelope is then dragged away and placed in a receptacle under the cart, while the chetah is rewarded with a leg for his pains.—*Mundy's Sketches in India, Vol. I., p.* 50.

CHEETA-MEENA, a branch of the Meena race from whom spring the Mair or Mera race, the mountaineers of Rajpootana, one of the aboriginal races of India, whose country is styled *Mairwarra*, or "the region of hills." The Mair is a branch of the *Mena* or *Maina*. The Mair is also called *Mairote* and *Mairawut;*

Mairwarra is that portion of the Aravalli chain between Komulmer and Ajmeer, a space of about ninety miles in length, and varying in breadth from six to twenty. Rajpootana rises from three to four thousand feet above the level of the sea. *Mera* is 'a mountain' in Sanscrit; *Mairawut* and *Mairote* 'of or belonging to the mountain;' the name of the Albanian mountaineer, *Mainote*, has the same signification. The *Mair* are a branch of the Cheeta, an important division of the *Mena*, a race which consists of as many branches as their conquerors, the rajpoots. All these wild races have the vanity to mingle their pedigree with that of their conquerors, though in doing so they stigmatize themselves. The Cheeta-Mena accordingly claim descent from a grandson of the last Chohan emperor of Delhi. Unail and Anoop were the sons of Lakha, the nephew of the Chohan king. The *coconut* was sent from Jessulmer, offering princesses of that house in marriage, but an investigation into their maternal ancestry disclosed that they were the issue of a Mena concubine: and their birth being thus revealed, they became exiles from Ajmeer, and associates with their maternal relatives. Unail espoused the daughter of a Mena chieftain, by whom he had Cheeta, whose descendants enjoy almost a monopoly of power in Mairwarra. The sons of Cheeta, who occupied the northern frontier near Ajmeer, became *mahomedans* about fifteen generations ago, when Doodha, the sixteenth from the founder of the race, was created Dawad Khan by the hakim of Ajmeer; and as Athoon was his residence, the "Khan of *Athoon*" signified the chief of the Mairotes. Athoon is still the chief town of the Mair race. Chang, Jhak, and Rajosi, are the principal towns adjoining Athoon. Anoop also took a Mena wife, by whom he had Burrar, whose descendants have continued true to their original tenets. Their chief places are Burrar, Bairawara, Mundilla, &c. The Mena were always notorious for their lawless habits, and importance has been attached to them so far back as the period of *Beesildeo*, the celebrated prince of Ajmeer, whom the bard Chand states to have reduced them to submission, making them "carry water in the streets of Ajmeer." Like all mountaineers, they broke out whenever the hands of power were feeble. —*Tod's Rajasthan, Vol.* I. *p.* 681.

CHEETUL. Hind. The spotted deer. Cervus axis.

CHEGA GADDA. Tel. Vangueria spinosa. *R.* i. 536. The tree is not found in Southern India.

CHEGA. Tel. Sanseviera Roxburghiana, *Schult.*

CHEGO, a rac in Malabar, who seem to be noticed by Wilson as the Chegavan or Chekavan, whom he describes as a man of low caste, commonly a Tair, one whose occupation is drawing toddy. The tradition is that the Chego came originally from Ceylon, where they belonged to the military caste. The Chego say that in the time of Cheramperumal, a washer-woman, whose house adjoined that of an Ajari (carpenter), being occupied as usual in washing a cloth in water mixed with ashes, and having no one at hand to hold the other end of it, called to a young daughter of the Ajari, who was alone in the house, to assist her. The child, not knowing that this was an infringement of the laws of her caste, did as she was requested, and then went home. The washerwoman was emboldened by this affair to enter the Ajari's house a few days afterwards; and upon the latter demanding angrily how she dared to cross his threshold, the woman answered scornfully that he belonged now to the same caste as she did, since her daughter had helped to hold her cloth. The Ajari, learning the disgrace that had befallen him, killed the washerwoman. Upon this, her friends complained to Cheramperumal, who espoused their cause, and threatened the carpenters; whereupon the latter combined together to take refuge in Ceylon, where they were favourably received by the king of Candy. Cheramperumal begged the king of Candy to send them back, promising to do them no injury. The Ajari did not place entire confidence in these promises, but asked the king to send with them two Chego and their wives, to witness Cheramperumal's conduct towards them, and to protect them. The king granted their request, with the stipulation that on all occasions, such as weddings and deaths and other ceremonies, the Ajari should bestow three measures of rice on each of these Chego and their descendants, as a tribute for this protection; a custom which still exists. If the Ajari is too poor to afford the outlay, he is still obliged to present the requisite quantity of rice, which is then given back to him again; the privilege of the Chego being thus maintained. From these two couples all the Chego of Malabar are said to be descended. This caste comes next below that of the Sudra, but is considered much less honourable. In times of civil war or rebellion, the Chego are bound to take up arms for the lawful sovereign; and some princes employ them as soldiers on other occasions, if they have not a sufficient force of Nairs. Their principal occupation is that of drawing *Toddy*, which is compulsory on their caste; this operation is performed by cutting the top off the cocoa-palm, and collecting in vessels the juice which exudes from it. The Chego are sub-divided into two castes: the Chego and the Twen Chego.

CHEHEL. Pers. Properly Chahal. Near the *Jehan Numa* in Shiraz, is a building called *Chehal Tan*, "the forty bodies or persons." Another, the *Haft Tan*, or "seven persons," from the number of holy men there buried. *Ouseley's Travels, Vol.* II., *p.* 2.

CHEH'L-WASTI, or captain of forty, amongst the Nasiri, a nomad race who occupy the Tohti and Hotuki countries in summer and the Daman or skirts of the Suliman range in winter. In their migrations, they appoint a cheh'l wasti or captain of forty and a director general. See Affghan. Nasiri.

CHEHOOR, a pale brownish colored cordage of Beerbhoom, coarse and of moderate strength.—*Royle.*

CHEIRANTHUS CHEIRI. *Cruciferæ.* Wall Flower. The name is from Cheir, the hand, and anthos, a flower. Derives its English name from growing wild on old walls and ruins in England. It is of a light yellow colour, but, when cultivated in gardens, assumes a rich dark tint, mixed with brown. The double variety of a yellow colour, and striped with deep orange, is seldom known to blossom in the peninsula. In the Punjab it is called Lahori subu.—*Riddell.*

CHEIRONECTES. The frog-fish of the British, in India, belongs to the family of lophiadæ or anglers, and are met with in many seas. In this group the bones of the carpus form arms that support the pectoral fins, and enable these fishes to walk along the moist ground, almost like quadrupeds. Cheironectes immaculatus, Ruppell, has feet or claws rather than fins.—*Tennent's Sketches of the Nat. His. of Ceylon, p.* 330, 331. See Fishes.

CHEIROMELES TORQUATUS, Horsf. One of the Vespertilionidæ found in Sumatra, Java, Borneo, Siam and Western Asia. It is 5½ inches, long, and expansion nearly two feet.

CHEIROPTERA. Bats.

Flitter mice,	Eng.	Pipistrelli,	It.
Chauve souris,	Fr.	Nottoli,	,,
Fleder mauser,	Ger.	Vespertiliones,	Lat.
Gudhul,	Hind.	Shub-para,	Pers.
Chum Gudhul,	,,	Trinjan,	Tam.
		Bat,	Eng.

A sub-order of the Order Primates. The bats, or flitter mice, derive their scientific name from the two Greek words kheir, a hand, and pteron, a wing, from the circumstance that a membranous fold of their skin, commencing from their neck, spreads out between their fore feet and their fingers. They are mammiferous animals, and include four families, viz.

Fam. Pteropopidæ. Frugivorous Bats.
4 Gen. Pteropus 4 species, Cynopterus 2 species, Macroglossus 1 species.
Fam. Vampyridæ. Vampyre bats.
Sub-Fam. Megadermatinæ.
1 Gen. Megaderma 4 species.
Sub-Fam. Rhinolophinæ.
5 Gen. Rhinolophus 11? species, Hipposideros 10 species, Cælops 1 species, Rhinopoma 1 species, Nycteris 1 species.
Fam. Noctilionidæ.
Sub-Fam. Taphozoinæ.
1 Gen. Taphozous 3 species.
Sub-Fam. Noctiloninæ.
1 Gen. Nyctinonus 1 species.
Fam. Vespertilionidæ.
Sub-Fam. Scotophilinæ.
3 Gen. Scotophilus 6 species, Noctulinia 1 species, Nycticejus 8 species.
Sub-Fam. Vespertilioninæ.
8 Gen. Lasiurus 1 species, Murina 2 species, Kerivoula 4 species, Vespertilo 5 species, Myotis 5 species, Plecotus 2 species, Barbastellus 3 species, Nyctopilus 1 species. See Mammalia.

CHEIROPUS TORQUATUS. Muller. a Syn. of Cheiromeles troquatus, one of the Vespertilionidæ.

CHEITUN, a Brahmin of Nuddea, who, in the beginning of the 16th century, introduced the reforms of Ramanund into Bengal.

CHEKAVAN, or Chegavan, Mal. A toddy drawer in Malabar.—*Wilson.* See Chego.

CHEKONADI. Tel. Cadaba indica, *Lam.*

CHEKURTI TIVVA. Tel. Pentatropis microphylla. *R.* ii. 35.

CHEL. Hind. Cannabis sativa.

CHELAH, according to Malcolm (1, 366) means literally an adopted dependant, it neither applies to a slave, nor an adopted child, but to a person who is admitted to the claims of a dependant relation. In use, it means a disciple, a pupil, a slave. Tod (ii. 608) says it includes servitude or domestic slavery, but implies, at the same time, treatment as a child of the family, or disciple. Tod mentions that at Bhynsror, the head of the establishment came forth to bestow his blessing on him and to beg something for his order. He however, in the first place, elected Colonel Tod one of his *chela*, or disciples, by marking his forehead with a *tika* of *bhaboot*, which he took from a platter made of *dhak*-leaves.—*Malcolm. Tod's Travels, Central India, Vol.* i, *p.* 1,366. 1,608. See Math.

CHELANTHE PATTE. Maleal. Bark of Thespesia populnea.

CHELAT-PIPPUL. Beng. Stillingia sebifera.

CHELBENAH. Greek. Galbanum.

CHELICUT, near Antalo in Tigre, in

Abyssinia. This town is said by Lefebvre and Ferret and Galinier to contain about 3,000 inhabitants.—*James' Par. Pass.*

CHELIFER. Amongst the insects which infest books in India are two genera, which are usually regarded as accomplices in the work of destruction, but which, on the contrary, pursue and greedily feed on the larvæ of the death-watch and the numerous acari which are believed to be the chief depredators that prey upon books. One of these maligned genera, is a tiny tailess scorpion (Chelifer), of which three species have been noticed in Ceylon, the Ch. librorum *Temp.* Ch. oblongum *Temp.*—and Ch. acaroides *Hermnan*, the last of which it is believed had been introduced from Europe in Dutch and Portuguese books. Another genus of book insects is the Lepisma, the fish insect genus, and called so by Fabricius from its fish-like scales, tiny silvery creatures which feast on the acari and soft-bodied insects that infest books. There have only been two species described, viz., the L. niveo-fasciatus and L. niger, *Temp.* It has six legs.—See *Bane.*

CHE-LING-TCHA-POO. A division of the country of the Kalkas, in the district of Pola, adjoining the Russian district Selingsky. See Kalkas.

CHELKA DUDUGA. TEL. Unona discolor.

CHELLAWN. H., properly Chilan, an invoice, a passport, from Chilana, Hind, to forward.

CHELLU. TAM. Termites.

CHEL-MAR-ZAI. One of the four divisions of the Med, a sea faring and fishing population on the sea ports of the Mekran coast, the other three divisions are Guzbur, Hormari and Jellar-zai. See Kelat, p. 492. Mekran.

CHELMON ROSTRATUS. LINN. One of the archer fishes. Chætodon rostratus Shaw, is, according to Sir J. E. Tennant, the archer fish of the fresh waters of India. On seeing a fly settle over head on a leaf, it propels a drop of water and brings it down. See Chætodon toxotes.

CHELONE. Flowering plants named from *Chelone,* a tortoise, the flowers are scarlet, orange, white and purple.—*Riddell.* See Scrophulariaceæ.

CHELONIA, an order of reptiles, known as tortoises and turtles, generally considered the first by zoologists. They are also termed Testudinata, from testudo, the Latin for a tortoise. They belong to the section of Cataphracta or sheilded reptiles, and the families, genera and species in S. E. Asia are as under:—

SEC. A. CATAPHRACTA. Sheilded Reptiles.
ORDER CHELONIA.
Fam. Testudinidæ.
Gen. Testudo Indica. *Gmel.* Galap.
„ radiata, *Shaw.* Madag.
„ stellata, *Shaw.* Vizag.
„ platynotus, *Blyth.* Burm.
„ elongata, *Blyth.* Arak. and Ten.
Gen. Homopus Horsfieldii, *Gray.* Affgh.
Fam. Geoemydidæ.
Gen. Manouria Emys, *Gray.* Moulm.
Gen. Geoemyda grandis, *Gray.* Tenas.
„ tricarinata, *Bly.* Chaibassa.
Gen. Cuora Amboinensis, *Daud.* Malac. and Ten.
Gen. Cyclemis orbiculata, *Bell.* Burm.
Fam. Emydidæ.
Gen. Emys nuchalis, *Blyth.* Java.
„ Hamiltonii, *Gray.* Calcutta.
„ trijuga, *Schweigg,* Arakan. and Madras.
„ nigra, *Blyth.* Tenasser.
„ sebæ.
Gen. Tetraonyx Lessonii, *Dum et Bib.* Cal. Ten.
Gen. Batagur lineatus, *Gray.* S. E. India.
„ Thurgii, *Gray.* Calcutta.
„ dhongoka, *Gray.* Central India.
„ Berdmorei, *Blyth.* Pegu
„ ocellata *Dum.* Cal.
„ trivittata, *Dum.* Moul.
Gen. Pangshura tectum, *Bell.* Calc.
„ tentori, *Gray.* Indus.
„ flaviventer, *Gunth.* Beng.
„ Smith, *Gunth.* Beng.
Gen. Platysternum megacephalum. *Gray.* Martaban.
Fam. Trionycidæ.
Gen. Emyda granosa, *Gray.* Calcutta.
„ Ceylonensis, *Gray.* Ceylon.
Gen. Trionyx Gangeticus, *Cuv.* Beng.
„ Guntherii, *Gray.* Arak.
Gen. Chitra Indica, *Gray.* Hooghly.
Fam. Chelonidæ.
Gen. Sphargis coriacea, *Linn.* Tenass.
Gen. Caretta imbricata, *Schweigg.* Bay of Bengal.
Gen. Caouana olivacea, *Eschs.* Bay of Bengal.
Gen. Chelonia virgata, *Schwegg.* Bay
„ midas „ of Bengal.,

Chelonia midas is the green turtle. Caretta imbricata, Hawksbill turtle, Ch. Caouana, Loggerhead turtle. As an article of food, the Green turtles (Tortues Franches of the French), are so highly prized that they have become a considerable article of commerce.

The fat of many species, when fresh, is used with success in lieu of butter and oil in cookery; and in those kinds which have a musky odour (*Chelonia, Caouana,* and *C. Caretta* for instance), is used for embrocations, leather-dressing, and as lamp-oil. The imbricated turtles furnish that valuable article, tortoise-shell, or rather the best sorts of it, so highly prized in ancient and modern times, and so ornamental and useful in the arts. The eggs of all species, particularly those of the Green Turtles, are excellent. The following Asiatic *Chelonia* are arranged according to their geographical distribution, from Dr. J. E. Gray's "Catalogue of the Tortoises and Crocodiles, &c., in the collection of the British Museum."

River Tigris.
Tyrse Rafeht.
Cabul.
Testudo Horsfieldii.
India.
Testudo Indica.
Emys tectum.
Emys tentoria.
Emys Davaucellii.
Emys trijuga.
Emys lineata.
Emys dhongok a
Emys Thurjii.
Emys trivittata.
Emys ocellata.
Emys Hamiltonii.
Tetraonyx Batagur.
Emyda punctata.
Tyrse Gangetica.
Dorgania subplana.
Chitra Indica.
Ceylon.
Testudo stellata.
Emys seba.

China.
Geoemyda Spengleri.
Geoemyda Bealii.
Geoemyda Reevesii.
Geoemyda mutica.
Geoemyda nigricans.
Cistudo trifasciata.
Platystemon megacephalum.
Tyrse perocellata.
Japan.
Emys Japonica.
Sumatra.
Geoemyda spinosa.
Emys crassicollis.
Emys platynota.
Amboyna.
Cistudo Amboinensis.
Java.
Cistudo dentata.
Tyrse Javanica.
Indian Ocean.
Caouana caretta.
Red Sea.
Caretta imbricata.—*Eng.*

Chelonophagi, inhabited the shores of India and the Red Sea as Strabo and Pliny testify. They used the shells of the turtles which they caught for roofs for their houses and boats. The largest shell seen in modern times was, 7 feet.—*Yule's Cathay and the way thither. Eng. Cyc.* 1004, 1007. See Reptiles.

CHELYTREOUS GENERA. See Coleoptera.

CHEMA KURA. Tel. Colocasia antiquorum, *Schott.*

CHEMANTI. Tel. Chrysanthemum Roxburghii, *Desf.*

CHEMBAGA MOTTU. Maleal. Michelia Rheedii.

CHEMBADIVADU. Tel. A fisherman.

CHEMBU NARINGI. Maleal. Indigofera enneaphylla.

CHEMMAN. Maleal. A currier. See Chamar.

CHEM-MARA. Mal. Amoora rohituka.

CHEMPAKAM. Mal. Michelia champac. *Linn.*

CHEMRI. Hind. Eleusine flagellifera.

CHEMUDU. Tel. Euphorbia tirucalli, L. Euphorbia cutteamundu. See Cutteamundoo.

CHENA. Guz. Chenna, Hind. Cicer arietinum. Bengal gram.

CHENA CULTIVATION. Anglo-Singh. In Ceylon, means patches of forest, burned, cleared and cultivated for two or three years and then abandoned, and allowed to become forest lands again. This destructive form of cultivation is known as Kumari on the western coast of India.—*Tennent. Dr. Cleghorn.* See Kumari.

CHENA. Hind. Panicum miliaceum. P. pilosum. It is sown and reaped in the hot season after all the rubbee crops have been cut. It needs much water, hence the saying

Chena ji ka lena,
Choudah pani dena,
Byar chale to, na lena na dena,

To get the chena crop water it fourteen times. If a blast strike it, then neither harvesting nor selling—*Elliot.*

CHENAB, the Acesines of the Greeks, is the largest of the five great rivers of the Punjab. It is also called the Trimab. Ptolemy called it Sindabal or Sandabilis, but the Greek historians of Alexander called it Akesines. Its source has never been reached by Europeans, but is placed in the high land of Tibet, about lat. 32° 50′ N., lon. 77° 40′ E. near the Bara Lacha pass. The Chandra and Bhaga rise on opposite sides of the Bara Lacha pass which is in lat. 32° 45′ N. and long. 77° 22′ E.—and as their junction form the Chenab, they give also its sanscrit name Chundra-bhaga, or moon garden, which the Ayeen-i-Akbari, calls the Chanderbaka. It runs north-west to Murumurdwun; south-west to its confluence with the Jhelum, thence south-west to the Ghara, or continuation of the Sutlej. Its length to the Ghara is 765 miles. It descends at the average rate of 40 ft. per mile for the first 200 miles. Its estimated elevation at Kishtwar, is 5,000 ft. It receives the Suruj Bhagu Murumurdwun and the Dhark all short streams. It becomes navigable for timber rafts at Aknur. Above Darwas, the Chenab is a rapid, noble river, running through a deep rocky channel.

The portion of the Chenab which passes through the territories of the maharaja of Kashmir is about 200 miles long. From the junction of the Chandra and Bagha at Tandi, in British Lahul, to Aknur, where the river debouches upon the plains, its length is about 300 miles. The fall, according to General A. Cunningham, is 34 feet per mile from Tandi to Kisthawar, and 26 feet per mile from Kisthawar to Aknur. The flora of the upper valley agrees in most respects with that of Kunawar, lower down there is an approach to the vegetation of the outer Himalaya.—*Dr. Thomson's Travels in Western Himalaya and Tibet, p.* 348. *Cleghorn Punjab Report, p.* 134, 153. *History of the Punjab, Vol. I, p.* 10, 11. See Jamu. Khetri. Punjab.

CHENCHALI KURA. Tel. Digera muricata, *Mart.*, also Achyranthes polygonoides ???

CHENCHKA. Beng. Limnochloa plantaginea.

CHENCHWAR. See Chensuar.

CHENDAMALY ALUBEEYUM. Sans. Civet.

CHENDANA. Beng. Hind. Tel. Pterocarpus santalinus.

CHENDANAM. Tam. Sandal-wood. Santalum album. Chendana nunæ. Tel, Oil of Santalum album.

CHENDI. Guz. Hind. Rags.

CHEND-POTLA. Tel. Trichosanthes cucumerina. *Lin.*

CHENDREE or TOONG. Duk. Rottlera tinctoria.

CHENDU PHOOL. Hind. Flower of Parkia biglandulosa.

CHENDURAPA CHETTU. Tel. Rottlera tinctoria.

CHENDURU. Tam. Carthamus tinctorius. Safflower. Chenduruku yennai, Tam. Safflower Oil.

CHENE. Fr. Bark of Quercus. Oak bark.

CHENEBROON. A tree of Akyab used in housebuilding. Grows to a large size, and is plentiful in the Ramree and Sandoway districts.—*Cal. Cat. Ex.* 1862.

CHENEE-KAM. Guz. Hind. Porcelain ; Earthenware.

CHENEVI. Fr. Hemp seed.

CHENGALI GADDI. Tel. Panicum commutatum, *Nees.*

CHENGIZ KHAN. See Changez khan.

CHEMBU NARINGI. Maleal. Indigofera enneaphylla.

CHENI. Tel. Oryza sativa. *Linn.*

CHENJUL. Hind. Nussiessya hypoleuca.

CHENK PURI, also Thungon-Puri, Burm. The elytra or wing cases of the genus Bupрestis, Order Coleoptera. See Beetles.

CHENNA. Hind. Cicer arietinum. *Linn.* This is often called Bengal gram, in contradistinction to Koolti or Madras gram, Dolichos uniflorus.

CHENNANGI. Tel. Lagerstrœmia macrocarpa, *R.*, and L. parviflora, *R.* ii. 505.

CHENNA, also Chinna. Tam. Small. Many towns seem to be called from that word, viz.

Chennampully, in L. 77° 40′ E. and L. 15° 20′ N. Chennapoor, L. 75° 42′ E. and L. 19° 30′ N. Chennaputten, L. 77° 17′ E. and L. 12° 40′ N. Chennar, in L. 77° 19′ E. and Lat. 10° 22′ N. Chennaryanpilly, L. 79° 20′ E. and L. 16° 0′ N. Chenniachutran, L. 78° 0′ E. and L. 10° 27′ N. Chennumputty, L. 75° 45′ E. and L. 11° 42′ N.

CHENNAT NAIR, a forest near Palghat, which at one time furnished a large supply of well grown Terminalia glabra, Pterocarpus marsupium, and Inga xylocarpa.

CHENOPODIACEÆ. An order of plants known as the goose-foot tribe, about 44 species of which occur in the South and S. East of Asia of the genera Chenopodium, Beta, Blitum, salicornia, spinacia, Basella, Salsola, and artriplex, several species of which are used either for culinary purposes or for the manufacture of soda. Garden Orach [Atriplex], Chard-Beet, Beet, Mangold Wurzel [Beta], belong to this order, and soda is obtained from species of Salsola and Salicornia. C. album (Betu Sag.) common in Bengal, is used by the natives as a pot herb : C. laciniatum, an erect annual and C. viride, of which there are two varieties. C. olidum, stinking goose foot, smells like putrid saltfish and exhales ammoniacal gas : it is employed as an emmenagogue and antispasmodic. Various *Chenopodaceous* plants, with grasses of the usual species, are met with in the North of India.—*O'Shaughnessy, page* 523. *Voigt. Eng. Cyc.*

CHENOPODIUM ALBUM. Linn. Roxb.

Khuljeh ke baji,	Duk.	Parupu kire,	Tam.
Bhatwa,	Hind.	Pappu kura,	Tel.
Ructanala,	Sans.	Chakra varti kura,	„

—*Ains. Mat. Ind. p.* 255.

CHENOPODIUM VIRIDE. Rox.

Rockeb el jammel,	Arab.	Betoya,	Beng.
Beto sag,	Beng.	Chawut,	By.

CHENOPODIUM VULGARE.

Goosefoot,	Eng.	Bhatwa,	Punjabi.

This is found in the Sutlej valley between Rampur and Sungnam at an elevation of 7,000 feet. Entirely a rain crop, grows to six feet high, seeds considered nourishing.—*Cleghorn Punjab Report, p.* 66.

CHENSUAR, or Chenchwar, (Suar or Surah) also Chentsu, a wild, half-savage, forest tribe inhabiting the Eastern Ghats of the peninsula of India. They are known to their settled neighbours as the Chenchu kulam, Chenchwar, and Chensuar. They seem to be the people whom Wilson names Chenchu-vadu (vadu, Tel., a man.) They are about 1,200 in number, and dwell in the tract of jungle covering the westernmost range of the Eastern Ghat line, between the Pennar river and the Kistnah, and known locally as the Nulla-Mulla, and the Lankamulla. They inhabit clearings in the forest, live in beehive shape huts like the African, Nicobarian and many of the ruder Asionesian tribes. These are of wicker-work with walls about three feet high, and a conical straw roof, with a screen for a door. The men are almost nude. The women dress like the wandering female basket makers whom they resemble in features. The features of the men are small, but the expression is animated, cheek-bones higher and more prominent than those of the hindus in general, nose flatter, and nostrils more expanded; their eyes black and piercing; in stature they are slightly shorter than their neighbours, and they are slightly, but well made, except about the knee, which is large, and the leg. The colour of the skin is darker, and there seems a tendency to cutaneous eruption. Newbold characterises them as between a Tiling and a Jakun of the Malay peninsula. They have no language of their own, but speak Telugu with a harsh and peculiar pronounciation. Brahmans say they formerly were shepherds of the Yerra Golla caste. They have large dogs, and a few are employed as hill police, in the pass from the Kuman to Badwail. The Nandial Chenchwar assert their ignorance of a god or a soul. They have no images. They are polygamists; they bury their dead, but sometimes burn, and, like the Tartars, the Nandial Chenchwar carry the deceased's weapons to the grave. They use the spear, hatchet, the matchlock, or a bamboo bow and reed arrow tipped with iron. They look on weaving and other manufacturing arts with contempt, and they have in general only a rag for covering. They are patient and docile. It is suggested by Mr. Logan that the Chensuar are a continuation of the wild forest Surah of the mountainous tracts further north in the line of the Eastern Ghats. Vocabularies of six of the non Arian tongues, the Kond, Savara, Gadaba, Yerukala, and Chentsu are given at p. 39, No. of 1856, of Beng. As. Soc. Journal. Newhold in R. As. Soc. Journ. 1865. Logan in Journ. Ind. Arch.—*Newhold.*

CHENSU KARRIR, a migratory race mentioned by Buchanan as residing in the hilly tracts near Coimbatore. They are described as without houses or cultivation, but by snares, or with the bow, catch birds or large game which they dispose of for rice; the white ant is said to be used by them for food. They approach their game under the shelter of a cow or buffalo, which they have taught to stalk. Their language is a dialect of the Tamil with a few Canarese words intermixed. Those near towns learn the use of Telugu words. A Tamil man is unable to understand their language. A few reside in little huts outside, on the outskirts of villages, and have a little blanket, but their ordinary clothing is a loin cloth, and in the denser forests they dwell in caves or hollows of trees, or under the shelter of a hut made of branches of trees, and use only a few leaves for covering. They describe the Animali as their original country. *Buchanan.*

CHENVUKOTTI. Mal. A coppersmith.

CHEONTI. Hind. Ant. Eng.

CHEPANG, Haiyu and Kusundu, three uncivilized Bhot tribes who reside amid the dense forests of the central region of Nepal, to the westward of the great valley; they dwell in scanty numbers, and nearly in a state of nature. They have no apparent affinity with the civilized races of the country, but live in huts made of the branches of trees, on wild fruits and the produce of the chase. The Chepang are slight, but not actually deformed though with large bellies. Mr. Hodgson says they are of Mongol descent. Their language is akin to the Lhopa. The Chepang, Haiyu, and Kusunda, seem to belong to the Rawat group of frontier populations. They are named by Mr. Hodgson, the Durre, Denwar and Brambo, which Mr. Latham believes to be the same as Tharu, Dhungur, and possibly Rawi, but more likely Dher, Dungar and Brahman. They occupy the districts where the soil is moist, the air hot, and the effluvia miasmatic. Nothing is known of their language.—*Latham.* See India, 311, 317.

CHEPATI. Hind. Cakes made of wheaten flour and water or milk, and baked on the girdle. They form the principal article of diet of the hindoos of North-western India and of the rajpoot races.

CHEPOOROO VALELLOO, a grass grown in Kimedy, from the roots of which neat table mats and teazing brushes are made. At the Madras Exhibition of 1855, a few neat table mats were exhibited from Kimedy, and some teazing brushes made from the roots of this grass, such as likely to command a ready sale, if they could be brought prominently to notice. The botanical name of the plants from which they are made is not yet ascertained.

CHEPPU TATTA. Tel. This term is applied to several plants, Desmodium polycarpum, *D. C.* Hedysarum purpureum, *R.* iii. 358. Coldenia procumbens, Asarum Europeum and Elytraria crenata.

CHEPU-NARINGI. Tam. Indigofera enneaphylla. *Linn.*

CHEPU-TATAKO. Tel. Asarabacca.

CHER. Hind. of Chenab, Armeniaca vulgaris. Apricot.

CHERA. Thalictrum foliolosum.

CHERA, an ancient dynasty in the south of the Indian peninsula, the rise and fall of which, as also the extent of their dominions, are only vaguely known. They seem to have risen on the fall of the Pandya sovereignty, and to have ruled over Travancore and Coimbatore, and parts of Salem. See Kerala, Narapati, Pandiya.

CHERAITA, Hin. The name given to the stalks of several Indian plants, all of them valuable bitters, equivalents of gentian, obtained from the genera Ophelia, Exacum, Adenema and Andrographis (Justicia). The properties of the Indian species of Gentianeæ, with the exception of two or three of the Himalayan ones, do not seem to have been largely investigated.—*Dr. Cleghorn Ed. New Phil. Mag. No.* 6 *of April* 1856. See Chiretta.

CHERAKEN. Jav. Croton seed.

CHERAMBOLA. Port. Cicca disticha.

CHERAMELLA, or HARRI-PHAL. Beng. Cicca disticha.

CHEREMIN. Malay. Cicca disticha.

CHERAM PERMAL, an ancient sovereign from whom all the royal races of Malabar claim descent, and who is supposed to have built Calicut.

CHERAN, the name of the Chera race, who ruled at Kerala on the Malabar coast. See Chera.

CHERA PUNJI, a town and hill station in the Khassya hills, 360 miles from Calcutta. See Cherra-punji.

CHERIBON, or CHERIMAI. A mountain, in lat. 6° 54½′ S., and long. 108° 28¼′ E. in the north of Java, is 10,323 feet high. —*Horsburgh.*

CHERIKER BODI. Tel. Saccharum officinarum. *Linn.*

CHERIMELLE. In Japan, this fruit is pricked all over with a needle, and laid in water. For use it is boiled up with sugar, and kept with syrup in glass bottles. These fruits are often eaten with tea. They are sometimes eaten unripe with a little salt, and may, likewise, when in that state, be preserved in salt. Sometimes they are eaten ripe, and have then a subacid taste.—*Thunberg's Travels, Vol.* II., *p.* 292 *and* 293.

CHERIVELU. Tel. Hedyotis umbellata. *Linn.*

CHERKUSH. Hind. Prunus Armeniaca.

CHEROMAR, a slave race of Malabar, who follow the rule of Maruma Katayan. See Polyandrya, p. 108.

CHEROO, aborigines in Ghazeepur, a part of Gorukpur, the southern part of Benares and Mirzapur and Behar. They are sometimes said to be a branch of the Bhur. They seem to be the same as the Sivira or Seoree, but Buchanan considers them distinct. The Cheroo declare themselves to be descended from the great serpent, from which they may be supposed to be the Nagbunsi of Magadha. Remains of buildings attributed to them, are found near Buddha Gya, Sasram and Ramghur, and the images of Siva and Hanuman found in them indicate that they belonged to the hindu religion. They appear to have been expelled from their ancient abodes by the Pramara of Bhojpur, the Hyobun of Hurdi, and the Bhoonhar, a little before the first mahomedan invasion, about which time there seems to have been a general convulsion in India, during which several tribes acquired their present possessions. The features of the Cheroo are said to resemble the occupants of the Vindhya mountains. They live by cutting timber, collecting drugs, and killing game, and though their numbers are very low, they continue to create a rajah for every five or six houses, and invest him with the tilah in due form. The emperor Sher Shah subdued Muharta, a Cheeroo zemindar of Behar, which seems to have been a last but strong effort of the Cheeroo. The chief of Singrowli in Mirzapur is a Cheeroo, though he calls himself a Ben-bans. Sir. H. Elliot suggests that the Sivira, Seori and Cheroo, may perhaps be the Sauraseni. In the Harivansa is the following passage. " From this race came the Sauravira, and Saurasena. The great king Saurasena has given his name to the country over which he reigned."—*Elliot. Glos.*

CHEROOAH GHAUT, in L. 74° 0′ E., and L. 24° 48′ N.

CHEROOKA. Tel. Saccharum officinarum.

CHEROO-MUTI. Beng. Amarantus polygonoides.

CHEROOPU, also Chupatu. Tam. Shoes

CHEROOTS. The dried leaves of the tobacco plant, formed into small rolls for the purpose of smoking. Havannah cigars are usually reckoned the best in Europe. In India, Manilla cigars are most esteemed. Imitation Manillas, Chinsurah Cheroots, Lunkah, Dindigul, and Trichinopoly cigars are the chief kinds manufactured in India.—*Faulkner.*

CHEROTANNY. Tam.? A light coloured wood of Travancore, used for firewood.

CHERRA GADAN. Tel. Indigofera enneaphylla.—*Linn.*

CHERRAPOONJI, a sanitarium in the Khassya hills, in l. 25° 14′ 2″ N. and L. 91° 40′ 5″ E. about 4118 or 4125 feet above the level of the sea. It is 40 miles north of Sylhet and 60 miles south from Gowhatty. The principal race in the neighbourhood are the Khassya, able bodied people, who differ little from the Garo. They are arranged in petty rajahships in the Khassya hills. They build their houses on piles, they trap fish like the people of Borneo, Java, and Sumatra. They dread snakes, and Nat worship seems their peculiar culture. They distil and drink intoxicating liquors. At a place between Ringhot and Cherrapunji, and at other places in the hills, are bridges made of the fibre of the India-rubber tree, as described by Captain Yule. This race inter their dead in places where they erect oblong pillars, hewn or unhewn, three to thirteen in number. The climate of Cherrapunji is suited for a sanitorium. Colonel Watson described it in Bl. As. Trans. 1834, vol. iii. 25. Fall of rain at Cherrapunji has amounted to 600 inches. The average fall for August 200 inches. In 1841, 264 inches fell; occasionally 20 inches fall in twenty-four hours.—*Bl. As. Trans.* 1844, *vol.* xiii., 614. *Dr. Buist's Catalogue. Latham.* See Cairns. Cherapunji.

CHERRIES. See Cherry ; Fruits.

CHERRO CANNY. TAM.? A light brown coloured wood of Travancore, only used for firewood.—*Col. Frith.*

CHERRO NALMAPELLA, TAM.? A light brown coloured wood of Travancore, specific gravity 0·483, used for making canoes.—*Col. Frith.*

CHERROPOONA. TAM.? A dark coloured wood of Travancore, used for building houses. —*Col. Frith.*

CHERROTIMBA. TAM.? A dark coloured wood of Travancore, specific gravity 0·843, about three feet in circumference, used for house-building, tools, &c.—*Col. Frith.*

CHERRO VUNJEE. TAM.? A Travancore wood of a brown colour, specific gravity 0·644, used for firewood.—*Col. Frith.*

CHERRU. TEL. A tank.

CHERRU NARRANGE. MALEALUM. Citrus aurantium.

CHERRU PINAKOTTE. CAN. MALEAL. Calophyllum calaba.

CHERRY. ENG. The fruit of the Prunus cerasus. The bird cherry, Prunus padus, occurs in the Punjab, the N. W. Himalaya, and Afghanistan. It has a mawkish taste. See Fruit, Kabul, Prunus.

CHERRY. ANGLO-TAM. and TELUGU, for Cheri, a terminal word for a village or town, as Tellicherry.

CHERRY COAL. See Coal.

CHERRYE. Two towns, one in l. 72° 49′ E., and l. 26° 47′ N. The other in l. 70° 31′ E., and l. 23° 7′ N.

CHERRY LAUREL. Cinnamomum cerasus.

CHERRY-STONE OIL. Oil of Prunus cerasus.

CHERRY TREE of Norfolk Island. The bark of this tree is used for tanning, and it furnishes one of the most useful woods. It is decreasing rapidly by being stripped of its bark, and so left to perish.—*Keppel's Ind. Arch., Vol. II., p.* 282.

CHERSYDRUS. A genus of sea snakes, of which two species, C. annulatus and C. granulatus, occur in the sea at Madras. See Hydridæ.

CHERT. A quartzose mineral.

CHERU. CAN. Marking nut.

CHERU. See Cheroo.

CHERUCHIMDA. MAL. Solanum indicum. *Linn.*

CHERUKU, also Cherukulo bhedam. TEL. Saccharum officinarum, *L.*—*R.* i, 327. The SANS. Syn. is *Pundarika*, a variety of the sugarcane.

CHARUMAN, a class of predial slaves in Malabar, whose name Wilson derives from Chera, *Maleal,* the soil. General Briggs names a non-Aryan race Cherumar.—*Wils. Briggs.*

CHERU PINNAY. TAM. Calophyllum spurium.

CHERU-PUNA in Tamil and Malayala, is the small-leaf poon. This wood is the real mast poon, which is preferred for the masts of ships or vessels. Peon, or Puna, consists of five sorts, all of which are similar in shape and growth ; the large sort is of a light bright colour, and may be had at Mangalore, from the forests of Corumcul, in Canara, where it grows to a length of one hundred and fifty feet. At Mangalore, Mr. Edye procured a tree of this sort that would have made a foremast for the Leander, sixty-gun ship, in one piece, for the sum of 1,300 rupees, or £149 sterling. Poon grows in the forests of Cochin and Travancore, but it is of a very inferior quality to that before stated ; one sort is named the Karapa Puna, which is dark poon ; and Malai Puna, meaning the hill poon ; and another sort, the Vellai Puna, or the white poon; this sort is small, not more than twelve or eighteen inches in diameter, and eighteen or twenty feet long. In Canara, another sort, named Merchie Puna, grows to twenty-eight inches or three feet in diameter, and from thirty to fifty feet long ; and is very much like American birch. It is generally defective and not durable ; consequently, it is never brought from the hills for, when felled, it opens and splits at the top and but, for many feet in length. The weight of the poon may be said to be from forty to forty-eight pounds the cubic foot ; but the lightest he met with was thirty-four and three-quarters, and the heaviest fifty pounds the cubic foot when dry. The leaf of this tree is small and oval, about two by one and a half inches broad, and the fruit grows in bunches ; it is about the size of coffee-berries ; from this the natives extract oil, which is used for various native purposes.—*Eyde, M. and C.*

CHERVIL. Chærophyllum sativum. The leaves are used in soups and salads.

CHESNEY, General, an Officer of the Royal Engineers, who, under the orders of the British Government, in the years 1835, 1836, and 1837, conducted the Expedition for the Survey of the Rivers Euphrates and Tigris.

CHESNUT OF CHINA. Southwellia balanghas.

CHESNUTS. Eng.

Chataignes,	Fr.	Castagne,	It.
Kastamen,	Ger.	Castanas,	Sp.

The fruit of the Castanea vesca of Europe.

CHESNUT TREE. Ormun, Heb.

CHESS. The Shatranj of the Persians is supposed to have been invented by a brahman who succeeded the dynasty in Sindh.

CHEST—of opium weighs 141½ lbs. with lbs. 1½ tare, chest of Pekoe tea 7 catties of Souchong, and Pouchong 25, and of hyson 60. Bengal indigo lbs. 260.—*Simmonds.*

CHETAKUM KURRA. Tel. Chickrassia tabularis.

CHETAN. Mal. On the Malabar coast a man-servant, a slave, a weaver of a particular caste.—*Wilson.*

CHETANA SWAMI, a hindu religious teacher, the preceptor of Baba Lal, who founded the Baba Lali sect.

CHETCHINZI, or Tchetchinzki are tribes who were considered the most formidable of all those which inhabit the innumerable rocky valleys of the eastern line of the Caucasus. Their predatory excursions, whether in large or small bodies, were not only a dread to their own immediate neighbours, tribes like themselves, though of less extent and power; but their sudden descents, ambuscades, and continued warfare, kept the disciplined Russians constantly on the alert. These lords of the mountains seemed never to rest, day nor night. Unwearied in their watch for prey, like lightning in attack, for they struck, or were lost to sight as quickly. As the mahommedan was the last religion attempted to be introduced amongst these people, they suppose themselves to be good mussulmans. But they have not any knowledge of its doctrines. They have no priests of any kind; hence their marriages are mere domestic contracts, agreed on between the parents of the parties. The bride always brings a dower, consisting of cattle, &c., proportioned in value according to the wealth of her family. She is brought home to the house of her betrothed husband, and then the ceremony is completed by dancing, drinking, and carousal. From the custom of the sons never migrating from the paternal spot, families, from one stock, increase from single sheds to considerable villages. Each habitation of these people is separated into three divisions: one for the women, another for the men, and a third for the horses and other cattle. The whole little establishment is then encircled by a fence of wicker-work, or stones.—*Porter's Travels, Vol. I., p 62.*

CHETEK, a climbing vine of Java, the sap of which is poisonous.—*Bikmore,* 53.

CHETI ANAPA KAYA, Tel. Lagenaria vulgaris, *Ser.—var.* wild or bitter kind.

CHETI BIRA. Tel. Luffa amara, *R.*

CHETI BUTA. Hind. Abelia triflora.

CHETI POTLA. Tel. Trichosanthes cucumerina. *L.*

CHETIPPA, Tel. Hymenodyction excelsum, *Wall.*

CHETKA. From this town to Neilung, on the Jankee or Jannubee branch of the Ganges, is the lofty pass of Chungsakhago, not under 18,000 feet. See Kanawar.

CHETKOOL. From this place to Burasoo in Gurhwal the road leads over the Sungla pass about 16,000 feet high. See Kanawar.

CHETOR. See Badul, Chittore.

CHETRI. Amongst the hindu a cenotaph.

CHETRIYA. Commonly pronounced k'hetri, in the hindu castes, comprises rajas, or princes, and soldiers: all the other tribes, however, furnish soldiers; and, indeed, princes too, if the ambitious individual can effect it. "The natural duties of the Chetriya are bravery, glory, fortitude, rectitude, not to flee from the field, generosity, and princely conduct."—*Gita, ib.* See Chhatriya.

CHETTI. Tel. Chettia, a Vesya hindu, plural Chettiar; the social distinctive term applied to the Teling Vesya caste in Southern India. It seems to be identical with the Seth or Shet, an honorific term for the Parsi and Borah.

CHETTU. Tel. A tree.

CHEUNAKA. Sans. Cicer arietinum.

CHEVA CHETTU, or Mranu, Tel. The timber called red wood.

CHEVICUM. Maleal. Piper nigrum.

CHEVIKAM. Malay. Piper nigrum.

CHEVUKURTI CHETTU. Tel. Slevogtia verticillata, *D. Don.* Gentiana ver. *R.* ii. 71. Adenema hyssopifolium, *W. Ic.* 600.

CHEVULAPILLI TIGE. Tel. Ipomœa Pes-capræ, *Sweet.* The name signifies 'Hare-creeper.'

CHEWA. Hind. Ephedra Gerardiana.

CHI. Guz. Hind. Cubebs.

CHIA KAI. Maleal. Pods of Acacia concinna.

CHIAN and Cyprus turpentines, gum resins, products of a pistacia. See Gums.

CHIBH. A tribe lying south of Kashmir,

but little reclaimed from barbarism either by hindu or mahomedan conquerors.

CHIBOW, a resin of America. See Balsamodendron.

CHICACOLE, a town in the Northern Circars, on the eastern side of the peninsula of India. In November 1753 M. Bussy obtained it for the French Company, but it was afterwards ceded to the English. The sea face of the mountains in this district does not contain any tree vegetation, which can be denominated timber. The Northern Circars consist of the four provinces of Mustafanaggar, Ellore, Rajamundry and Chicacole. They were ceded to the French in 1753, and to the English E. I. Company in 1759. They contain the important towns of Ganjam, Chicacole, Vizianagram, Vizagapatam. Coringa, Yanoor, Masulipatam, Ellore and Nizampatanam. It runs from the Chilka Lake to Motapilli, along 470 miles of sea coast, with a breadth of from 70 to 100 miles of low country, an area of 17,000 geographical miles watered by the Kistna, the Godavery and Gondecama.—*Dr. Cleghorn's Report.*

CHICALDAH, a hill-station in Berar. See Chikuldah.

CHICANE is the game of Chougan, once universally practised throughout Persia, and formerly often played on a level piece of ground near Shiraz. As a game on foot, we have it in the cricket of England, the Golf or Gough and Shintey and hockey of Scotland, and the Hurling-matches of Ireland. Pietro della Valle (Viaggi, Lettera de Casvin 25 Luglio 1618) discovered it in the Florentine Calcio. Ci' e solo questa differenza tra il giuocho de Persiani e 'l calcio de Fiorenti, che i Fiorentini giucano con molta gente a piedi &ca; Ma i Persiani, piu nobilmente giucano a cavallo. Sir William Ouseley sees the name Chugan appear, but slightly disguised, in the chicane of Languedoc, where the game is played as in Persia, with a wooden ball and a club headed like a mallet or hammer.—*Ouseley's Travels. Vol. I., p.* 346. See Chougan.

CHICCORTIE, in L. 77° 41′ E., and L. 17° 50′ N.

CHICHAMBA, in L. 76° 35′ E., and L. 19° 50′ N.

CHICHEROULY, in L. 77° 20′ E., and L. 30° 15′ N.

CHICHERRY, in L. 84° 14′ E., and L. 23° 25′ N.

CHI-CHIA. HIND., also Pudma and Purpinja, HIND. Juniperus communis.

CHICHINDA, HIND. Trichosanthes anguina.

CHICHINGA. TEL. Trichosanthes anguina. Snake gourd.

CHICHOLY, in L. 77° 48′ E., and L. 22° 1′ N.

CHICHONDA. DUK., or Chichunda HIND. Trichosanthes anguina.

CHICHOOLAH, in L. 78° 18′ E., and L. 19° 9′ N.

CHICHOOLY, in L. 77° 58′ E., and L. 21° 20′ N.

CHI-CHOU, and Chi Hsien are district magistrates in the province of Kwang-Tung in China. See Kwang Tung Chi.

CHICHRA. HIND. Butea frondosa.

CHICHRI. HIND. Plectranthus rugosus.

CHICHRU, the Himalayan nettle.

CHICKRASSIA TABULARIS. AD. JUSS. Swietenia chickrassa, *Roxb.* ii. 379. *Ainsl.*

Chikrassi	BENG.	Deodar	ENG.
Pudha of	BOMBAY.	Pubha	MAHR.
Yimma	BURM.	Pabba	„
Zimma	„	Hool	„
Dul mara	CAN.	Aglay maram	TAM.
Dal mara	„	Chittigong chettu	TEL.
Bastard cedar	ENG.	„ karra	„
Chittagong wood	„	Chetakum „	„
Cedar	„		

This tree occurs in the mountainous countries to the east of Bengal. It was discovered by Mr. Nimmo on the Toongur Hills in 1838. It occurs in Chittagong, also in Coimbatore, &c., where, in common with one or two other light red-coloured woods, it currently passes under the general name of cedar or bastard cedar, and all are extensively employed in cabinet making. This has quite a cedar-like smell. The wood is well known in Madras and easily procured, and is extensively used in cabinet making, coming under the denomination of "Chittagong wood," being imported from that province, though it is abundant in the mountainous parts of the peninsula. It is close-grained, light coloured and delicately veined, makes beautiful and light furniture, but is apt to warp during the season of hot land winds. According to Dr. Gibson, it is a fine straight-growing tree, rather common in the southern jungles of the Bombay Presidency, but much less so in the northern. Its wood could easily be creosoted. It is valuable for cabinet and house purposes, and is used in the Madras Gun Carriage Manufactory to make plane tables and for furniture work. It furnishes one of the Deodars of Malabar. It is found also in Canara and Sunda, in the tall jungles near and on the Ghats, particularly at Gunesh Good. Wood there whiter, but tough and close grained; and, from its general situation, it is hardly known to the carpenter. It grows in the warmer parts of Ceylon. Dr. Brandis tells us that there is scattered throughout the forests on elevated ground in British Burmah (large trees are scarce) a tree either indentical with "Chittagong wood" or nearly related to it. A cubic foot of it weighs lbs. 24, and in a full grown tree on good soil, the average length of the trunk to the first branch is 80 feet and average girth measured at 6 feet from the ground is 8 feet. This wood was not known to Mr. Rohde as a product of the Northern Circars, but was imported there among the "Chittagong woods." Beautifully veined and mottled pieces, he says, are occasionally met with, but its complaints during the season of the hot winds and dry northerly winds of November and December, in the Northern Circars, render articles made of it, containing wide planks and framing, as armouries, very disagreeable bed-room companions. The Chittagong-wood, he adds, is used at Madras for all purposes for which ordinary mahogany would be used in Britain, as furniture, panels of carriages, &c ; and one variety is sufficiently tough to be employed for felloes of wheels. Mr. Rohde concludes that all the woods imported under the name of "Chittagong" is not the produce of the same tree, the only wood of the Circars at all resembling it is the "Pinna ayeinpa" of Ganjam and northern parts of the Vizagapatam districts. Indeed, it would be difficult, so far as his recollection enables him to state, to distinguish one from the other, though he believes it to be from a species of neem, Melia azaderachta. These remarks will show that the wood of the Chickrassia tabularis enters the market indiscriminately, as one of the cedars, bastard cedars, deodars, and Chittagong woods ; and that several woods are known in the market under the name of Chittagong wood, though seemingly all possessing a similarity of character which prevents them being distinguished, but allows of them all being used for one another. The bark is powerfully astringent.—*Mr. Rohde. Roxb.* ii. 379. *Drs. Gibson, Wight, Cleghorn, Brandis. Voigt* 137. *Thw. En. Pl. Zeylan.* i. 61. *M. E. J. R. O'Shaughnessy, p.* 250.

CHICKUN, also Chickun dozi. HIND. Plain embroidery. That in use for European families is usually called "work" or Chikkan work. It is a large branch of muslin work of India.

CHICORY, Cichorium intibus. The root of this plant is, in Europe, largely employed to adulterate coffee.

CHICUDA. CAN. Phaseolus max.

CHICULDAH. See Chikuldah.

CHIFFES, Drapeaux, Drilles. FR. Rags.

CHI-FU, Chi-le-chow and the Chi-l-tung-chi are the prefects of the province of Kwang-Tung. See Kwang-Tung-chi.

CHIGRI. CAN. Antelope cervicapra, *Pallas.*

CHIHE. HIND. A division of the Gujar tribe.

CHI HSIEN. See Chi-fu ; Kwang-tung-chi.

CHIH'RA. HIND. The countenance, a descriptive roll.

CHIHRA-NAVESI. HIND. Taking a descriptiva roll.—*Elliot. Wilson.*

CHIIDRON CHANDANA, also Malayaja. SANS. Sandalwood.

CHIJAKRI. HIND. Podophyllum emodi.

CHIJLA. HIND. Fraxinus xanthoxylloides.

CHIK. TAM. A screen made of rattans, suspended in India outside of verandahs, over doors or windows, to keep off the glare of the sun's rays. The chik is often made of strips of split bamboo, also of grass, or of the khus-khus grass, the Anatherium muricatum ; the Arundo donax, the Saccharum sara and S. spontaneum are also largely used for the chiks of houses.

CHI-KAI. TEL. Acacia concinna, *D.C.* Acacia rugata, *Buch.*

CHIKAN. HIND. Euonymus fimbriata.

CHIKAN. HIND. PERS. Embroidery, flowers worked in silk, muslin or cotton, on a cotton ground. See Chikun.

CHIKARA. DEKH. HIND. Antelope quadricornis, *Blain.* A. Arabica, *Hemprich.* A. sub-4-cornutus, *Elliot.*

CHIK-CHAK. Ptyadactylus gecko, a lizard of Labuan. It is very domestic, like the Chaplak of India. It is said to be luminous on occasions.

CHIKATI MRAKU or Tamalamu. TEL. Xanthochymus pictorius? *R.*

CHIKAYA or Sikaya. TEL. Acacia concinna, *D. C.* Mimosa con. *R.* ii. 565. A. rugata, *Buch.* The tender acid leaves are eaten in curries and the skin of the ripe legume is used like soap to cleanse the hair.

CHIKI. HIND. Gouffeia holosteoides.

CHIKILINTA GADDI. TEL. Panicum verticillatum, *L.*—*R.* i. 301. The rapid growth of this beautiful grass has given rise to the common saying *Chikilinta aiswaryam*, lit. "grass like riches"—come and go.

CHIK-KA BHAIRA. CAN. In Mysore, a variety of rice. See Oriza sativa.

CH'IKKI. HIND. A hand-mill, a quern. *Elliot.*

CHIKKUDU CHETTU, Lablab cultratus, *D.C.*—*W.* and *A.* 773; *Ic.* 203. Dolichos lignosus, *R.* iii. 307.

CHIKMAK. HIND., or Chakmak. Flint, the flint of a gun.

CHIKNA-KALR. HIND. A kind of soil used to remedy kalr or reh.

CHIKNI or Chikri, HIND. Buxus sempervirens.

CHIKNI-MATTI, HIND. Clay, fire-clay

CHIKRASSI. BENG. Chickrassia tabularis.

CHIKRI. Buxus Nepalensis.

CHIKSA. A perfumed powder composed of a variety of odoriferous substances, generally mixed up, when used, with sweet scented oil (phoolail ka tel).—*Herklots.*

CHIKULDAH HILL in lat. 21° 9′ N., and long. 74° 59′ E. A table-land near to and somewhat higher than the fort of Gawilghur: Gawilghur is situated in about l. 21° N., and l. 77° E., and its height above the plain is 2,300 feet; thus it will be 3,600 feet above the level of the sea, since this part of the Berar valley is 1,300 feet above the sea. Chikuldah, elevated 3,750 feet, is on the Vindhya, or as some call it, the Gawilghur range of hills, and about 20 miles from the cantonment of Ellichpoor. The plateau of Chikuldah is not above three-quarters of a mile broad, and about a mile in length. The more gentle scenery of a vast sylvan tract is seen away towards the north, covered with high grass and forest trees. Good roads have been made along the irregular plateau commanding fine views of the neighbouring country. From November to the end of June, a total of eight months, the mean temperature was 71°. The hottest months were April and May, giving a mean of 83°. The coldest months were January and February, having a mean of 59°. Thus producing between the hottest and coldest months, a range of 24°. The coldest day observed was the 9th of February at sunrise, being 47°. The hottest day noticed was on the 27th April, at 2 P. M., being 96°. Between the extremes of heat and cold, there was therefore a range of 49°. The greatest monthly range was 14° in November. The greatest diurnal range was 22° in April and May; the least diurnal range was 4° in February and 5° in June. The wet bulb thermometer during the hot months, had an average depression of 10°. The thermometer averaged a general range of about 10° below the temperature of Ellichpore. The rains cease about the middle of September, heavy dews then occur until the cold weather begins, and also from February to the rains. At this period the moist atmosphere is bright and transparent, but becomes hazy as it gets less dense towards the hot weather.—*Captain Bond.* See Sanatoria.

CHIL, also Chir, in the N. W. Himalayas, are the generic terms for the genus Pinus, and P. excelsa and P. longifolia are so named.

CHILA. HIND. Casearia tomentosa.

CHILAGADA DUMPA, or Genusu gadda and Mohanam. TEL. Batatas edulis, *Ch.* Convolvulus batatas, *R.* i. 483. About Vizagapatam, a species of Dioscorea, D. fasciculata, *R.* iii. 801 is cultivated under this name. It seems to be only a variety of D. aculeata.

CHILAKA DUDUGA. TEL. Guatteria suberosa, *Don.*—*W. and A.* 37. Uvaria sub. *R.* ii. 667; *Cor.* 34. Also Unona discolor *Vahl.*—*R.* ii. 669.

CHILAKA TOTA KURA, Amarantus fasciatus, *R.* iii. 609.—*W. Ic.* 717.

CHILAN. HIND. From Chilna, HIND., to go, a way bill of the post office, &c., a list of contents, a clearance; written Chillawn.

CHILAONI. HIND. Current coin.

CHILAS. This country is bounded on the north by the Indus river, on the south by the watershed of the ridge over Looloosur Lake, on the east by the watershed of the same ridge as above Looloosur Lake culminating in the lofty peak of Munga Parbut; the Astor boundary marches with Chilas here, on the west to a point beyond the village of *Sazeen,* where the Indus takes a turn to the south-west. Chilas affords good pasturage but lies under snow for a considerable portion of the year. The Sheen claiming an Arab descent are the proprietary and governing class. Crime is rare, women have more liberty and power than among mahomedan tribes, and breaches of chastity are punished by death. They were visited in 1866 by Dr. Leitner at the request of the Bengal Asiatic Society. Their language seems distinct from Pushtoo, Persian and Hindi, and is not understood by their neighbours the Syud race, who inhabit Durreil and Tankeer to the west of Ghilghit. According to their own traditions, the inhabitants of Chilas were conquered about the middle of the 18th century, and converted to the mahomedan faith. Up to about 1840, the Kahghan Syuds received quantities of gold dust as religious dues from the people of Chilas, but when the Syuds, aided by the Sikhs, failed in an attack on Chilas, the dues were abandoned. A second attack by the Sikh nation was successful, and a small annual tribute of 3 tolahs of gold dust and 100 goats is paid to the Cashmere durbar.

CHILASSI TAMAKU. HIND. Nicotiana rustica.

CHILAW, in l. 79° 57′ E., and l. 7° 38′ N.

CHILBILLA, a town in India in l. 81° 57′ E., and l. 25° 56′ N.

CHIL BINJ KA JHAR. HIND. Strychnos potatorum. Clearing nut tree. The clearing nut is the Chil-binj: phal is the fruit, and lakri the wood.

CHILBURRY, in l. 89° 20′ E., and l. 26° 43′

CHILCHIL. HIND. Celosia argentea.

CHILDREN are greatly longed for by all the races inhabiting the south and east of Asia. One prevailing feeling regarding them is such as is expressed in Psalm cxxvii. 4,5, "as arrows are in the hand of a mighty man, so are the children of the youth. Happy is the man that hath his quiver full of them, they shall not be ashamed, but they shall speak with the enemies in the gate," for most persons will hesitate to attack a large united family. Amongst hindus and Chinese, with whom spirit-worship largely prevails, sons are particularly longed for, in order to obtain from them duties to the manes of their parents. The eastern custom of nursing a child from the hip or side, as in Isaiah lx. 4, is still continued, and a child born after vows, is still as in Proverbs xxxi. 2, called the son of a vow. As in Genesis xxv. 6, the children of mahomedans, born of a wife of humbler birth, or of a harm woman, are not deemed equal in social rank to the children of a high-born wife. Infanticide is still continued amongst certain rajpoot races, but the causes are not for fulfilment of any vow or from any religious duty, but pride or poverty induce them to destroy their female children, and many rajpoot tribes have the utmost difficulty in obtaining wives. The Chinese have complete power over their offspring, even to life, but in no country of the south-east of Asia is the sacrificing of children, on religious grounds, continued; though, down to comparatively recent historic times, the Phœnicians, Carthaginians, Aramæans, Syrians, Babylonians and even Israelites, and their neighbours on both sides of the Jordan, sacrificed their children with the hoped-for object of averting any great and serious misfortune. A Phœnician legend is of El, the strong, offering up his son Yedud or Yedid, the beloved. El being the Kronos. (*Bunsen*, iii. 286.) Malekh Bel was the same as the Tyrian Hercules, or Moloch or Bal-Moloch, to whom, as also to Hecate and Melekhet Artemis, dogs were sacrificed. In Babylonia (Is. lxvi. 3, Ez. xiii. 13, xxxiv. 20) their neck or backbone had to be broken unless redeemed. The principal sacrifices offered to Hercules Usoo, as well as to his mythical companion, were human beings, which in Laodicea of Phœnicia might be ransomed by a doe. At Carthage, the practice of sacrificing their favourite children, and those of the highest rank in honour of Hercules, continued down to their latest wars. The legend of the Grecian Hercules is that he became insane, burned his own children, as well as those of his twin brother Iphicles, and murdered his guest Iphitus. *Bunsen* iv. 212, 213. See China. Harm. Infanticide. Rajpoot.

CHI-LE-CHOU, and Chi-le-tung-chi, prefects in the Chinese province of Kwang-tung.

CHILGHOZA. HIND., corruptly Galghoza, the nuts or seeds from the cones of the edible pine, Pinus Gerardiana; in Hazara and elsewhere, the seeds of the common Chil, P. excelsa and P. longifolia, are so called.

CHILIIUTTY, in l. 81° 41′ E., and l. 20° 17′ N.

CHILI or Chillas, HIND. Juniperus excelsa; J. arborea, Pencil cedar.

CHILIANWALAH, a battle was fought here on the 13th January 1849, between the British in India and the Sikhs, where 14·2 per cent. of the British soldiery fell in the action. It lies between the Chenab and the Jhelum rivers.

CHILI STRAWBERRY. Strawberry.

CHILIVA. HIND. The "Indian Bleak" of N.W. India, a lonely little fish seldom reaching more than 2 or 3 ounces; he is active, playful, and ravenous; his appearance like new silver (the scales being used in making false pearls) and he ranks among the most delicate at table. In many parts of Northern India enthusiastic Lady Anglers with a long graceful wand, "*whip*" for him with great success, on fine clear evenings, near the cold season, with tiny midges, of rainbow hue, begirt with *gold tinsel. Five pounds weight* and more of these pearly playthings have been the reward of a lady party on one evening, caught without much exertion from a boat and under the shade of contiguous *Topes* and groves along the "Raptee." Besides the artificial fly, the chiliva greedily seizes everything from a mosquito to a butterfly,—and a grub or flesh maggot, a bit of paste, or a large grain of tough rice are equally good. He is essentially a *surface* fish,—active and cleanly in his predilections; of a delicate constitution, he soon dies after handling, especially if he has been hooked,—the casting net is the proper *modus operandi* to get stock fish for a water and the supply should be kept *very few together* or they will rapidly die. Earthen pans carried on a pole across a man's shoulder by night are best: this fish is *very prolific*, but his enemies are abundant in proportion. From his surface habits he falls an easy prey to the ducks, fish hawks, kingfishers, snakes, turtle, &c. To feed them or cause them to congregate, burn a little ghee, or fat in a pot over the fire and when it begins to smoke, empty out the contents on the pool or lake, and you will soon see the *Chiliva* bunting this new food on the surface;—coarse flour slightly melted and thrown in will also attract a great number, the casting net thrown on the spot will astonish you with its silvery load. The Indian Angler prizes the little *Chiliva* beyond all his conferes, for he is the shining *bonne bouche* which when properly spun on a first class rapid tempts the majestic *Mahseer* of discreet 50 to 100 lbs. from all his propriety, or seduces the golden eyed *Bokhar* of 20 to run a wreck. In those parts, too, he is rare. Extermination has been his unavoidable fate, and one has walked miles oft in vain for his sake, and fruitlessly offered rewards for his apprehension with the view of offering him as a sacrifice to some "Monarch of the Pool" who refused to be "at home" for any smaller dainty.

CHILKA LAKE, a marine lagoon in the Ganjam and Cuttack districts on the north-western side of the Bay of Bengal. It bounds the Northern Circars on the north. It seems the result of the breach of the sea over a flat sandy shore, whose elevation is something above the level of the country within. Pulicat lake appears to have the same origin. Each of them communicates with the sea by a very narrow but deep opening, and are shallow within. The Chilka lake is about 40 miles in length from N. E. to S. W., and in most places 12 or 15 miles wide.—*Rennell's Memoir*, p. 242.

CHILKEEA, in l. 79° 5′ E., and l. 29° 22′ N.

CHILKI. Hind. A rupee of Kashmir, value ten annas.

CHILKORE, in l. 86° 58′ E., and l. 21° 58′ N.

CHILLA, a holy place where a fakir sits, so called from the initiatory Chilla (40) days' abstinence. It is also known as a fakir's takia. —*Elliot*.

CHILLA. Hind. Casearia tomentosa.

CHILLA CHETTU, or Indupu Chettu. Tel. Strychnos potatorum, *L.—R.* i. 576.

CHILLA GADA, also Grasugada. Tel. Batatas edulis.

CHILLAH. The fortieth day after child-birth, on which a mahomedan woman performs her purifications. It is the forty days of Lev. xii. 4.—*Herkl.*

CHILLA-JAIDAR, a kind of silk of Bokhara.

CHILLAMBRUM, a town in l. 79° 47′ E. and l. 11° 26′ N. It has a famous pagoda near Palamcottah, which, in 1763 and 1754, frequently changed hands between the British and French.

CHILLANKI. Tel. Inga umbellata. *Willd.*

CHILLAR. Hind. The husk, skin or rind of fruit, grain, &c.

CHILLAR. Hind. Small money or change; it corresponds also to the English word "upwards," as a hundred rupees and upwards, -sao rupai challar.

CHILLIES. Eng.

Mirch	Duk.	Lombok ; Chabai ;	
Capsicum	Eng.	Chabe, Lada mera ;	
Cayenne Pepper	„	Lada China,	Malay.
Mirchi	Guz. Hind.	Molagaigal	Tam.
Lombok	Jav.	Mirapakaialu	Tel.

Chillies, or capsicums, are long roundish taper pods, divided into two or three cells, filled with small whitish seeds. The scientific relations of the genus producing these fruits will be found under the article Capsicum, and we will here attend chiefly to the culinary and commercial values. Chilli is the Mexican name for all varieties of *Capsicum*, though they are natives of the East and West Indies, and other hot climates. *C. annuum* is the species commonly noticed, but there are numerous varieties which, by many, are reckoned species. Thus *C. frutescens* is a shrubby plant, which grows to a large and more bushy size ; *C. minimum* supplies the variety called bird-pepper : *C. baccatum* has a globular fruit, and furnishes cherry or berry capsicum. They are all of the simplest culture, but culture appears to increase the size, and to diminish the pungency of the fruit. Their acridity is owing to an oleaginous substance called capsicin. When the fruit is fresh, it has a penetrating acrid smell : it is extremely pungent to the taste, and produces a most painful burning in the mouth. When dried, they form a large article of local and foreign traffic, and form the basis of Cayenne pepper ; but in vinegar, when green or ripe, they are an acceptable pickle. In Bengal, the natives make an extract from the chillies which is above the consistence and color of treacle. The consumption of the chillies in Southern and Eastern Asia is immense, as both rich and poor daily use them, and they form the principal ingredient in all chutnees and curries ; ground into a paste, between two stones, with a little mustard, oil, ginger, and salt, they form the only seasoning which the millions of poor in those countries can obtain to eat with their rice. They are worth about 40*s*. the candy of 600 lbs. Cayenne pepper is used in medicine chiefly in the form of tincture, as a rubefacient and stimulant, especially in cases of ulcerated sore throat. It acts on the stomach as an aromatic condiment, and when preserved in acetic acid it forms Chilli vinegar. Red pepper may be considered one of most useful vegetables in hygiene. As a stimulant and auxiliary in digestion, it has been considered invaluable, especially in warm countries. Immense quantities of the capsicum are used by the native population of the West Indies, Africa and Mexico ; the consumption there as a condiment being almost universal, and perhaps equal in quantity to salt. The "wort" or Cayenne pottage may be termed the national dish of the Abyssinians, as that, or its basis, "dillock," is invariably eaten with their ordinary diet, the thin crumpet-like bread of teff or wheat flour. Equal parts of salt and the red cayenne pods are powdered and mixed together with a little pea or bean meal to make a paste. This is called "dillock," and is made in quantities at a time, being preserved in a large gourd shell, generally suspended from the roof. The "wort" is merely a little water added to this paste, which is then boiled over the fire, with the addition of a little fat meat and more meal to make a kind of porridge, to which sometimes is also added several warm seeds, such as the common cress or black mustard, both of which are indigenous in Abyssinia. A kind called the Tobago red pepper, is said to possess the most pungent properties of any of the species. It yields a small red pod, less than an inch in length, and longitudinal in shape, which is so exceedingly hot that a small quantity of it is sufficient to season a large dish of any food. Owing to its oleaginous character, it has been found impossible to preserve it by drying, but by pouring strong boiling vinegar on it a sauce or decoction can be made, which possesses in a concentrated form all the essential qualities of the vegetable. A single drop of this sauce will flavor a whole plate of soup or other food. "*Johnston's Abyssinia*" *quoted by O'Shaughnessy. Faulkner. Simmonds, p.* 429. See Capsicum. Capsicum annuum. Cayenne.

CHILLIMILLI. Tel. Cicca disticha.

CHILLOOR—? Cæsalpinia sepiaria.

CHILLOUNEA. A singular tree of Nepaul. Its upper coat is entirely composed of innumerable needle-form fibres, tolerably united by a kind of gelatinous sap. The wood makes good beams and rafters, and is held in such superstitious veneration by the natives, that no house is considered secure in which more or less of the timber has not been employed.—*Smith's Nepaul.*

CHLLY. Eng. Capsicum *species.*

CHILMAD, a town mentioned as trading with Kanneh, Ez. xxvii. 21-23.

CHILON. Hind. Populus ciliata.

CHILOTA. Hind. Litsæa, *Sp.*

CHILOWAH, in l. 77° 37′ E., and l. 29° 31′ N.

CHILRAI, also Khatrow, Picea (Abies) Webbiana, P. pindrow, the silver fir.

CHILUCHI. Hind. Iris Nepalensis.

CHILU NUTIYA. Beng. Amarantus polygonoides, *Roxb.*

CHIMA. Tel. An ant.

CHIMA-PUNJI. Maleal. Cochlospermum gossypium, *D. C.*

CHIMBARI, the grass, Eleusine flagellifera.

CHIMBARI. Hind. Dactyloctenium Ægyptiacum.

CHIMBROY ASPARAGUS. Eng. Asparagus adscendens, *Roxb.*

CHIMKANI, Hind. Cathartocarpus fistula.

CHIMLIGHY. in l. 75° 57′ E., and l. 16° 26′ N.

CHIMMEIR, l. 73° 59′ E., and l. 21° 5′ N.

CHIMNANU, of Lahaul and the Chenab, Amygdalus persica, the peach.

CHIMONANTHUS. The fragrant Chimonanthus, which is now a favourite in England, where it blooms in the open air at Christmas, is quite common in China—*Fortune's Tea Districts, page* 79. See Edgworthia chrysantha.

CHIMPANZEE, the name by which one of those forms of the Simiadæ, which approach nearest to man, is most generally known. The term has been applied to the *Simia satyrus* of Linnæus, the Oriental Orang, but it is now generally restricted to a West African genus, the Troglodytes niger of Geoffrey, the Homo troglodytes of Linnæus.—*Engl. Cyc., page* 1015. See Simiadæ.

CHIMU, also Chimyaka. Hind. Syringa emodi, Morus serrata; Podophyllum emodi.

CHIMURUDU, also Chekonadi, Tel. Cadaba Indica, *Lam.*

CHIN. Hind. Fagopyrum esculentum.

CHINA. Hind. Panicum miliaceum.

CHINA. The empire in the extreme east of Asia, known to Europe by this name, is called by the western Mongols, Kathay; by the Mantchu Tartars it is called Nikan Kourn, and by the Chinese, Tchong-koué, the last name meaning the Central Kingdom. (*Duhalde, Hist. of China, p.* 1.) According to M. Huc, the Chinese also give to their country the names of Tchoung-hoa, or, flower of the centre; of Tien-chao, the celestial empire, or heaven's empire; and of Tien-hia, the "Beneath the Heavens," or the world, as the Romans called their dominions Orbis. The most ancient name given to their country by the Chinese, and that most in use, is Tchoung-kouo, that is to say, the Empire of the Centre. (*Huc. Chinese Empire, Vol. I, page* 349 & 350.) It is also, however, called by the natives Tang-shan, the hills of Tang (the name of one of the most celebrated dynasties); the present reigning family has given it the name of Tatsing-kwo, the empire of great purity. In government proclamations, especially in those addressed to Barbarians, it is often called Tien-chaou, the "Celestial Empire;" the natives call themselves Chungkwo-teih-jin, men of the middle kingdom, or Han-jin, or

Tang-jin, men of Han or of Tang (from the dynasties of those names). (*Gutzlaff's Chinese History, Vol.* I., *p.* 20.) The name of Seres, which Horace and the ancients use, seems to have been strictly applicable to some nation in the west of China. The western term China is not traceable, but many authors have surmised that it was given to the country when the Tsin dynasty carried their arms to the west. Whatever may have been its origin, the term China (Cheena) was that early given by the people of the N. W. of India, to the nation which Europe now calls the Chinese.

The annals of this empire extend back for three or four thousand years. Fo-hi is the first named sovereign of the Chinese, but the date of his reign is not ascertained. Yu, the Great, is the first monarch of whose reality there is no doubt. Their Bambus-book contains the record of the ancient imperial dynasties from B. C. 1991, to A. D. 264. The chronological connexion of its early dynasties is as under :

1st dynasty, Hia, the first emperor, Yu, beginning B. C. 1991, reigned 432 years.
2nd dynasty, Shang, began B. C. 1559, lasted 509 years. Twenty-eight reigns in fifteen generations.
3rd dynasty, Tsheu, began B. C. 1050, lasted 55 to 479 years. The 12th emperor Yeu Yang began to reign B. C. 781. His sixth year was B. C. 776. Confucius lived under this dynasty, and he recorded the observations of the solar eclipses from B.C. 481 upwards to 720.
4th dynasty, Tsin, began B. C. 255, and lasted to 207, 49 years.
5th dynasty, Han, began B.C. 206, and lasted to A. D. 264, a total of 469 years.

Systematic Chinese history hardly goes back so far as B.C. 2000, i.e , to the reign of Yu. Yu was the founder of the dominion of the kings or princes of Shen-si in S. China, as far as the great river. He diverted the course of the Yellow River to fertilize the lands between the two rivers.

Prior to the first emperor Chi-hoang of the Tsin dynasty, about 200 years before the Christian era, the country had been subdivided into numerous principalities and commonwealths, but that warrior emperor brought them all under subjection, and it is supposed to be from his time that the country was called China, from Tsin or Chin, the name of his dynasty. It was this emperor, also, who built the Great Wall to keep off the incursions of the Tartars. It was done by forced labor, every third labouring man was compelled to work for his bare food as a remuneration. It extends from the sea to the most westerly province of Shin-see, about 1,500 miles. It was built of earth faced with brick, it crosses mountains, valleys and rivers, and was finished in five years. Its breadth admits of six horsemen riding abreast, and has a tower every hundred yards. It was Chi-hoang-ti who introduced yellow as the colour of the royal family.

The T'sin dynasty was overthrown by Lin-pang, of the Han province, who was the first of the Han dynasty. With the destruction of the T'sin dynasty, great injury resulted to the Chinese annals. Most of the Han princes were munificent patrons of literature. During the reign of Ming-ti, the 15th of the Han dynasty, considerable intercourse was carried on between the princes of India and China, but it was particularly during the dynasties of Sum, Leam and Tam, from the fourth to the seventh centuries, that the princes from Bengal and Malabar to the Punjab sent embassies to the Chinese monarchs. The dominions of these hindu princes may hereafter be identified.—(*Tod's Rajasthan, Vol.* I., *p.* 218.) Nearer our own times, the Ming and Tsing dynasties ruled from A. D. 1368 to the middle of the 19th century.

Dynasty.	Kwo-Hiau, or reigning title.	Miau-Hiau, or Temple Title.	Eegan his reign.	Length of reign.	Contemporary Monarchs.
Ming.	1 Hung-woo ..	Tai-tsoo........	1368	30	Tamerlane, Richard II., Robert II.
	2 Kien-wan ...	Kien-wan-te....	1398	5	Manuel, Paleologus, Henry IV., England.
	3 Yung-lo......	Tai-tsung.......	1403	22	James I., Henry V., Martin V [Cosmo de Medicis.
	4 Hung-h... ...	Jin-tsung.......	1425	1	Amurath II, Henry VI., Charles VII., Albert II,
	5 Sinen-te	Sinen-tsung....	1426	10	James II., Frederick III., Austria, Nicholas V.
	6 Ching-tung ..	Ying-tsung......	1436	21	Mahomet II., Edward IV., Sixtus IV.
	7 King-tai......	King-ti..... ...	1457	8	James III, Frederick and Isabella, Louis VI.
	8 Ching-hwa..	Hien-tsung	1465	23	Bajazet II., James IV., Henry VII.
	9 Hung-chi ...	Hiao-tsung....	1488	18	James V. Henry VIII., Charles V.
	10 Ching-ti.....	Wu-tsung	1506	16	Solyman II., Mary, Philip II., Henry II.
	11 Kia-tsing	She-tsung... ...	1522	45	Selim II., Elizabeth, Gregory III.
	12 Lung-king...	Muh-tsung.....	1567	6	James I., Henry IV., Louis XIII.
	13 Wan-le........	Shin-tsung......	1573	47	Othman II., Philip IV., Gregory XV.
	14 Tai-chang ..	Kwang-tsung ..	1620	1	Amurath IV., Charles I., Urban VIII.
	15 Tien-ke..... .	He-tsung.... ...	1621	7	Innocent X., Frederick the Great.
	16 Tsung-ching.	Hwa-tsung.....	1628	16	
Tsing.	1 Shun-chi.....	Changhwang-te	1644	18	Mahomet IV., Cromwell, Louis XIV.
	2 Kang-he......	Jin-hwang-te...	1664	61	Charles II., Clement IX., Sobesky.
	3 Yung-ching..	Hien-hwang-te	1723	13	Mahomet V., Gregory II., Louis XV.
	4 Keen-lung....	Shun-hwang-te	1736	60	Osman III., George III., Clement XIV.
	5 Kia-king......	Jui-hwang-te...	1796	25	Napoleon, Frederick William II., Selim.
	6 Taou-kwang.	....	1821	...	George IV., William IV., Victoria, Louis XVIII., Charles X., Louis Philippe, Mahmoud.

Sirr'sChina and the Chinese, Vol. I., p. 446.

Origin and early history.—There are two great races occupying the Chinese Empire, Chinese and Tartars, the latter being the ruling people. All the ancient traditions of the Chinese refer to their emigrations from the West, and they undoubtedly are an aboriginal race from the original home of man. Like the Egyptians they seem to have migrated from the original seat, prior to the flood of Noah, of which neither race have any tradition. The first settlement of the Chinese people was in the northern portion of Chih le, the province in which the present capital, Peking, is situated. How the first Chinese, the founders of the nation, came to be in that locality, is one of those questions connected with the origin and spread of the human race generally which can only receive a conjectural solution. All we do or can know positively is, that the first portion of authentic Chinese history tells us that Yaou, who reigned 4,200 years ago, had his capital at the new district city of Tsin-chow, situated about 100 miles only to the south of the present capital Peking. From this most ancient location the people spread gradually westward and southward, thus steadily increasing its territory. The usual course of the process was, first, colonization of the newer regions, and displacement from them of whatever aboriginal inhabitants were found; and afterwards political incorporation with the older territory. At times, however, the process was reversed, and military conquest of the aboriginals preceded their displacement by an industrial occupation of their lands. The territorial distinction marked by the terms, China Proper and the Chinese empire, has existed in fact from the earliest periods of Chinese history. China Proper means at all periods that portion of the east of the Asiatic continent which has been possessed and permanently occupied by the Chinese people. The Chinese empire means at all periods besides China Proper, those large portions of the whole Asiatic continent occupied by Tartar-nomades or other non-Chinese peoples, but which have from time to time been under the sway of the Empire of China, and more or less directly ruled by Chinese officers and armies. China Proper has at all periods been characterized by Chinese civilization; that is to say, its population generally, besides being physically of the same race, has always been governed in its domestic, its social, and (with the exception of some very short periods) its political, life by the principles and rules laid down in the Chinese old Sacred Books. The non-Chinese peoples of the Chinese empire have, on the other hand, at all periods, either been destitute of anything that could be called civilization, or have been slightly tinged with Chinese civilization, or have been marked by some different civilization, as, for instance, at present, in the inhabitants of Turkestan by a Mahomedan civilization, and the inhabitants of Tibet by one strictly budhistic.

Extent.—The Chinese empire as thus defined has in the course of ages varied greatly in extent. It has been more than once larger than it is even now. It was so for example, about 2,000 years ago, under the fifth emperor of the Han dynasty; when it embraced the greater portion of inhabited Asia west of the Caspian sea, and inclusive of Siam, Pegu, Cambogia and Bengal. In the intervals between these great extensions it has shrunk up to the size of China Proper, and even this latter has been occasionally subdivided for considerable periods under two or more ruling families or dynasties, each acknowledging no superior. But the Chinese people has continued the same, even when under several rulers, and has been steadily increasing its territorial possessions by the processes above described. (*T. T. Meadows' Chinese and their Rebellions. An Essay on Civilization, p.* 34,35,36.)

The Chinese have annexed all the parts neighbouring on China Proper, from Mantchu and Mongol races. The dynasty is Mongol and the army Mantchu, and furnishes Mantchu soldiers in Mongolia, Tibet, and Kumaon. China Proper, without including Chinese Tartary, and other dependencies, is the largest as well as the most compact country in any part of the globe, extending, in length, from about L. 19° N. to about L. 42° N., and in breadth (taking one extremity, where it borders upon the peninsula of the Corea), from about L. 125° E., (taking the other extremity, where the Great Wall extends to the west), to about L. 85° E., being 23° in latitude, and 39° in longitude. The area given by Sir George Staunton is one million two hundred and ninety-two thousand miles.—(*Sirr's China and the Chinese, Vol. I, p.* 407.)

Population.—According to Mr. Knowlton's views, in 1868, the census of 1839, as given by M. Sacharoff of the Russian embassy in Pekin, made a population of 415,000,000. A census was found in governor Yeh's Yamun at Canton and the Chinese Commissioners at Tien-sing in 1859, stated the population at 400,000,000. China thus possesses a third of the human race, twice the population of British India with its feudatories and seven times that of Russia. China Proper is divided into 18 provinces, which have a population of 280, to the square mile, while that of Britain and Ireland is only 260. The antiquity, peace and fertility of the country has given this great populousness.

Civil Government.—The government is conducted by the Nuy-ko or Interior Council Chamber, in which there are four chief councillors, two of them Tartars, and two Chinese, who bear the titles of Choung-thang and Ko-laou. The Tartar minister presides. The Loo-poo are six boards for the conduct of government business, and the provinces of the country are each under a governor, or, where two provinces are united, a governor-general. Every province is divided into a certain number of districts, called a "Fu," "Ting," "Chow," and "Heen." A "Fu" is a large portion or department of a province under the general control of a civil officer, immediately subordinate to the head of the provincial government. A "Ting," a smaller division than, and sometimes a portion of, a Fu, when separate it is governed as a Fu, and called a "Chuh-le." A "Chow" is similar to a Ting, as also a Heen, but each is a smaller division; each Fu, Ting, Chow, or Heen, has one or more towns, or walled cities, under its guidance, one of which takes its name and rank as "Kwang-Chow-Fu" and "Shang-Hae-Heen," which latter, although of that subordinate rank, is the largest maritime city in the empire, and the greatest resort of the native ships or junks.—(*Forbes' Five Years in China, pages* 10 & 11.)

Provinces—Pe-che le has Chinese Tartary on the N.; Honan on S. W.; Imperial Sea and Shan-tung on E., and Shan-se on W. *Shan-se*, one of the smallest provinces, resembles in form an oblong lozenge, and is bounded on the N. by Tartary, on the S. and S. W. by Ho-nan, on the E. by Pe-che-le, and on the W. by Shen-se.

Shen-se was one of the most extensive provinces, but the western part of it has been erected into a province under the name of Kan-su.

Kan-su, the western portion of the old province of Shen-se.

Sze-chu-en, formerly called Si-shu, is bounded on the North by Shen-se and Kan-su, on the South by Yun-nan, on the East by Ho-nan and Hoopih, and on the West by Thibet, or rather by a small strip of Chinese Tartary. It is by far the most extensive of all the provinces, containing by estimation 175,000 square miles and having a population of 22,000,000. The Yan-tsze-Kang river traverses its whole extent, and to it all other numerous streams of the province are tributary.

Yun-nan is bounded on the North by Sze-tuen, on the South by Laos and Tonquin, on the East by Kwan-se and Ho-nan, and on the West by the Burman empire; a small portion of the north-west is bounded by Thibet. The surface of this province is estimated at 57,000 square miles, and its population at seven millions.

Kwan-se is bounded on the North by Ho-nan, and an irregular chain of lofty mountains, on the South and East by Kwan-tung, on the West by Yun-nan. Its surface is estimated at eighty-seven thousand square miles, and its population is between seven and eight millions. Kwy-ling-foo, its capital contains eleven cities of the first class, twenty-five of the second class, and 170 of the third class.

Kwan-tung, or Yue-tung, which signifies the "Eastern breadth," extends along the Southern coast from the centre of the Gulf of Tonquin, nearly as far as the portion of the coast which is opposite the Island of Formosa.

Foo-keen lies on the coast, and is bounded on the North-East by Che-kean, on the North-West by Ke-an-se, and on the South-West by Kwan tung: its surface is estimated about fifty seven thousand square miles, and its population is above fifteen millions.

Che-kian is bounded on the North by Keang-soo, on the South by Foo-keen, on the West by Keang-sea, and Gan-hwuy, and on the East by the ocean; its surface is estimated at fifty seven thousand square miles,and its population is upwards of twenty six millions.

Keang-se is the eastern portion of the ancient province of Keang-nan, or Nan-kin as known to Europeans; this ancient province was estimated to embrace a surface of 81,000 square miles, and its population was seventy millions. Keang-se, in extent, is about three-fifths of the ancient province, and it spopulation is upwards of thirty-seven millions. The Imperial Canal traverses the whole extent from north to south and the Yang-tsze-Kang from east to west, affording ready means for the transmission of merchandise, to and for from all parts of the empire.

Gan-hwuy is the western division of the ancient province of Keang-nan, being composed of about two-fifths of that province.

Shan-tung is in the form of a long peninsula, extending towards Corea, dividing the Gulf of Pe-che-le from the Yellow Sea, it is bounded on the north west by Pe-che-le, on the south east by Ho-nan, and on the south by Keang-se. Its surface is estimated at 56,000 sq. miles, and the population is nearly twenty-nine millions. Besides grain, this province supplies large quantities of fish, a great portion of which, packed in ice, is sent to Pekin by the Imperial Canal.

Ho-nan is bounded on the North by Pe-che-le, on the South by Hoo-pih, on the East by Gan-hwuy, and on the West by Shen-se; it is also called by the Chinese Tong-hoa. The capital is situated on the south bank of the Hwang-ho, which flows through the whole breadth of the province.

Hoo-pih is the northern division of the ancient province of Hoo-kwang, and is bounded on the North-West by Shen-se, on the South-East by Ho-nan, on the East by Gan-hwuy, and the West by Sze-chu-en. Its population is about twenty-seven millions.

Hunan, the southern division of the ancient province of Hoo-kwang, is larger than the northern portion just described, but it is not so thickly populated.

Keang-se is situate immediately to the east of the last described province, and is estimated to contain 27,000 square miles, and its population is upwards of thirty millions. Kwei-chow is bounded on the North by Sze-chu-en, on the South by Kwang-se and Yun-nan, on the East by Hu-nan, and on the West by Sze-chu-en. This province is estimated to embrace a surface of 64,500 sq. miles. (*Sirr's China and the Chinese, Vol. I., p.* 423.)

System of Government and Secret Societies.—The emperor has, in his palace a bell for the use of the oppressed who claim his protection, but it is now as much off duty as the cymbal or drum of the mandarins. (*Huc Chinese Empire, Vol. I., p.* 358.) The idea of the family is the grand principle that serves as the basis of society in China. Filial piety, the constant subject of dissertation to moralists and philosophers, and continually recommended in the proclamations of emperors and the speeches of mandarins, has become, in the views of the Chinese, the fundamental root of all other virtues. All means are made use of to exalt this sentiment, so as to make of it an absolute passion; it assumes all forms, mingles in all actions, and serves as the moral pivot of public life. Every crime, every attempt against the authority, property, or life of individuals, is treated as filial disobedience, whilst, on the other hand, all acts of virtue, devotion, compassion toward the unfortunate, commercial probity, or even valour in battle, are referred to filial piety; to be a good or a bad citizen, is to be a good or bad son. The emperor is the personification of this grand principle, which dominates and penetrates more or less deeply all the strata of society, in this immense agglomeration of four hundred millions of individuals. In the Chinese language he is called *Hoang-te*, August Sovereign, or *Hoang-chou*, August Elevation; but his name *par excellence* is *Tien-dza*, Son of Heaven. But in the bosom of this sceptical and avaricious people, there has always remained a powerful and vivacious spark that the Tartar government has never been able to extirpate, and secret societies have been formed all over the empire, the members of which have seen with impatience the Mantchu domination and cherished the idea of overthrowing it to obtain a national government. (*Huc. Chinese Empire, Vol. I., p.* 13, 84)

No nation is more closely united by the ties of clanship, which they designate by the word *sing*, than the Chinese. All the many millions are divided into rather more than 400 sing; those who belong to the same sing, consider each other as relations, descended from the same ancestor, and bound in duty to lend mutual help. This excellent custom degenerates frequently into that exclusive partiality, which is so repugnant to the spirit of true philanthropy. One sing is opposed to the other, one clan oppresses the other; they proceed even so far as to engage in open hostilities. The ties of nearer relationship are still closer. A Chinese is taught by his sages to love his relations. (*Gutzlaff's Chinese History, Vol. I., p.* 207.)

Civil Government.—The entire government is under the direction of two councils, attached to the person of the emperor; the *Nei-ko*, and *Kiun-ke-tchou*. The first is charged with the preparation of plans, and the despatch of current business. Its duty is, according to the official book, "to put in order, and to make manifest the thoughts and designs of the Imperial will, and to regulate the forms of administrative decrees." It may be regarded in some measure as the secretaryship of the empire. The second council, named Kiun-ke-tchou, deliberates with the emperor concerning political affairs. The Chinese distinguish, first, the great prefecture named *Fou*, which have a special administration under the inspection of the superior government of the province; secondly, the prefecture called *Tcheou*, the functionaries of which depend some times on the provincial administration and sometimes on that of the grand prefecture; and, finally, the sub-prefecture Hien, below both the Fou and the Tcheou. Each of these three, the Fou and Tcheou, and the Hien, possess a kind of chief town.

Literature.—The greatest counterpoise of the Imperial power consists of the literary aristocracy, or corporation of men of letters, an ancient institution, which has been established on a solid basis, and the origin of which is at least as early as the eleventh century before our era. It may be said that the administration receives all its real and direct influence from this sort of literary oligarchy. The emperor can only choose his civil agents among the lettered class, and in conformity with established arrangements. Every Chinese may present himself for the examination for the third literary degree, and those who obtain this, may then become candidates for the second, which opens the way to official employment. To fill the higher offices the prize must be obtained in the competition for the first degree. The corporation of lettered men recruited every year by the method of examination, constitutes a privileged class, almost the only nobility recognised in China, and it may be considered as the chief strength and nerve of the empire.

Nobles. Of the twelve orders of the Imperial nobility of China, tsinw' n is the first ; kiu-iwang the second ; beileh, third ; beitseh, fourth ; chin kwoh kung, fifth ; f-kwoh kung, sixth.

Hereditary titles only exist for the Imperial family, and for the descendants of Confucius, who are still very numerous in the province of Changtong. To the hereditary titles which the relations of the emperor enjoy, there are attached certain prerogatives, as well as a very modest allowance, the right of wearing a red or yellow girdle, of putting a plume of peacock's feathers in their caps, and of having six, eight, or twelve bearers to their palanquins. They cannot, more than any other citizen, pretend to any public office, without having previously taken their literary degree at Pekin and Moukden, the capital of Mantchuria. These Tatar nobles are often seen living in idleness and penury on their small pensions, and having no other proof to show of their illustrious origin than the red or yellow girdle. A private tribunal, however, is charged to govern them and superintend their conduct.

The first civil and military mandarins who have distinguished themselves in the administration or in war, receive the titles of *koung, heon, phy, tze*, and *nan*. All the officers, civil and military, of the Chinese empire, are divided into nine orders, *khiouping*, distinguished one from the other by certain buttons, or rather balls, of the size of a pigeon's egg, which are worn above the official cap. This distinctive ball is of plain red coral for the first order, of carved coral for the second, of a transparent deep blue stone for the third, of pale blue for the fourth, crystal for the fifth, of some opaque white stone for the sixth, and for the seventh, eighth, and ninth, of gilt and wrought copper. Every order is subdivided into two classes, the one active and official, the other supernumerary ; but this makes no difference in the balls. All the official personages comprised in these nine orders are designated by the generic term of *kouang-fou*. The name of mandarin is unknown to the Chinese ; it was invented by the first Europeans who visited the country, and is probably derived from the Portuguese word "*mandar*" to command, which they made mandarin. The famous Imperial academy of *Han-Lin* is composed of literary graduates ; it furnishes orators for the public festivals, and literary examiners for the province, and is supposed to promote the cause of learning and science generally. (*Huc Chinese Empire, Vol. I., pp.* 19, 87, 89, 90, 95.) But the people of Europe, where the press teems with new publications, may be astonished to learn that amongst 400 millions of men, there is not one original writer, nor has there been any for many centuries. The essays of successful literary candidates are almost the only new publications which see the light, and these contain nothing but what many millions before them have written under similar circumstances.

Races. Of the three great races, Chinese, Mongol and Mantchu, the predominating color of the skin of the Chinese is yellow, but yellow, brown, and sometimes a maroon tint occur. The face is broad and flat : cheek bones projecting, irides black : eyes oblique : beard scanty, stature above that of the Malay and Tibetan, below that of the European. The sea-coast people are skilful and enterprising, with that self-reliance which enables nations to emigrate, and we find them swarming in the Malay ports, in Singapore, Borneo, and the Philippines, and numbers are in Australia, the West Indi Sandwich Islands, and California, but, except in buddhist Burmah, they are not settlers, only forming temporary connections, sending all their savings, and looking forward to return to their native land. Next to the Malay this people are the most formidable pirates of the eastern seas. The Mongols and Chinese have scanty beards.

Feudatories. The numerous military feudatories of the empire are scattered through the regions known to the Chinese geographer as Inner and Outer Mongolia, Uliasutai and Tsing Hai, or Koko-Nor ; but there are also the troops of Tibet under the resident Minister of that country. The tribes acknowledging the sway of China are divided into Inner and Outer Mongolians. The former occupy the region to which their name refers them ; the latter, all the other tracts and districts above mentioned.

Inner Mongolia, lying between the Desert of Gobi and the continuous frontier of Manchuria and China, was occupied, in

1812, by 24 tribes, differing in name, irregularly ranged under 49 standards, and divided, in uneven proportions, into six *chalkan*, or leagues.

The Outer Mongolians were, 1st, four tribes of Kalkas of different names, under khans, which, with two fragmentary tribes attached to them, formed four leagues; they numbered in all eighty-six standards, and resided in the territory north of the Desert of Gobi, geographically named Outer Mongolia; 2d, Eleven tribes, not in leagues, under 34 standards, scattered to the west of the Holan mountains, in the South-west of Inner Mongolia; to the south of the Altai; and to the north of the Tengkiri ranges; 3rd, Two tribes of mohammedans, under two standards, at Hami and Turfan, within the provincial boundaries of Kansuh, south of the Celestial Mountains; and 4th, Five tribes under 29 standards round Koko-Nor, called by the Chinese Tsing-Hai, or Azure Sea. There are lamas of both Inner and Outer Mongolians. Nearly every standard of the above, if not all, has a native head entitled a Dzassak, whose chieftainship is, with slight limitations, hereditary; the people under their rule are collectively styled orbadu or orpatu, the lamas excepted, who are distinguished as of Shapi Nor; their Dzassaks take the prefix lama before their title. The few tribes, or remnants of tribes not under such chieftains, are under the more immediate authority of the Banner generals and resident Ministers from China. These last may be briefly enumerated. Under the Tsiangkiun of Sui-yuen are the Tumet of Shansi beyond the Wall; under the Tutung at Kalgan, on the Wall, the most privileged tribe of Chahar, Bargou incorporated in Chahar, Kalkas and Eluth; under the Tutung at Jeh-ho, Tashtava Eluth, under the Fu-tutung at Hurun-pir, Eluths and New Bargou; under the Tsung-kwan at Tasangula, Solon, Taguri, Orunchun and Pilar, paying peltry; both these being under the Tsiangkiun of Sagalien. In Ili, the Tsiankiun has authority over Eluths and Chahars of his own central province of Ili, who have also Chinese ministers; over Eluths, Chahars, and Hassacks under the Tstantsan Minister resident at Tarbagatai, and over the mohammedans of the eight cities in Ili, south of the Tien Shan, who are under resident ministers of different degrees.

In Uliasutai province, which receives a small garrison from the Tsiangkiun of Shansi, there are Tangnu Uriankai, some of them Yumuh herdsmen, some Tasang peltry-men, under the Tsiangkiun in observation at Kurun, who is father supreme over the Ministers at Kobdo, having charge of the Mingats, Eluths, Chaksim, Altai Uriankai and Altai-Nor Urian-kai of the far province.

On the borders of Tibet, are Tamuh, or Dam Mongols, under eight standards, amenable to the authority of the resident Tsantsan.

As to the feudal constitution of these tribes, (*Wade's Chinese Army, page* 68), the six ming, chalkan or leagues, into which these twenty-four tribes are formed, are each under a head or elder, and a lieutenant, chosen from a list of Dzassaks presented to the emperor by the Colonial Office. Every tribe is bound to assist any other in the same league which may be in danger. Once in three years, the leagues are mustered by four high commissioners selected by the emperor from incumbents of high civil and military posts in the empire; their visit is of a thoroughly inquisitorial character. The Dzassaks are in turn compelled to pay visits to Peking; the year in which it is not the duty of this or that Dzassak to go, he sends a Taikih. On stated occasions, all assemble in court costume to do homage in token of fealty before the door consecrated to Majesty at the head quarters of the tribe.

The internal economy of the Outer, is much the same as that of the Inner Mongolians. Their Dzassaks are ennobled by all the same titles except Tapunang of which there are none. Some of the Dzassaks, whether otherwise ennobled or not, have the title Khan, which is superior to any of the rest, and brings with it a higher allotment of pay and gifts. Their chalkan or leagues, have each a captain-general, and a lieutenant like the Inner Mongols, and are like them mustered and inspected triennially. Their military organization is, with a few exceptions, the same. First, in the region of Outer Mongolia, we find four leagues of Kalkas, each under a khan: 1st, the Tuchetu khanate, numbering 20 standards under 58 tsoling; 2nd, the Sain-noin 24, including two Eluth standards, in 38½ tsoling companies; 3rd, the Tsetsen, 23 standards in 46½ companies; 4th, the Dzas-saktu, under 19 standards, including, of Khoits in 24½ companies. Now come the Durbet in two wings, each of which is a league under a lieutenant-general, appointed as above: the left comprising ten standards of Durbets and one of Khoits, in 11 companies; the right, three of Durbets and one of Khoits, in 17 companies. Their position is beyond the north-west frontier line of the Dzassaktu; they extend across the province of Kobdo north of the city of that name, and their troops, amounting in 1812 to 1400 *makia*, were under the *Tsantsan* of the Chinese government at Kobdo. The two wings are subject to one khan. Under the same officer of Kobdo, are the troops of the New Turguth of the Urungu River, in the south-eastof the same province, and Hoshoit of the Djabkhan farther north. The former under two standards in three companies, which would give but 150 makia, form a league; the single standard and company of the latter, furnishing 50 makia, belong to none.

Under the Kurun general are 595 Tasang families of Uriankai Tangnu, paying two skins of marten fur, and 412 paying 80 gray mouse skins under the Tsantsan of Kobdo, 412 of Altai Tangnu, paying gray mouse skins, 256 marten skins, and 429 paying four fox skins each: also 61 of Altai Nor Tangnu paying gray mouse skin, and 147 paying marten fur. Of Yumuh there are, under the general, eight companies of Uriankai, and under the Tsantsan, seven of Altai, and two of Altai Nor.

Of the leagues whose soldiery is under command of the Tsiangkiun of Ili, of whom some mention has been made before, there are four of Old Turguths and one of Hoshoits distributed in five circuits. The north contains the Old Turguths of Hopoksiloh, three standards in 14; the east, those of Tsirholang, two in 7; the west, those of the River Tsing one, in 4 companies. These are north of the Tengkiri, stretching well into Tarbagatai.

Following the outline of modern Kansuh, we find in the north-east of the Tsing Hai, or Koko-Nor territory, five tribes in one league of 29 standards; it is peculiar in having no captain or lieutenant like the rest. Their standards are 21 of Hoshoits in 80 companies; one of Khoits in 1; four of Turguths in 12; one of Kalkas in 1; and two of Choros in 6½ companies. Their fighting strength in 1812, would thus be 5025 makia, under the command of the Resident at Si-ning, on the borders of Kansuh.

The mahommedans of Hami and Turfan as well as those of the cities in East Turkestan, have been noticed in the Kansuh and Ili commands. The tribe of Hami has one standard in 13, Turfan, one in 15 companies; or respectively 650 and 750 makia, under the Dzassak, who are overseen by a lingtsui at each place, under the tutung of Urumtsi as chief.

The nobility of these are under the same obligations of homage and service as in the preceding tribes. There appears to be some fiscal distinction between the mahomedans of Hami and Turfan, and those of Ili and the cities in the South Circuit of Ili, or Turkestan, who are mentioned as families paying a tribute or tax of produce, from which none are exempt but the soldiery. The only indigenous troops returned in the Digest, however, were 500 mahomedans at Cashgar, in 1812, the chief of the circuit cities, over these there is a tsungkwan, a fu-toung-kwan, and 5 pihchang centurions. Their garrisons of Bannermen and Luhying were given before.

Tabular Statement of the Population and Armed Proportion of the Tribes (1812.)

Divisions and Grades.	Tribes in Inner Mangolia.	Kalkas, &c. of Outer Mongolia under the general at Kurun.	Old Turguths under the Tsiangkiun of Ili.	Hoshoits of Churutuz under the Tsiangkiun of Ili.	New Turguths of Urungu and the Djabkhan Hoshoits.	Durbets and Khoits under the Minister at Kobda.	Koko-Nor tribes, ruled from Sining-fu in Kansuh	Alashan Mongols, under their own Dzassaks.	Old Turguths of Edsine, under their own Dzassaks.	Mohammedans of Hami, under their own Dzassaks.	Mohammedans of Turfan under their own Dzassak
Banners ..	49	86	10	3	3	15	29	1	1	1	1
Leagues ..	6	4	4	1	1	2	1	..	..	..	..
Khans ..	..	4	1	..	..	1	..	..	..	..	..
Tsin-wang ..	4	6	1	..	..	1	..	1	..	..	..
Kiunwang ..	17	5	1	..	..	1	4	..	..	..	1
Beileh ..	17	5	1	..	..	2	2	..	1	2	..
Beitseh ...	16	7	2	1	..	1	4	..	...	..	..
Chink-woh-kung ..	9	8	..	..	..	1	..	2	...	..	..
Fu-kwoh-kung ..	18	23	2	..	2	2	4	...	..	..	..
Taikih ..	9	48	2	1	3	4	15	...	..	..	..
Tapunang ..	1	..	...	..	..	..	..	..	..	..	..
Changking ..	49	86	10	3	3	15	29	1	1	1	1
Fu-changking ..	45	25	6	3	2	10	15	1	1	2	2
Tsanling ..	215	26	13	3	1	4	...	1	..	2	2
Tsoling ..	1,293	165½	79	21	4	28	100½	8	1	13	15
Hain-ki-kian ...	1,293	105	79	21	4	28	100	8	1	13	15
Lingtsui ..	7,758	990	474	106	24	168	600	24	6	78	90
Makia, men-at-arms..	64,650	8,250	3,950	1,050	200	1,400	5,000	400	50	650	756
Hiensan ..	129,300	16,500	7,900	2,100	400	2,800	10,000	800	150	1,300	1,500

There are many small scattered tribes. Amongst these are the nomad Yu-muh, wandering herds, they and the Tosang, slayers of bird, beast, or fish, the skin or flesh of which is paid by them as tribute, are variously interspersed throughout the military jurisdictions of extra-provincial China, and are administered more or less by military functionaries. The Tasang are to be found in Kirin, and Tsitsihar of the Manchurian provinces, and Urianghai; the Yumuh are at Changkiakau, and in Ili, Jeh ho of the map, Tarbagatai, Urianghai, Kobdo, and Tibet; there are also Yu-muh between Tibet and the Kansuh frontier, under the minister residing at Si-ning-fu, and on the borders of Shan-si in the Kwei-hwa command. According to the rule of collection among the Urianghai tribes, a marten skin short is made up by payment of ten fox skins; one of the latter, by payment of half a tael. At this rate, the Kirin peltry would be worth 11,990 taels; that of Tsitsihar, 44,970 taels. We cannot say what allowances are made to the tributaries. The Sang-ting of Ta-sang Ula, mentioned above, render every Chu-hien, 16 pearls, or 1760 pearls in all, to the Kwang-chu-sz, or Household treasury; 5,000 catties weight of honey, to the Household Kwinling; 1,000 fir-cones for fuel, and 54 Shih, peculs or fir-nuts to the Household Ch-ng-i-sz, office of ceremonies, banquets, &c. There is no fixed due of fish; what is collected goes to the Chen-fang, or Imperial buttery. The cost of the collection will be found to be above 40,000 taels, exclusive of the salaries of the Tsungkw-n and other officers; what may be the value of the tribute, we have no data for computing. The honey collected by the Sang-ting is worth but 40 catties a tael. These Sang-ting are scattered through 14 magisterial districts on the north of Chihli, and beyond its border in Shing-king-fu; the old, 965 families, pay a tax amounting in all to 4214, the new, 1116 families, 8071 taels, or an equivalent in kind of fowls, deer of different sorts, wild boars, hares, pigeons, quails, wild ducks, herons, small scaled fish (trout ?), hawks and falcons, ravens, honey, deers' flesh, osprey feathers for arrows, fox-skins, and seal skins. They are divided into classes according to the tribute required of them, if the land under their tillage do not render sufficient. The new families should pay about ·035 of a tael on very Hiang, or 6 Chinese acres. The total extent in their hands is about 137,560 acres, They and the old are under the civil authorities of the districts in which they abide.

The nomads of the Sagalien river and island of Tarakai, in the province of Kirin, are not registered in Chuhien or Tsoling companies. In 1812, they were 2398 families under 56 surnames, of the Heiche, Fayak, Kaye, Orunchun, and Kelur tribes held to be within the jurisdiction of the Tutung of Sansing, each family paying a tribute of one marten skin.

Maou-tze on the south of Szechuen are said to be wild mountaineers, but much connected with them is obscure. Friar Odoric travelling in China notices the differences between the races on the two sides of a great mountain, from which the friar seems to have passed a part occupied by the Meau-tse or other aboriginal tribes. These do not now extend so far east; but what Polo says of savage cannibals with blue-painted (*i. e.* tattooed) faces in Fokien seems to imply that they did so in his time; and some observations of Sir John Davis corroborate this (*Polo* 178. *Chinese, Supp. Vol. p.* 260.) And in the modern Chinese census one class of the population in a district of the province of Canton appear as Blacks (*Chin Mod., p.* 167). Indeed Semedo (about 1632) says there was still an independent kingdom, presumably of the Meau-tse, in the mountains dividing Fokien, Canton, and Kiangsi, viz, those of which Odoric speaks (*Rel. Della China, p.* 19) The habits and appearance of those races would, no doubt, stand in strong contrast to those of the Chinese, who call them Dogmen and Wolfmen. The "barrel of horn" worn on the head may perhaps be identified with the grotesque coiffure of the Meau-tse women, described by Duhalde as "a light board, more than a foot long and five or six inches wide, which they cover with their hair, and fix it with wax so that they seem to have a hair hat on. They cannot rest the head nor lie down, except by putting something under the neck, and they are obliged constantly to twist the head right or left in passing along the forest paths. And the business of combing the hair is a still greater difficulty: they must then hold their heads for hours by the fire to melt the wax," etc. *Yule Cathay. I. p.* 111. The *Army of China* consists of the Bannermen who may be said to be the force of the usurping family, and the troops of the Green Standard, who are, with occasional exceptions amongst the officers above the rank of subaltern, entirely Chinese. The Bannermen are Manchus, Mongol Tartars, and Han kiun, or Chinese descended from those who forsook the cause of the Ming when their country was invaded. These three nations are each ranged under Eight Banners as below, the three first being styled the Superior, the five lower, the inferior Banners.

1. Bordered Yellow.
2. Plain Yellow.
3. Plain White.
4. Bordered White.
5. Plain Red.
6. Bordered Red.
7. Plain Blue.
8. Bordered Blue.

The 1st, 3rd, 4th and 7th form the left, the remainder the right wing. The chief superintendence of all Bannermen vests in the metropolitan office of the Tu-tang, or Captains-general of the Banners. The Chinese army not of the Banner, is known as the Luh ying, or that of the tents of the Green Standard, a designation bestowed on it to distinguish it from the Banner corps. The Inquiry, &c. of 1825, makes 41 principal divisions of the Banner forces, stationed in Peking and a section of Chihli round it, and in eleven of the other provinces of China Proper, Manchuria, and Turkestan. There are no Bannermen in Nganhwui, Kiangsi, Hunan, Kwangsi, Yunnan, or Kweichau. The troops of the Green Standard are divided into 1202 ying, battalions or cantonments, of which there are but five in Peking, under the command of the Captain-general of the Gensdarmery. These ying vary widely in strength ; and a number of them, also differing in different places, compose a "piau," of which there are 43, or a "chinpiau" of which there are 72, in the eighteen provinces. M. Huc speaks of these (*Vol. I, p.* 404) as estimated at 500,000 strong. All the Banner garrisons save those of Fuhchau, Canton, Liangchau, Ninghia, Chwangliang, Sui-yuen, Tai-yuen, Tehchau, and the nine inner garrisons of the Metropolitan Cordon, send up a small number of officers and men to Peking to be there taught their duties in the hunting suite of the Emperor, should he repair to the preserves of Muh-lan, at Jeh-ho (Zhehol). These are in the keeping of a Tsungkw in (3a) two yihch ing (4a) eight fong-yu (5a) and eight hiau-ki kiau, or subalterns all under the orders of the tutung of Jeh-ho.

There is a rollster of the Mongolian nobles who are obliged to present themselves every year at Peking. If the Emperor cross the border to hunt, they do him homage at his hunting-ground instead, and the expedition is under the conduct of some of them, while the rest attach themselves to his suite while it lasts.

The Tsoling, in 1812, were 57,—viz., of the Kharchin nomades 7, Orat 3, Sumit and Isuth 1, Mau-mingan 4, Kalkas 3, Bargow 15, Old Eluth 18, and 6 of the new, or Eluths reclaimed since 1754, all distinguished as belonging to the Chahar country. There is at Chahar also a large quasi-military establishment for the care of the oxen and sheep of the pasture.—*Wade's Chinese Army, p.* 3 to 48.

The number of Mantchoo troops is estimated at 60,000 men. These soldiers, we believe, are habitually under the arms, and are assiduously exercised in their profession. The government watches over them with great anxiety, for the Emperor has a strong interest in not allowing these troops to stagnate in inaction ; he takes care that they shall preserve something at least of the warlike character to which they owe their conquest of the empire.—*Huc Chinese Empire, Vol. I., page* 404.

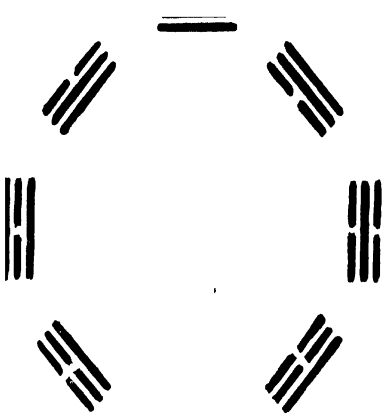
Religions and Philosophies. The Chinese have acquired in the course of their long existence, more than one different kind of philosophy ; that is to say, there exist in China several radically different ways of viewing the nature of the inanimate world and of man.

There are about 800,000 christians in China, and many thousand mahomedans. The philosophic systems of Lao Tse, of Kung Tsze, or Confucius, of Tshu-hi and of Buddha, take the place of religions, but none of these four are pure philosophies.

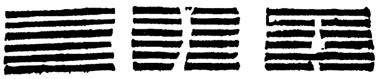
Lao-tse, also called Lao-kiun, was born in the year B.C. 604, and died B.C. 520 at the age of 84. Confucius was born B.C. 551, and died in B.C. 479, at the age of 72, and they were contemporaries and acquaintances. Lao Tse regarded Tao as the Rational Order of the Universe, as the first cause of all things. Tao means *way, kind, mode*, and in his views, the wise man renounces the world and plunges himself into non-existence. Lao-tze himself forsook his official functions and the world and died in a desert. Confucius repaired to him near the close of his life; but was received with a sharp rebuke for his ambition and love of money and estates, and ridiculed for his researches into the ancient ceremonial. The mystical formulas of Lao-tze have never found their way amongst the practical Chinese. His adherents fell into the delusions of a mystical magic. His system of philosophy is regarded by its adherents as the primitive one of the most ancient inhabitants of China. It has numerous analogies with that of Confucius, but the individual existence of genii and demons is recognised in it, independently of the parts of nature over which they preside. The priests and priestesses of this worship are devoted to celibacy, and practice magic, astrology, and necromancy ; they also study alchemy, and profess to have discovered the philosopher's stone, or secret of making gold, and a liquid that renders those who imbibe it immortal. The tenets inculcated by his followers, the priests of Tao, are the practice of virtue, repression of animal passions, the insufficiency of wealth to procure happiness, and the fallacy of seeking after perfect bliss. The spirits of darkness and demons are worshipped, sacrifices being made to them of three descriptions of victims, which are a hog, a cock, and a fish, and the chief priest of this sect professes to have power over the gods and demons of the invisible world. In fact, the sect of Tao may be called the mystics of China, as they profess alchemy, the art of divination, and pretend to great knowledge. They are called Tao-tse, or Doctors of Reason, because their fundamental dogma taught by the renowned Lao-tze, is that of a primordial reason, which has created the world. This doctrine is contained in a work pompously entitled, the "Book of the Way and of Virtue." Lao-tze was in frequent communication with Confucius, but it is difficult to know what was the opinion of the head of the Religion of the Lettered concerning the doctrine of the patriarch of the Doctors of Reason. One day Confucius went to pay Lao-Tse a visit, and when he came back to his disciples, remained three days without speaking a word. Whatever may be said of the philosophical ideas of Lao-tze, his disciples have never enjoyed great popularity. Theirs is not a popular belief. They are gross idolators. To enumerate all their idols, would be a very task; amongst them are San-tsing, the three pure ones Shang-te or Yuh Hwang, the supreme august one; Pih te, the northern emperor, &c. Laou-keun's work, the Taou-tih-king, is still extant.

Confucius was born in 551 B.C., and died in the year 479 B. C., at the age of 72 or 73. During his lifetime, the country now known as China was parcelled out into a number of independent States and Commonwealths. He was the son of the chief minister at the court of the king of Loo, and was himself of royal descent. He rose to the dignity of minister of that kingdom, and by lectures on ethics gained many disciples, but later he resigned civil employ, and devoted himself to those works on philosophy which up to the present day regulate both the government and the religion of the State. He collected also the earliest documents relating to the history of his people and country, the popular songs and sacred hymns, the chronological emblems, and their explanations. (*Bunsen's God in History, Vol. I, p.* 259.) Confucius must have been almost contemporary with Pythagoras, Thales, Socrates, Solon, Buddha and Herodotus, but the principles inculcated by the Chinese philosopher, far outvie those promulgated by the sages of ancient Greece. (*Sirr's China and the Chinese, Vol. II, p.* 145.) It is now impossible to ascertain what part of his writings was original and what obtained from previous writers; but it is generally known that he largely annotated the ancient work Yih-king, and he bequeathed five classics and four books. His works Shoo-king and Shi-king, contain the historical records of the country and the poems then extant. His book of rites regulates the manners and customs and outward forms of the whole society, and constitutes a part of his religion. Confucius is described by one of his disciples as wise, affable, condescending, just. Another as gentle, but inspiring respect; grave, but not austere: venerable, yet pleasing. In the troubles that occurred from the efforts at aggrandisement which the several kings made, he was sometimes in high employ, but once at least a fugitive, but at the close of his long life, he left about three thousand followers of his doctrines. The smaller kingdoms were annexed by the race of Tsin, of which dynasty, the first emperor was Chy-Hoang, who built the great wall. The Chinese have no existing records older than from the time of the race of Chou, in whose reign Confucius lived, and from his time authentic history commences. In the first of his four books Confucius traces a system of government from that of a family to that of a province, and from a province to a kingdom, making the family tie the foundation of the government. Indeed the Chinese religion has never advanced beyond a love of parents, obeying and reverencing them while alive and worshipping them when dead. It is rather a system of morality, moral philosophy, than a religion, and inculcates, rather the duties of men to one another, than to a supreme being. Their books teach that the true principles of virtue and social order are obedience to parents, elders, and rulers, and acting towards others as they would be done by. They regulate the duties alike of the sovereign and of private families. The Confucian school does not deny the existence of a Supreme Being, but neither defines this fundamental article of every rational creed, nor inculcates the necessity of worshipping the only God. He inculcates polytheism, by enjoining the worship of heaven and earth, the spirits of hills, rivers, winds and fire; in fact, all nature, excepting nature's omnipotent God. His doctrines, called in Chinese Ju-kea-su, the religion of scholars, is the orthodox creed of the State. To the founder, divine honour is paid by all his followers, who are not very scrupulous in worshipping one idol more or less, and have long maintained the most absurd pantheism. His descendants are the only hereditary nobles. (*Gutzlaff's Chinese History, Vol. I, page* 68.) Confucius himself is never religious in his writings; he contents himself with recommending in general the observance of ancient precepts, of filial piety, and fraternal affection, and of maintaining a course of conduct "conformable to the laws of Heaven, which must always be in harmony with human actions." (*Huc's Christianity, Vol. I, p.* 322.) The followers of Confucius are, by some authors, called the sect of Ju-kea-su. In reality, the religion, or rather the doctrine of the disciples of Confucius, is Positivism. They care nothing about the origin, the creation, or the end of the world, and very little about long philosophical lucubrations. Although the Emperor builds and endows temples belonging to the two other sects, the Confucian is the religion of the State, and the Court pretend to follow the scheme of ethics and politics laid down by Confucius. It is a curious coincidence that the revival in China was contemporary with an epoch of philosophical and literary activity equally important for the West, that which commenced with Pythagoras as contemporary of Confucius, embraced Zeno, Empedocles, Herodotus, Thucydides, Socrates and Plato, and ended with Aristotle, who died about the same time as Mencius. Throughout the empire of China some vague idea is entertained by the people of the existence of one great being, whom they usually designate as Shangti, the Supreme Ruler, the Supreme Sovereign, or whom they call T'ien, Heaven; and believe that he, by a fixed destiny, controls all the affairs, and as such Tien is taken to be an appellation of the godhead of men. The learned among the Chinese speak of him, as he is represented in their most ancient classics, as having no form, nor sound, nor savour, nor tangibility; and to their minds he appears divested of all distinct personality. The spiritual ministers of heaven they call Shin, expansive spirits, or Shin ming, illustrious spiritual beings. They divide them into the two large classes, of which one is the Tien-shin or heavenly. But the whole number of these spirits are dependent upon, and ruled by, Tien or the Supreme Ruler of Heaven. They rarely build any temple for the worship of Shangti; there is not one such temple in Amoy, and only one has been erected in the large city of Chiang Chow. Still the people universally pay to heaven, or to heaven's lord, a sort of homage daily. Every Chinese house has a lantern suspended outside the street door, and directly over the middle of the door-way, which they call Tien kung tang, heaven's lord's lantern, or simply Tien tang, heaven's lantern. These lanterns are all lighted up, and incense is burnt for Him, during a short time every evening. Also, one day in every year they profess to devote to his honour the 9th day of their 1st month, which they call his birth day! Then they have plays acted to please him! (*Journal of the Indian Archipelago, No. VI.* 1848, *p.* 350.) The Chevalier Bunsen is of opinion that amongst the Chinese, their worship of the dead is the sole connecting link between them and a future state. In their disbelief of immortality, and of God, Quinet doubts if they have, in the past 5,000 years, lived a single day (*Bunsen God in Hist.* p. 265-7, Vol. 1.) There was a long struggle for the mastery among the adherents of these three systems, a struggle which expressed itself in mutual proscriptions and persecutions. But the Confucian always succeeded in maintaining for itself the greatest ascendancy, except during some comparatively short period; and it became definitively paramount fully ten centuries ago. From that time to this it has continued dominant in the country. It has been the philosophy and morality of all the great historians of China, and has formed the basis of her peculiar national system of legislation and administrative procedure. It may be described as the assemblage of those fundamental beliefs which are entertained by all cultivated Chinese on the phenomena of animate and inanimate nature. The literature in which it is set forth, and which it has moulded, whether notological, psychical, ethical, legislative or historical, is that, exclusively, an intimate and extensive acquaintance with which has, for many centuries, been made indispensable to the passing of the public service examinations, which are, for the talent and ambition of China, far more than the hustings, the avenues to church preferment, and the bar all combined, are for the talent and ambition of England. Hence Confucianism is, and has long been in the fullest sense of the terms, the national, orthodox,philosophy and morality of the Chinese people. Taouist and Buddhist temples exist all over China, and in latter centuries mahomedan mosques have been erected in many of its cities; but the dominant Confucianism merely endures Taouism, Buddhism, and mahommedanism as erroneous and superstitious systems of beliefs prevalent among, because most suited to, people of uncultivated or weak minds, whether rich or poor; but which find most acceptance among the poorer and therefore unlearned and unenlightened classes. They have no influence on the national polity. The people are in nowise prohibited from worshipping in the Buddhist and Taouist temples; in other words they may regulate their purely religious life by the tenets of these, or indeed of any other sect. But where Taouism or Buddhism would leave the region of religion and, in the form of philosophy or morality, extend their direct influence into the domain of the social science and art, there Confucianism peremptorily and effectually prohibits their action. Not only are the national legislation and administration formed exclusively on Confucian principles, it is by them also that the more important acts of the private life of the Chinese are regulated, as for instance marriages. The cause of the prevalence of mahommedanism in China, in spite of discouragements, lies in the fact that Confucianism says little or nothing of a supernatural world or of a future existence. Hence it leaves almost unsatisfied those ineradicable cravings of human nature the desire to revere and the longing for immortal life. That it has, notwithstanding its want of these, holds on the human heart, maintained itself not simply in existence, but as the ruling system, is a fact that must, as soon as it is perceived, form for every true thinker a decisive proof of the existence of great and vital truths in its theories, as well as thorough soundness and wholesomeness in the practical rules which it dictates. By Chinese philosophy, must be understood Confucian philosophy; and by Chinese morality, the moral principles rooted in that philosophy. And the object of these remarks being essentially practical, only brief notices will be made of the philosophical doctrines contained in Buddhism and Taouism in what is to follow; though the influence which these systems exercise as religions, will be again alluded to.

In order to get a distinct general conception of the Chinese philosophical literature, two epochs must be specially kept in mind. The first began with Confucius (Kung tsze), who was born B. C. 551 and ended with Mencius (Meng-Tsze), who died about B. C. 317. The second began with Chow-leen-ke or Chow-tsze, who commenced his labours about A. D. 1034, and ended with Choo-ke or Choo-tsze, who died in A. D. 1200. The first lasted for seven generations. It was separated by an interval of thirteen hundred years from the second; which lasted for five generations. Both were periods of revival of ancient learning and of further development. Both embraced several celebrated philosophers, besides those mentioned, but in each case it was the originator and closer of the epoch who became most celebrated. The writers of the second epoch are often mentioned as the philosophers of the Lung dynasty; which latter was established in A.D. 960, about 70 years before Chow-tsze's labours began, and continued in possession of the sovereignty till A. D. 1271, till about 70 years after Chow-tsze's labours closed. Confucius, though his name in the West became identified with Chinese learning, was by no means its originator. Authentic though not full records, embodying ethical and political doctrines, extended back to B. C. 2357, or to about eighteen hundred years before Confucius, while the Chinese philosophy originated with Fuh he, who lived according to tradition, some twenty-three generations before the exact chronological era; which latter took place B. C. 2637 with the institution of the national cycle of sixty years. Allowing thirty years to a generation, this would place Fub-he about B,C. 3327. It was he who substituted writing for the knotted strings that had previously formed the only means of record; and it was he who first established marriages, and separate families. To him are also ascribed some civilization labours of lesser, but still great, importance, the division of the day into twelve she shin, or watches, of two hours each. Fuh-he is therefore the founder of Chinese civilization generally. But he is perhaps best known as the originator of the natural philosophy, and in particular as the author of the "Eight Diagrams," which were drawn by him as follows:—



The multiplication of these eight diagrams by themselves produced sixty-four doubled diagrams much as :—



The annotation of Confucius to the ancient work, the Yih-King, states that Fuh-he got the idea of the diagrams from a figure on the back of a "dragon horse" that issued from a river. The same annotation states that, before Fuh-he invented the Eight Diagrams, he observed the configurations and appearances in the heavens and the earth, and the marks on birds and beasts; also that he derived information from his own person and from things around him. These terse passages of an ancient author are, when taken literally, apt to give a ridiculous air to the "Eight Diagrams." But a little examination shows the meaning to be that Fuh-he constructed the Eight Diagrams only after a careful and extensive survey of nature and its varied phenomena, as exhibited in the departments which we call astronomy, meteorology, physical geography, and natural history, and after reflection on his own nature, physical and mental, and on the nature of men generally as manifested in the events of the social life around him. The Eight Diagrams formed in fact, an illustrative figure intended to elucidate Fuh-he's theory of the universe, a theory adopted after careful reflection on all animate and inanimate nature within his ken. They are in so far undoubtedly the foundation of Chinese philosophy, but it must not be assumed that learned Chinese conceive any occult power to lie in them. Much in the same way we might say that the Literary Prince, having been imprisoned (while he was still a vassal of the dynasty he overthrew) by his jealous suzerain, during the years B. C. 1144, 1143, 1142, made in the seclusion a different arrangement of the Eight Diagrams; and he, with one of his sons, Chow kung, who labored after the establishment of the family in the sovereignty, gave permanency to their joint development of the national philosophy by attaching a few words of explication to each of the sixty-four doubled diagrams. Fuh-he's diagrams, as re-arranged, together with the short explications of the first monarch of the Chow dynasty and his son, form the basis or text of the first of the Chinese Sacred Books, the Yih-king. After an interval of six centuries Confucius appeared, and, among his other celebrated literary labors, undertaken in B.C. 490 and the following years, edited the Yih king, and appended those annotations, which have given the work its subsequent value. What philosophical views may have been attached to the Yih king of Wan-wang and Chou-kung by the contemporaries of Confucius, we know not. That work, together with the other three works edited or compiled by Confucius, viz., the Shoo-kings and the Le-ke, constitute the whole of the ancient literature of China which has come down to posterity, and who have it only, as it was explained, arranged or modified in passing through his hands. It is well known that he expressly repudiated portions of it, as containing doctrines adverse to the views which he held and strove to diffuse. The names only of some celebrated ancient books, one dating from the times of Fuh-he himself, have been preserved. It is these cricumstances which constitute the labors of Confucius the commencement of a distinct literary epoch. Apart from the labors of Confucius himself, the permanent literary results of this, the first of the two great epochs to which attention has been directed, are contained in the collection of works called the Four Books, composed by different members of the school which he founded. The last contains a record of the ethical and political teachings of Mencius (Meng-tse) who, as already stated, died in B.C. 317, and closed the first epoch.

About B. C. 221, the prince of Tsin, one of the vassal states into which the till then feudally governed China had been divided, made himself sovereign of the empire under the title of Che-hwang. He was a great conqueror, and was successful in opposing the inroads of the northern barbarians, the Heung noo or Huns, one of his measures to withstand whom was the erection of the celebrated Great Wall.

In the beginning of the tenth century printing was invented, and in A.D. 932 that mode of multiplying copies of books received the imperial sanction ; a printed Imperial edition of all the sacred works having been then published. "The greatest of all the arts" was not invented in Europe till five hundred years after this. Marco Polo speaks much of the "stamped" paper money of the Chinese ; and he must have seen their printed books.

Chow-tsze was the originator of the second epoch of philosophical development. To him is ascribed the merit of having revived that distinct knowledge of the greatest truths which had been lost to the world for the thirteen centuries that had elapsed after the death of Mencius. And he regained that knowledge by the independent efforts of his own mind, unaided by any master. Only two of his works have been preserved, the Tea-heih-too-shwo and the Tungshat. He died in A. D. 1200 ; and in A. D. 1241, an Imperial rescript ordered his tablet, with those of four of his immediate predecessors, whose works he had annotated, to be placed in the temple of Confucius, which is to be found in every district city throughout the empire. From that time to this, a period of six hundred years, his views of philosophy, morality, and politics have been supreme in China. At this day, his commentaries on the Yih king and the Four Books are learnt by heart by millions of Chinese, with the text of these works. The Public Service examinations cannot be passed unless this be done.

The fact is, however, that though the authors of the first and second epochs, Confucius himself included, professed to teach only what was contained in pre-existing sacred books, and though they possibly themselves believed that they did only teach what was virtually contained in such pre-existing books ; they nevertheless did, in each case, originate some entirely new views and doctrines.

The Yuen dynasty which succeeded the Sungh in A.D. 1271 were Mongols, immediate descendants of Chenghis Khan, who adopted Chinese civilization only in a very slight degree, and were consequently soon expelled again. The first emperor of the native dynasty, the Ming, which succeeded them in A. D. 1368, though a promoter of literature, was himself illiterate, having been a servant in a monastery. But the third sovereign of the line who began to reign A.D. 1403, had a splendid library formed and several encyclopediac works compiled. He published an edition of the Sacred Books, which is known by the affix to their title of "Tatreuen," in full completeness.'

Mahomedans. There are many thousand mahomedans in China, who are neither zealous in the propagation of their doctrines nor over strict in the observances of their religion.

Christians. Christianity seems to have penetrated three times into China, once in the 5th or 6th century; and a French missionary who had been very much in the interior of China, states the total number of native christians at five hundred thousand. M. Huc's estimate is eight hundred thousand; which, as he correctly observes, is a mere nothing in the enormous population of the country. These catholic christians are, however, not collected in one place, but live scattered over all China proper in small communities, called by the French chretientes. There being, as M. Huc states, scarcely any converts made at the present day, it follows that the members of these christianities are educated and trained as christians from their infancy; being either foundlings or of christian Chinese parentage. They are Chinese in the outward and more obvious characteristics of dress and features, but in other respects are more like Bavarians or Neapolitans than their own countrymen, from whom they differ in many of those social and domestic customs and in all those mental peculiarities which constitute the special nationality of the Chinaman.—(*T. T. Meadows' Chinese and their Rebellions, p.* 52 to 337.)

The general who conquered southern China, is stated to have been a Nestorian Christian, and to have built a church at Nankin for those of his own faith. Marco Polo was himself in high favour, though a Roman Catholic. We learn from the Mahommedan travellers who visited China as early as A. D. 850, that it then prevailed; and that, when Canton was taken and sacked in A. D. 877, by a rebel army, as many as 120,000 Mahommedans, Jews, Christians, and Parsees perished in the sack. (*Prinsep's Tibet, Tartary and Mongolia, p.* 10.) Christianity did, in fact, penetrate into China as early as the 5th and 6th century; as especially in the 13th, it was very flourishing; at this epoch there existed at Pekin an archbishop with four suffragans. The Chinese have also for a long time had at their command a precious collection of books of Christian doctrine, composed by the ancient missionaries, and which, even in a purely literary point of view, are much esteemed in the empire. These books are diffused in great numbers throughout all the provinces. (*Huc. Chinese Empire, Vol. I, p.* 16.) A popular uprising, however, began in 1848, and still continues. It originated in 1830 in the teachings of Mr. Roberts, an American missionary, and of an earnest Chinese disciple. It has become blended with the national struggle of the Tae-ping or the votaries of "the divine kingdom of eternal peace," and whether Chinese scepticism will prevail is still uncertain. But, according to the writings of Hung, once a schoolmaster, but afterwards the "Heavenly Prince" and acknowledged head, the convert on coming to baptism must pronounce a solemn vow to take the belief in the Father, Son, and Holy Ghost, for his rule of life, and that he is resolved to dedicate this life to God, in love to the brethren; and visits to the tombs of ancestors were enjoined, in gratitude for the release of their immortal souls from this troublesome life, and to renew the vow of life-long devotion to the cause of God and the brethren. The Bible is the word of God, and the Ten Commandments the moral law. Opium smoking, a sin equal to adultery. (*Bunsen God in Hist, Vol. I, p.* 272.) The Chinese designate the Christian religion as the religion of the Lord of heaven, and M. Huc observes that every one must be struck with the new doctrines with which the proclamation and manifestoes of the Pretender and his generals have been filled. He styled himself Tien-ti or celestial virtue. The unity of God has been distinctly expressed; and around this fundamental dogma have been grouped a number of ideas borrowed from the Old and New Testament. War has been declared at the same time to idolatry and to the Tartar dynasty. (*Huc Chinese Empire, Vol I, p.* xv. *p.* 68.)

Language. The Chinese language is usually placed amongst the Turanian group, in which are included a large mass of languages very imperfectly known, and supposed by some to have wide differences. Messrs. Rask and Castern have studied this family of tongues, and the publication of their researches formed an era in philosophical research. Almost every known tongue can be placed under one of three broad divisions: 1 *Monosyllabic,* of which the Chinese is a striking example, a language literally without a grammar and without words, in our sense of the term; possessing 450 sounds and upwards of 40,000 ideographic signs to represent them. Thus, whenever a Chinese is unable to express himself clearly, even by the aid of intonation and gesture, he must have recourse to the infallible expedient of writing. 2. *Agglutinating*: the characteristic of the Tartaric and African languages, in which several words are placed side by side, each having its own distinct meaning. 3. *Polysynthetic*: characteristic of the American languages, which not only, like the Aryan and other languages, combine into single words the minor modifications of each separate conception, but compress even whole sentences into one vast, almost unpronounceable word, In this group some include the Basque language, which has so long preserved its identity, although placed between two mighty kingdoms, and which in its grammatical structure resembles the aboriginal languages of America, and them alone.

The Chinese written language consists of picture words. The alphabet is a hieroglyphic system, each word having its own graphic representative. Chinese is monosyllabic; no word is allowed more than one consonant and one vowel. Hence the possible number of words is extremely small, but each word can be pronounced with various accents and intonations, of which there are said to be 450, and the number of words, or ideas in Chinese is said to be 43,496. The vastness of this amount will be appreciable by mentioning that only about 5000 words occur in the christian Old and New Testament. M. Remusat, in his Grammaire Chinoise, notices three styles of the Chinese written language, which he calls, style antique, style litteraire, and langue des magistrats, or langue mandrinique; but Mr. Meadows considers (*Des. Notes, p.* 13), he is not quite correct in these definitions. Nevertheless, M. Remusat is followed by M. Huc, who says that the Chinese, in their written language, have three distinctions of style: the antique or sublime style, the type of which is to be found in the ancient literary monuments, and which exhibits very rare grammatical forms. The vulgar style; and the academic style, which partakes of the two preceding, being less concise than the antique, and less prolix than the vulgar. The vulgar style is employed for light productions, theatrical pieces, private letters, and proclamations intended to be read aloud. The spoken language is composed of a limited number of monosyllabic intonations; namely four hundred and fifty, which, by the very subtle variations of the accents, are multiplied to about sixteen hundred. It results from this, that all Chinese words are necessarily grouped in homophonous series, whence a great number of double meanings may arise either in reading or speaking, but their difficulty is avoided by coupling synonymous or antithetic words. In this manner the ambiguities disappear, and the conversation is no longer embarrassed. The language called Houan-hoa, that is to say, common universal language, is that which the Europeans wrongfully designate by the name of Mandarin language, as if it were exclusively reserved for the Mandarins or functionaries of government. The Houan-hoa is the language spoken by all instructed persons throughout the eighteen provinces of the empire, and in this, a distinction is made between the language of the north and that of the south. The first is that of Pekin; it is marked by a more frequent and sensible use of the guttural or aspirate accent. It is spoken in all the provincial government offices. (*Huc, Chinese Empire, Vol. I., p.* 319.)

Shu King, or Book of Records, is a work supposed to have been edited by Confucius. It contains the Annals of China nearly to the time of Confucius.

Sui King, the sacred books of the Chinese, were translated into latin by FatherLachartre a Jesuit Missionary of China.

Jin Kin,or classes of men, is a Chinese book of great authority. In it the " Sages" occupy the first chapter, and in this Confucius is placed high above all others.

Li, is a Chinese word of very extensive meaning, sometimes rendered, reason, courtesy, propriety, good breeding. The saying is Li and Wen (learning) make up the whole sum of human excellencies (*Bowring.*)

Currency. The only coined money in China, are the brass pieces with a hole in the centre. Silver is sold by the weight, and an ounce is the equivalent of from 1700 to 1800 of these brass coins, which are called " sapek" by Europeans (*Prinsep's Tibet, Tartary and Mongolia, p.* 50); they have some pieces of brass called *tsian*, and in Mongol *tchos*, of which the inhabitants of Siberia make Tchok and Tchek, they are of less value than a copec. A kind of notes are in circulation among private persons.

It cannot be doubted that the Chinese have communicated their weights to all the adjacent countries: a pekul is equal to 133½ lbs. avoirdupois, and four 4 lbs. being equal to 3 catties; 100 catty make a pikul.

10 Cash = 1 can.
10 Candarin = 1 mace.
10 Mace = 1 tail.
16 Tail = 1 cat.
100 Catty = 1 pik.

Calendar. The Han dynasty of China reformed the calendar. The Chinese, like all the natives of the north-east of Asia, reckon their time by cycles of 60 years, and give a different name to each year of the cycle. The Chinese cycle of sixty years is called Hwa-kea-tsze. The year commences from the conjunction of the sun and moon, or from the nearest new moon, to the fifteenth degree of Aquarius. It has twelve lunar months, some of twenty-nine, some of thirty days. To adjust the lunations with the course of the sun, they insert, when necessary, an intercalary month. Day and night are divided into twelve periods, each of two hours. (*Gutzlaff's Chinese History, Vol. I., p.* 73). The Chinese division of the day is therefore as simple as the English and not much unlike it. The Chinese begin the day an hour before midnight, and divide the twenty-four hours into twelve parts of two hours each. Instead of numbering their hours they give a different name to each period of two hours; the names and corresponding time, according to the English mode, are as follows:

Tsze......	11 to 1 Morning.	Woo...	11 to 1 Afternoon
Chow.....	1 to 3	We ..	1 to 3
Yiu......	3 to 5	Shin...	3 to 5
Maou...	5 to 7	Yew...	5 to 7
Shin......	7 to 9	Seo ...	7 to 9
Sze......	9 to 11	Hae ...	9 to 11

The word Keaou is added when the hour of each period is intended, and Ching for the last. Thus, Keaou tsze is 11 at night, and Ching tsze 12 at night; Keaou chow 1 in the morning, Ching chow, 2 &c. &c. The word K'hih "quarter," is used after the hour with the numerals yih 1, urh 2, or sau 3, to subdivide the hours into quarters, which is the smallest division commonly employed: example, ching maou yih k'hih, a quarter past 6; keaou woo urh k'hih, half past 11.

This division still maintains itself in legal and official language, though the practical value of the European clocks, and watches, now largely used in China, is gradually substituting for it the occidental division of twice twelve hours. (*T. T. Meadows' Chinese and their Rebellions, p.* 326-330.)

Industry and Art. The Chinese are a laborious, and diligent hearty working, painstaking race, skilful in economising materials and possessed of no mean share of inventive power. Their knowledge of the magnet is supposed to have led them to a knowledge of the compass. Their ordinary ink composed of lamp black and glue is sufficiently pure to be used in the arts. Their ordinary cotton cleaning machine, for freeing the cotton fibre from the seeds, has not yet been equalled by all the mechanical skill of Europe. In all working in metals, in ordinary blacksmith work, metal smelting alloys, particularly their white metal of copper, zinc, iron, silver and nickel, their sonorous gongs and bells, that of Peking being 14½ feet to 13 feet, and their ingenious metallic mirrors, some with engravings, their manufactures of porcelain, glass and glazes, their carving and engraving gems, of agates, and rock crystals and on ivory and wood have, for centuries, been famed, and much of it excites the admiration of Europe, as also does their lacquer and varnish work. In weaving they are superior, in candle-making not inferior, but in painting and sculpture they do not excel. They are bold, self reliant skilful gardeners, and excellent farmers, and date their skill in these back four thousand years.

Fo-hi is the first named sovereign of the Chinese, but the date of his reign is not ascertained. Yu, the Great, is the first monarch of whose reality there is no doubt, and his accession occurred about 2000 years before the christian era. Husbandry and silk weaving were the earliest of the arts cultivated by this people; the former was introduced by Shin-nong, the immediate successor of Fo-hi, and silk weaving by an empress, and to both of these inventors the Chinese perform annual sacrifices on their festival days. Husbandry is still highly honored, and, annually, at a grand festival in honour of the spring, the emperor ploughs and sows a field. The Egyptians, Persians, and Greeks held games and festivals mingled with religious ceremonies at seed sowing, and in England, formerly, the festival of Plough Monday was held, during which the plough light was set up before the image of the patron saint of the village. The Chinese, in the reign of Hoang Ti, invented the magnetic needle, the smelting of copper for making money, and vases of high art, and money seems to have been coined in gold and silver and lead, so early as Confucius' time, but many payments are still made in kind or by pieces of silver. Most of their calculations are made by a reckoning board. Sir John Davies is of opinion that the art of printing, the composition of gunpowder, and the magnetic compass, which he says are justly considered in Europe as three of the most important inventions or discoveries of modern times, had their first origin in China. Their printing is by a system of stereotype, the types being made from the pear-tree wood, called by them *ly-mo.* Their paper is made from refuse paper, rags of silk and cotton, rice-straw, the liber of a species of morus, but principally of bamboo.

The Chinese affirm that eighteen centuries ago they had discovered the secret and means of manufacturing paper. Before that invention they used to inscribe written characters on strips of bamboo or sheets of metal, using a style, or pen of iron for the purpose of marking the characters, and this they assert, had been the practice of their nation from the most remote ages. Before the art of paper-making had arrived at perfection, the Chinese adopted the practice of writing upon white silk, or cotton, with a bamboo pen; this was found a more convenient method than writing either on strips of bamboo or sheets of metal, as the silk or linen could be folded into a small compass. Paper is manufactured from various materials, each province or district having its own peculiar manufacture. In Fo-kein province, it is made from young soft bamboo; in the province of Che keang, it is made from paddy straw; in the province of Kiang-Nan, it is made from the refuse silk, and this paper is very fine and delicate, being highly valued for writing complimentary inscriptions upon. To size the paper and render it fit for ink, they make a glue, somewhat similar to isinglass, from fish bones; these they chop up very small, and soak the mass in water which is continually renewed. When all oily impurity is extracted, they add a due proportion of alum, which has been dissolved. Over the vessel in which this mixture is, a rod is laid; a cleft-stick is used for holding the sheet of paper during the process of dipping; as soon as the paper has been sufficiently saturated it is withdrawn, by gently rolling it round the stick which has been laid over the vessel; the sheet of paper is afterwards hung to dry either near a furnace, or in the sun. Paper with written or printed characters is reverently preserved in all eastern countries. In China, fragments of waste paper are carefully picked up from the streets lest any of the words of sainted men should be dealt with profanely. Writing seems to have been known from the earliest times, and literature has always held a high place.—*Sirr's China and the Chinese, Vol.* II., *p* 1.

They are skilful carvers. *Ivory* comes to China principally from Cochin-China and Africa, via Bombay, and always finds a ready sale at Canton; the largest and best tusks weigh from 16 to 25 pounds each, decreasing to five or six pounds. The cuttings and fragments also form an article of trade, as the workmen can employ the smallest pieces. *Bones* and *horns*, especially the long horns of buffaloes, are in China worked into handles, buttons, &c. Rhinoceros' horns are brought from Burmah, from Sumatra, and from Africa through Bombay; they are highly valued by the Chinese from a notion that cups made from them sweat whenever a poisonous mixture is poured into them. A perfect horn sometimes sells as high as $300, but those that come from Africa do not usually rate above $30 or $40 each. The principal use of these horns is in medicine and for amulets, for only one good cup can be carved from the end of each horn; and consequently the parings and fragments are all preserved. The hard teeth of the walrus, lamantin, and other cetaceous animals, also form an article of import into China from the Pacific, under the designation of *sea-horse* teeth; they weigh one or two pounds a piece, and the ivory is nearly as compact, though not so white, as that of the elephant. The delicate carving of Chinese workmen is well known, and has often been described; many specimens of it are annually sent abroad. Few products of their skill are more remarkable than the balls, containing ten or twelve spheres cut out one within another. The manner of cutting these is simple. A piece of ivory or wood is first made perfectly globular, and then several conical holes are bored into it in such a manner that their apices all meet at the centre, which is usually hollowed out an inch or less after the holes are bored. A long crooked tool is then inserted into one of the conical holes, so bent at the end and stoppered on the shaft that it cuts the ivory at the same distance from the surface when its edge is applied to the insides of the cone. By successively cutting a little on the insides of each conical hole, their incisures meet, and a spherical is at last detached, which is now turned over and its faces one after another brought opposite the largest hole and firmly secured by wedges in the other holes, while its surfaces are smoothed and carved. When the central sphere is done, a similar knife, somewhat larger, is again introduced into the holes, and another sphere detached and smoothed in the same way, and then another, until the whole are completed, each being polished and carved before the next outer one is commenced. It has been supposed by some that these curious toys were made of hemispheres nicely luted together, and they have been boiled in oil for hours in order to separate them and solve the mystery of their construction. Fans and card-cases are carved of wood, ivory, and mother-of-pearl in alto-relievo, with an elaborateness which shows the great skill and patience of the workman, and at the same time his bad style in drawing, the figures, houses, trees, and other objects being grouped in violation of all propriety and perspective. Beautiful ornaments are made by carving roots of plants, branches, gnarled knots, &c., into fantastic groups of birds or animals, the artist taking advantage of the natural form of his materials. Models of pagodas, boats, and houses are also entirely constructed of ivory, even to representing the ornamental roofs, the men working at the oar, and women looking from the balconies. Baskets of elegant shape are woven from ivory splinths; and the shopmen at Canton exhibit a variety of seals, paper-knives, chessmen, counters, combs, &c., exceeding in finish and delicacy the same kind of work found anywhere else in the world. The most elaborate coat of arms, or complicated cypher, will also be imitated by these skilful carvers. The national taste prefers this style of carving on plane surfaces; it is seen on the walls of houses and granite slabs of fences, the wood-work of boats and shops, and on articles of furniture. Some of it is pretty, but the disproportion and cramped position of the figures detract from its beauty. The ivory carving, ebony and other hard wood ornaments, the bronzes and porcelain specimens, are all exquisitely worked; in England varying from 4*l.* and 5*l.*—(*William's Middle Kingdom, Vol.* II., *pages* 141 *and* 408. *Yule's Embassy, p.* 59. *Hodgson's Nagasaki.*)

In the arts, and in the economic application of materials, the Chinese are very skilful. The candles used in Japan are made of an oil said to be pressed out of the seeds of the Rhus succedanea? This oil becomes, when concrete, of the consistence of tallow, and is not so hard as wax. The province of Fetsigo, more particularly, produces this tree, and consequently supplies the greatest quantity of this oil. In the eastern parts of China, the product of the tallow tree, Stillingia sebifera, and beef and hog's tallow in the south, are used in the manufacture of candles. Wax is only employed to incase the tallow or lard, which, from the heat of the climate and its unclarified condition, never becomes hard.

Lacquer. The beautiful lacquer-ware, which is so universally admired, is made principally near Nankin, being considered far superior to that which is made in Kwan-tung and the other provinces. The following is the mode of preparing the ware, which is frequently used for articles of furniture, and the process of the manufacture of a table, which has a landscape with figures delineated on the top in gold, may be thus described. The timber being first put together, and rendered perfectly smooth, is covered with transparent paper, besmeared with pork fat. As soon as this paper is quite dry, it is covered with a paste made from a peculiar description of clay. When this substance has become completely dry and hard, it is rubbed down with a whetstone, to remove all inequalities of surface; as soon as this process is complete, the lacquer is laid on, then allowed to dry and harden, when the process is again repeated three or four times more, the lacquer being allowed to become completely dry and hard between each several coating. The intended landscape is traced on the top of the table by throwing a fine white powder, over paper, on which the landscape has been traced, by means of small perforations, thus forming the outline of the picture: a minute instrument, somewhat resembling a style, is drawn carefully over the perforations, by this means tracing the landscape on the surface of the table. The picture is then besmeared with a compound of size and red paint; the gold, first reduced to a powder, is then applied; the raised appearance of the figures being produced by means of a preparation of gum combined with other ingredients: the picture is allowed to become perfectly dry, when, if requisite, another coat of the lacquer or varnish is then added. To prepare this lacquer-ware in perfection, requires a lengthened period, and a Chinese manufacturer mentioned that to produce a fine specimen, elaborately painted, six months ought to elapse between the commencement and the termination of the work, thus affording time for each coat of lacquer to become thoroughly hardened before another is applied. The designs traced upon their porcelain or China are very inferior, but the colours used by the artists who paint these designs are far superior to any European colouring.

Colours. The Chinese red colour is made from Taow-fan, or copperas; their mode of preparation is by putting a pound of copperas into a crucible, over which another crucible is luted, having a small hole in it, which is lightly covered over: around these they pile charcoal, and enclose the whole within bricks, when they fire the charcoal, and as soon as the fumes, issuing from the aperture in the crucible, become of a light colour, a small quantity of the copperas is taken therefrom, laid upon fir-wood, and moistened with water; if the colour then prove to be a bright red, they remove the fire, if not, they allow the copperas to remain subjected to the heat until it assumes that colour, and then remove the fire. When the crucibles are cool, a cake is found in the lower one, but the finest colour is encrusted on its sides, and on the bottom of the upper crucible, which is kept separate from the cake; the pound of copperas produces about four ounces of colour. The white colour is made from calcined transparent flint, to an ounce of the powder of which they add an equal quantity of white lead. Their beautiful green is prepared with one part of powdered calcined flint, two parts of white lead, and six parts of the scales of well hammered copper.

The violet is produced by adding an additional quantity of the prepared white to the green; yellow is made by combining equal portions of prepared white and red. All these various colours are used by the China-ware painters, having been previously dissolved in gum-water, to which they occasionally add saltpetre, copperas, or white lead. The colours are laid on after the first baking and varnishing of the China-ware, but the beauty and depth of the colouring is imperceptible until after the second taking.

China-ware. The Ow-mi-ew, or black China-ware, ornamented with gold, is very much prized in China, to make which they mix three ounces of azure, and seven of the oil of stones; this is laid on the ware, and when perfectly dry, it is baked, after which the gold is laid on, and the vessel is rebaked. The Towi-kie is a porcelain prepared simply by varnishing the vessels with a whitish ash-coloured varnish, made from calcined transparent white pebbles; this has the property of marbling and veining the ware, and giving it an appearance as if it had been fractured into many pieces, which had been carefully reunited; this China-ware is highly prized under the cognomen of the cracked porcelain.

Among the manifold and various manufactures of China, the gold and silver tinsel cloths of Pekin stand deservedly in high estimation; their chief value arises from the peculiar property which they possess of never tarnishing or becoming discolored.

The gold and silver filagree work of the Chinese equals any ever produced by ancient Venetian masters, and their chasing in silver is unrivalled. The art of enamelling on silver is also brought to great perfection in China, and specimens surpass any ever produced at Genoa.—(*Sirr's China and the Chinese, Vol. I., p.* 387. II, *p.* 1 to 4.)

Food. The great staff of life in China is rice, which is either eaten dry, or mixed with water, so as to resemble a soup. Out of rice they make their chief intoxicating liquor, which when good is something like strong whisky, both in its colourless appearance and its smoky flavour. Several vegetables are consumed, such as the sweet potato, Barbadoes millet, peas, beans, turnips, carrots, &c. Of their fruits, the orange, lichee, loquat and mangoes are much in use. Their favourite animal food is pork, the taste for which is national. There is a maxim prevalent among them, that "a scholar does not quit his books nor a poor man his pigs." The flesh of the bullock, sheep, deer, dog, cat, wild cat, rat, and horse is eaten, but compared with that of swine, it is a rarity. Fish are eaten in great abundance, either fresh, dried, or salted, and they rear great quantities of ducks and various species of fowl for the table. The comprehensive principle on which Chinese diet is regulated, is to eat everything which can possibly give nourishment. The luxuries consumed by the rich consist of the edible bird's nest, the beche de mer or sea slug, shark fins, fish maws, cow sinews, points of stag antlers, buffalo hides, which afford the gelatinous food considered so restorative. Amongst their delicacies also are dishes made of the larvæ of the sphinx moth, and of a grub bred in the sugar cane. In China, the various modes of catching and rearing fish exhibit the contrivance and skill of the Chinese quite as much as their agricultural operations. According to the Repository, at least one-tenth of the population derive their food from the water, and necessity leads them to invent and try many ingenious ways of securing the finny tribes. Nets are woven of hempen thread, and boiled in a solution of gambier (Uncaria gambier) to preserve them from rotting. The smacks which swarm along the coast go out in pairs, partly that the crews may afford mutual relief and protection, but chiefly to join in dragging the net fastened to their boats. In the shallows of rivers, rows of heavy poles are driven down, and nets secured to them, which are examined and changed at every tide. Those who attend these nets, moreover, attach scoops or drag-nets to their boats, so loaded that they will sink and gather the sole, ray, and other fish feeding near the bottom. Lifting nets, 20 feet square, are suspended from poles elevated and depressed by a hawser worked by a windlass on shore; the nets are baited with the whites of eggs spread on the meshes. Cormorants are trained in great numbers in the eastern provinces to capture fish, and are sometimes under such good order that they will disperse at a given signal, and return with their prey without the precaution of a neck-ring. A single boatman can easily oversee twelve or fifteen of these birds, and although hundreds may be out upon the water, each one knows its own master. If one seize a fish too heavy for it alone, another comes to his assistance, and the two carry it aboard. The birds themselves are fed on bean-curd, and eels or fish. They lay eggs when three years old, which are often hatched under barn-yard hens, and the chickens fed with eel's blood and hash. They do not fish during the summer months. The price of a pair varies from $ 5 to $ 8. Mussels are caught in small cylindrical basket traps, attached to a single rope, and floated with the tide near the bottom. The rearing of fish is an important pursuit, and the spawn is sometimes deposited in proper vessels, and placed in favorable positions for hatching. The Bulletin Universal for 1839 asserts that in some parts of China, the spawn so taken is carefully placed in an empty egg-shell, and the whole closed: the egg is then replaced in the nest, after the hen has sat a few days upon it, reopened, and the spawn placed in vessels of water warmed by the sun, where it soon hatches. Shell-fish and mollusks, both fresh and salt, are abundant in the Chinese market, but they have not been examined scientifically. Oysters of a good quality are common along the coast, and a species of Mactra, or sand clam is fished up near Macao. The pearl river affords two or three kinds of fresh-water shell-fish, of the genus Mytilus, which are obtained by dredging. The prawns, shrimps, crab, crawfish, and other kinds of crustacea met with are not less abundant than palatable, one species of crawfish, as large, but not taking the place of the lobster called lang hai, or dragon crab, cuttle-fish of three or four kinds, and the large king crab (Polyphemus), are all eaten by the Chinese though not relished by others. The true cod has not been observed on the Chinese coast, but several species of Serranus (as Plectropoma susuki, Serranus shihpan, megachir, &c.) generally called shippan by the natives, and garoupa by foreigners, are common about Macao, and considered the most delicate flavoured of any in the markets. Another common and delicious fish is the Polynemus tetradactylus or byuni-carp, usually called salmon by foreigners: isinglass is prepared from its skin. The pomfret, or stangyu of the Chinese (Stromateus argenteus), is a good pan-fish, but not so delicate as the sole-fish, many species of which abound in the shallows of the Bogue. Two or three species of mackerel, the Sciæna lucida, an ophiocephalus, the mullet, the white-rice fish and a kind of shad, complete the list of good table fish found in the markets of Canton.—(*Williams' Middle Kingdom, Vol. II, p.* 110, 169, 270 *&* 272.) Immense quantities of fish, are likewise, daily caught in the Chinese rivers. Their mode of catching them is ingenious and amusing. One day Mr. Fortune was going up a considerable distance in a boat, and set out a little before low-water, that he might have the full benefit of the flow of the tide, and get as far up as possible before it turned. On the side of the river, a few miles above Ningpo, he observed some hundreds of small boats anchored, each containing two or three men; and the tide turning just as he passed, the whole fleet was instantly in motion, rowing and sculling up the river with great rapidity. As soon as the men reached a favourable part of the stream, they cast out their nets and began to make a loud noise, splashing with their oars and sculls with the intention of driving the fish into the nets. After remaining at work in this spot for about a quarter of an hour, all the boats set off again, farther up, for the next station, when the crew commenced again in the same noisy manner, and so on for a long way up the river, as long as the tide was flowing; they then returned with the ebb, loaded with fishes for the next morning's market. But the most singular of all the methods of catching fish in China is that of training and employing a large species of cormorant for this purpose, generally called the fishing cormorant. These are certainly wonderful birds. I have, he says, frequently met with them on the canals and lakes in the interior, and, had I not seen with my own eyes their extraordinary docility, I should have had great difficulty in bringing my mind to believe what authors have said about them. The first time I saw them was on a canal a few miles from Ningpo. I saw them on my way to a celebrated temple in that quarter, where I intended to remain for some time, in order to make collections of objects of natural history in the neighbourhood. When the birds came in sight, I immediately made my boatmen take in our sail, and we remained stationary for some time to observe their proceedings. There were two small boats, containing one man and about ten or twelve birds in each. The birds were standing perched on the sides of the little boat, and apparently had just arrived at the fishing ground, and were about to commence operations. They were now ordered out of the boats by their masters, and so well trained were they, that they went on the water immediately, scattered themselves over the canal, and began to look for fish. They have a beautiful sea-green eye, and, quick as lightning, they see and dive upon the finny tribe, which, once caught in the sharp-notched bill of the bird, never by any possibility can escape. The cormorant now rises to the surface with the fish in its bill, and the moment he is seen by the Chinaman he is called back to the boat. As docile as a dog, he swims after his master, and allows himself to be pulled into the San-pan, where he disgorges his prey, and again resumes his labours. And, what is more wonderful still, if one of the cormorants get hold of a fish of large size, so large that he would have some difficulty in taking it to the boat, some of the others, seeing his dilemma, hasten to his assistance, and with their efforts united capture the animal and haul it off to the boat. Sometimes a bird seemed to get lazy or playful, and swam about without attending to his business; and then the Chinaman, with a long bamboo, which he also used for propelling the boat, struck the water near where the bird was, without, however, hurting him, calling out to him at the same time in an angry tone. Immediately, like the truant schoolboy who neglects his lessons and is found out, the cormorant gives up his play and resumes his labours. A small string is put round the neck of the bird, to prevent him from swallowing the fish which he catches ; and great care is taken that this string is placed and fastened so that it will not slip farther down upon his neck and choke him, which otherwise it would be very apt to do. Since I first saw these birds on the Ningpo canal, I have had opportunities of inspecting them and their operation in many other parts of China, more particularly in the country between the towns of Hang-chow-foo and Shanghai. I also saw great numbers of them on the riverMin, near Foo-chow-foo. They sell at a high price even amongst the Chinese themselves—I believe from six to eight dollars per pair, that is, from 30s. to 40s. The fish-catching birds eat small fish, yellow eels and pulse jelly. At 5 P. M. every day each bird will eat six taels (eight ounces) of eels or fish, and a catty of pulse jelly. They lay eggs after three years, and in the fourth or fifth month. Hens are used to incubate the eggs. When about to lay, their faces turn red, and then a good hen must be set upon the eggs. The date must be clearly written upon the shells of the eggs laid, and they will hatch in twenty-five days. When hatched, take the young and put them upon cotton spread upon some warm water, and feed them with eel's blood for five days. After five days they can be fed with eel's flesh chopped fine, and great care must be taken in watching them. When fishing, a straw tie must be put upon their necks, to prevent them from swallowing the fish, when they catch them. In the eighth or ninth month of the year they will daily descend into the water at ten o'clock in the morning, and catch fish until five in the afternoon, when they will come on shore. They will continue to go on in this way until the third month, after which time they cannot fish until the eighth month comes round again. The male is easily known from the female, in being generally a larger bird, and in having a darker, and more glossy feather, but more particularly in the size of the head, the head of the male being large and that of the female small. Such are the habits of this extraordinary bird. As the months named in the note just quoted refer to the Chinese calendar, it follows that these birds do not fish in the summer months, but commence in autumn, about October, and end about May—periods agreeing nearly with the eighth and third month of the Chinese year.—(*Fortune's Wanderings, pages* 104 to 113.)

Chinese fishermen, when they take one of those huge Rhizostoma which abound on the coast, rub the animal with pulverized alum to give a degree of coherence to the gelatinous mass. Mr. Crawfurd, after stating that the fisheries of the Indian islands form the most valuable branch of their commerce, and that a great variety of the fish caught are dried in the sun, proceeds to observe, that ordinary dried fish form no portion of the foreign exports of the Indian Islands, but three singular modifications of it do, fish-maws, shark-fins, and tripang, all of which are sent to China in large quantity from the northern coast of Australia. The people of Celebes, receiving advances from the resident Chinese, have been long in the habit of making annual voyages thither in quest of tripang. Gutted, dried in the sun and smoked, it is considered cured, and fit for its only market that of China, to which many hundred tons are yearly sent for the consumption of the curious epicures of that country. The fishery of the tripang is to China what that of the sardine, tunny, and anchovy is to Europe. There are no seas in the world more abounding in esculent fish than those of the Asiatic Archipelago, and some of them are of excellent flavour. Fish constitutes the chief animal aliment of all the inhabitants, and everywhere of those of the sea-coast who are by profession fishermen. Among the best fisheries are those of the eastern coast of the Malay Peninsula, those of the entire Straits of Malacca, of the northern coast of Java, and of all the coasts of Borneo and Celebes, with those of the Philippine Islands. The taking of the mother-of-pearl oyster, the pearl-oyster in a few places, of the holothurion or tripang, and of the shell tortoise, form valuable branches of the Malayan fisheries.—(*Crawfurd's Dictionary, page* 138.)

Domestic and social relations of the Chinese. Polygamy exists, and any man may have his second, third or inferior wives. Women, even as first wives, do not take a favourable position in their households, though as mothers their condition is vastly improved. Mr. T. T. Meadows (*Chinese and their Rebellions, pp.* 538-9) writes strongly on the injurious effects on women which the right to have many wives occasions. The Chinese differs seemingly from mahomedan polygamy in this, that a mahomedan woman can legally hold property, is the owner of her own dower, and each wife has a separate establishment and a separate allowance for herself. In China the extent to which wives are, by law and custom, in the power of their husbands, would produce deplorable effects, but for the almost unlimited power which law and opinion give mothers over their sons of every rank and age. So also the institution of polygamy is largely counterbalanced by the desire of all the men to marry early, in order to secure a progeny of sons as soon as possible. The condition of the Chinese woman is most pitiable : suffering, privation, contempt, all kinds of misery and degradation seize on her in the cradle, and accompany her pitilessly to the tomb. Her very birth is commonly regarded as a humiliation and a disgrace to the family, an evident sign of the malediction of Heaven. If she be not immediately suffocated, she is regarded and treated as a creature radically despicable, and scarcely belonging to the human race. Pan-houi-pan, celebrated among Chinese writers, though a woman, endeavours, in her works, to humiliate her own sex, by reminding them continually of the inferior rank they occupy in the creation. " When a son is born," she says, " he sleeps upon a bed ; he is clothed with robes, and plays with pearls ; every one obeys his princely cries. But when a girl is born, she sleeps upon the ground, is merely wrapped up in a cloth, plays with a tile, and is incapable of acting either virtuously or viciously. She has nothing to think of but preparing food, making wine, and not vexing her parents." In ancient times, instead of rejoicing when a child was born, if it happened to be a girl, they left it for three whole days on a heap of rags on the ground, and the family did not manifest the slightest interest in so insignificant an event. This public and private servitude of women, a servitude that opinion, legislation, manners, have sealed with their triple seal, has become, in some measure, the corner-stone of Chinese society. The young girl lives shut up in the house where she was born, occupied exclusively with the cares of housekeeping, treated by every body, and especially by her brothers, as a menial, from whom they have a right to demand the lowest and most painful services. The amusements and pleasures of her age are quite unknown to her ; her whole education consists in knowing how to use her needle, she neither learns to read nor to write ; there exists for her neither school nor house of education ; she is condemned to vegetate in the most complete and absolute ignorance, and no one ever thinks of, or troubles himself about, her, till the time arrives when she is to be married. Nay, the idea of her nullity is carried so far, that even in this, the most important and decisive event in the life of a woman, she passes for nothing; the consulting her in any way, or informing her of so much as of the name of her husband would be considered as most superfluous and absurd. In China a woman counts for nothing. The law ignores her existence, or notices her merely to load her with fetters, to complete her servitude, and confirm her legal incapacity. Her husband, or rather her lord and master, can strike her with impunity, starve her, sell her, or, what is worse, let her out for a longer or shorter period, as is a common practice in the province of Tche-kiang. Polygamy aggravates the sufferings of the Chinese wife. When she is no longer young, when she has no children, or none of the male sex, her husband takes a second wife, of whom she becomes in some measure the servant. The household is then the seat of continual war, full of jealousies, animosities, quarrels and not unfrequently of battles. When they are alone they have at least the liberty of weeping in secret over the cureless sorrows of their destiny. The little Chinese girl born in a christian family is not murdered, as is often the case among the pagans. Religion is there to watch over her at her birth, to take her lovingly in its arms, and say, here is a child created in the image of God, and predestined, like you, to immortality.—(*Huc Chinese Empire, Vol.* I., *pp.* 248 to 252.)

The bride is seldom seen by the husband until she leave the sedan chair in which she is conveyed, with her belongings, to his house. Mandarin ducks are introduced at marriages as patterns of connubial felicity. In the little feet of the Chinese women, the four smaller toes appear grown into the foot ; the great toe being left in its natural position. The fore part of the foot is so tightly bound with strong broad ligatures, that all the growth is forced into height instead of length and breadth, and forms a thick lump at the ancle ; the under part measures scarcely four inches long and an inch and a half wide. The foot is constantly bound up in white linen or silk, and strong broad ribbons, and stuck in a very high-heeled shoe. The crippled fair ones trip about with tolerable quickness ; to be sure they waddle like geese, but they manage to get up and down stairs without the help of a stick. (*Sinnett's Lady's Voyage, p.* 50.) Infanticide, of which the husbands are the only perpetrators, is not uncommon; but female children only are murdered, and those immediately after their birth. This horrible crime meets with no punishment from the laws of the country ; a father being the sovereign lord of his children, he may extinguish life whenever he perceives, or pretends that a prolongation of it would only aggravate the sufferings of his offspring.

The Chinese are not a moral, though they are a ceremonial people. Their usual salutation, when meeting, is Haou-tsing-tsing. Are you well ? Hail ! Hail ! They, like most of the natives of the East, waste much time before commencing the business for which they meet. M. Huc tells us that the conversation must always begin on indifferent and mostly insignificant subjects, and this is, perhaps, the most difficult part of the ceremonial. In China, you generally have to pass about two hours in saying nothing, and then, at the end of the visit, you explain in three words what really brings you there. The visitor rises and says, "I have been troublesome to you a very long time;" and, doubtless, of all Chinese compliments, this is the one that most frequently approaches the truth. They are not truthful. Sir John Bowring says of them that his experience in China, and many other parts of the East, predisposes him to receive with doubt and distrust any statement of a nature when any, the smallest, interest would be possibly promoted by falsehood. (*Bowring's Siam, Vol.* I., *p.* 105.) They are largely given to the use of opium. Mr. Knowlton estimates that there are 2,351,115 confirmed opium smokers, or one in every 170 of the population.

Burial customs. In China, the tombs of the opulent are decorated with statues of men and horses. They run into excess in mourning for the death of near relations. Every part of the ceremonial is exactly regulated; even the period, manner, and degree of the mourner's grief being duly prescribed. The corpse being dressed in warm clothes, is deposited in a substantial coffin, and kept for several days above ground, whilst the survivors express their measured grief by gesture, dishevelled hair, sackcloth, and mournful silence. When a lucky spot has been selected for the grave, the corpse is consigned to the bosom of our universal mother, earth. Building a tomb in the form of a horse-shoe, they inscribe thereon the name of the deceased, erect a tablet to his memory in the hall of his ancestors, and repair annually to the grave, in order to prostrate themselves before the manes, and to offer victuals in sacrifice to the spirits. In the temples, divine honours are paid to their memory. To supply their full wants, in the other world, they burn gilt paper, paper chariots and houses, with every necessary article of furniture, which are supposed to be changed in the other world into real utensils; whilst the gilt paper, when burnt to ashes, becomes so much ready money. The greater the personage, the more protracted is the mourning; the emperor mourns three years for his parent, and every good subject follows his august example. Mandarins resign their office during this period of affliction, literati avoid entering the examinations, the common people abstain for some time from their labour. Chinese "suttee" prevailed to a considerable extent until about a century ago. It does not appear, however, to have been regarded as a compulsory rite, but was generally the widow's own choice to show her extreme fidelity, or to escape the hardships of widowhood, or in the case of dutiful sons, to save the life of a parent. Fire was never used, but opium, poison or starvation was the means of suicide employed. Yiun Chang was the first emperor who discountenanced those practices, which his immediate predecessors had encouraged; and he forbade honorary tablets to be erected to self immolating victims. In 1792 a memorial was presented to the emperor praying for the dedication of a tablet to a most dutiful son, who had cut out his liver in order to cure his mother's sickness. The imperial "Board of Rites," after mature deliberation, respectfully observed that the practice of cutting out the liver is that of the ignorant, showing a contempt for their lives, and after all, but foolish devotion; and a decree was issued discountenancing the custom.

The China seas are celebrated for their furious gales of wind, known among seamen as typhoons and white squalls. Within the region of the China Sea there are no five month monsoons. They do not prevail from the west of south more than two or three months. Between 15° and 20° north, 110° and 115° east, there appears to be a system of three monsoons; that is, one from the north-east in October, November, December and January; one from east in March and April, changing in May; and another from the southward in June, July and August, changing in September. The great disturber of the atmospheric equilibrium appears to be situated among the plains and steppes of Asia; their influence reaches up to the clouds, and extends to the China Seas; it is about the changing of the monsoons that these awful gales, called typhoons and white squalls are most dreadful. In like manner, the Mauritius hurricanes, or the cyclones of the Indian Ocean, occur during the unsettled state of the atmospheric equilibrium, which takes place at that debatable period during the contest between the trade-wind force and the monsoon force, and which debatable period occurs at the changing of the monsoon, and before either force has completely gained or lost the ascendency. At this period of the year, the winds breaking loose from their controlling forces, seem to rage with a fury that would break up the very fountains of the deep.—*Maury's Physical Geography, p.* 424. *Royle Arts, &c., of India, page* 484. *Thunberg's Travels, Vol.* iii., *p.* 188. *Rhode MSS. Rev. Frederic W. Farrar, M. A., F. R. S. of Harrow, Honorable Mr. Morrison, Reverend Mr. Williams. Mr. Fortune. Proceedings of Bombay Committee for Great Exhibition of* 1861. *Monthly*

Bombay Times, *25th November* 1850, *to 24th June* 1851. *Edinburgh Review for July* 1867. *Dr. Watson, and Dr. Taylor quoted in same. Madras Exhibition Juries, Rep. Gutzlaff Rev. Charles, Chinese History* 1834. *Forbes, Lt. F. E., Five Years in China* 1868. *Meadows, Thomas Taylor, Desultory Notes on the Government and People of China* 1867. *Ib. The Chinese and their Rebellions* 1856. *Sirr, Henry Charles, M. A., China and the Chinese*, 1869. *Huc, M., The Chinese Empire* 1855. *Journey through Tartary, Tibet and China*, 1852. *Wade's Chinese Army* 1851. *Thomas Frances Latham's Descriptive Ethnology. Duhalde History of China. Huc. Christianity. Bunsen's God in History I.*, 259, 265. *Journal of the Indian Archipelago, Novr. and June* 1848, *p.* 349. *Prinsep's Tibet. Tartary and Mongolia, p.* 10. *Timkouski* ; *Sinnett.* See Monsoon. Pulo Aor or Wawoor. Pulo Repon or Saddle Island. Pulo Pisang or Pambeelan. Typhoon. Boats. Dyes. Fisheries. Cloths. Spinning. Weaving.

CHINA-ALLA. Syng. China root.

CHINA AVAGUDA. Trichosanthes incisa, *Rott.*

CHINA-BARK, a commercial name given to the bark of *Buena hexandra*, a plant belonging to the natural order *Cinchonaceæ*. It is used as a febrifuge, but is less powerful than the barks obtained from the species of *Cinchona.—Eng. Cyc. p.* 1023.

CHINA BOX. Murraya exotica.

CHINABUCKEER, in l. 95° 53′ E., and l. 16° 14′ N., a branch of the Irawady river. See Rangoon.

CHINA CAMPHOR. See Camphor.

CHINA COTTONS. See Cottons.

CHINA DULA GONDI, also Revati dula gondi, Tel. Tragia cannabina.

CHINA GRASS, or China Flax.

Bœhmeria nivea, *Gaud.*		Urtica tenacissima. *Roxb.*	
Urtica nivea, *Linn*		Ramium majus, *Rumph.*	
Rheea	ASSAM.	Rami	BENG. MALAY. JV.
Inan Bonoa	,,	Tali Rami,	,,
Gambe	EAST CELEBES.	Lepeeah	NEPAUL.
Tchou Ma	CHIN.	Kunkura	RUNGPORE.
Chu.	,,	Kunchura of	,,
Karao	JAP.	Pan	SHAN.
Tsjo	,,	Kaloi of	SUMATRA.
Mao	,,	Kalovee	,,

This nettle grows in all the moist countries from Bengal, through Rungpore, Assam into China, and southward all through the Malay Peninsula into Sumatra, Java, and Celebes. It was fully described by Dr. Roxburgh, (iii. 590) as Urtica tenacissima. In Bengal and Assam its fibre has been used only for string and ropes by the fishermen and by the Dom race of Assam. But in China, where it has long been woven into the China grass cloth, it is carefully cultivated, and great care is also taken in the process of cutting down, scraping, peeling, steeping and bleaching the fibre. These indeed are detailed minutely in the Imperial Treatise of Chinese Agriculture, lib. lxxviii, fol. 3. When grown from seed, a sandy soil is preferred, the ground is repeatedly dug, formed into beds, a foot broad and four feet long, raked and smoothed and watered, again raked and again smoothed, and a pint of seed mixed with four pints of earth is scattered on the surface of six or seven beds, and left uncovered in. They are sheltered from the sun by a canopy of matting or grass, which is kept damp, and this shelter is retained till the plants be an inch or two high. The young plants are then to be transferred into a stiffer soil, which is afterwards repeatedly hoed, and top dressings of fresh horse dung, ass, or cow dung can be used. This process is adopted only where the roots of old plants are not obtainable. The plant grows best from shoots or layers. Dr. Royle (Fib. pl. p. 344) gives the following as the Indo-Chinese method for preparing the Rheea Fibre, as adopted in Upper Assam, by Major Hannay.

To cut the Rheea.—The Rheea is fit for cutting when the stems become of a brown colour for about six inches upwards from the root. Hold the top of the stalk in the left hand, and with the right hand strip off the leaves by passing it quickly down to the root, and cut off with a sharp knife, taking care to be above the hairy networks of the roots, as these should be covered up with manure immediately to ensure another crop quickly ; lop off the tender top to the stalk, and make the reeds up into bundles of 200 or 250, if the stripping process is not to be carried on in the field or garden ; but it is best to strip off the bark and fibre on the spot, as the burnt ashes of the stem afford a good dressing for the roots along with dry cow dung. *To strip off the Bark and Fibre.*—The operator holds the stalk in both hands nearly in the middle, and pressing the forefinger and thumb of both hands firmly, gives it a peculiar twist, by which the inner pith is broken through ; and then passing the fingers of his right and left hand rapidly, alternately, towards each end, the bark and fibre is completely separated from the stalk, in two strands.

Making up into Bundles.—The strands of bark and fibre are now made up into bundles of convenient size, tied at the smaller end with a shred of fibre, and put into clean water for a few hours, which he thinks deprives the plant of its tannin or colouring matter, the water becoming quite red in a short time.

Cleaning Process—Is as follows : The bundles are put on a hook fastened in a post, by means of the tie at the smaller end, at a convenient height for the operator, who takes each strand separately of the larger end in his left hand, passes the thumb of his right hand quickly along the inner side, by which operation the outer bark is completely separated from the fibre, and the riband of fibre is then thoroughly cleaned by two or three scrapings with a small knife. This completes the operation, with some loss, however, say one-fifth, and if quickly dried in the sun it might at once be made up for exportation; but the appearance of the fibre is much improved by exposure (immediately after cleaning) on the grass to a night's heavy dew, in September or October, or a shower of rain during the rainy season. After drying, the colour improves, and there is no risk from mildew on the voyage homewards.—(*Royle Fib. Pl. page* 344.) The French have been growing China-grass in small quantities, ever since 1844, in which year a packet of China-grass seed was sent home by M. Leclancher, surgeon to the war corvette *La Favourite.* Twenty years' experience having proved that it will grow in France luxuriantly, processes for preparing and working up its fibre have been invented by MM. Mallard and Bonneau. But MM. Mallard and Bonneau do not obtain the fibre in a state in which it has that lustre which distinguishes it when prepared by Mr. Gray's process, or in which it is capable of being spun by itself,—they work it up mixed with half its weight of Surat cotton. The report of the Rouen Chamber of Commerce declares that China-grass fibre has an affinity for colouring matters at least equal, if not superior, to that of the very finest kinds of cotton. It is found that the plant will flourish north of Paris, and even in Belgium. The process here alluded to as that of Mr. Gray is said to produce China-grass fibres almost as strong as so much silk, quite as free and unentangled as the fibres of the most perfect samples of cotton wool, and evidently capable of being spun into as delicate a yarn as ever was produced from the very best Sea-island cotton. It possesses a lustre far exceeding that of cotton, greatly in excess of that of native Indian "grass cloth." Mr. Gray's process is practicable on any scale, and is applicable to a great many fibrous plants besides China-grass. It has already been applied, experimentally, with the utmost success, to jute, hemp, New Zealand flax, and various other plants. The public prints show that Lord Mayo has directed much attention to this fibre which is said to bring prices of £60 to £120 a ton. But such prices could only be obtainable for well prepared fibre of the finest quality. It is said to be procurable at Ningpo at £20 the ton. Since Drs. Roxburgh and Marsden's times, Dr. Wallich, Sir W. Hooker, Sir G. Staunton, Mr. Ewer of B[illegible]oolen, Dr. Taylor, Dr. F. B. Hamilton, Major Jenkins, Captain Dalton, Major Hannay, Dr. Royle, Dr. McGowan of Ningpo, and Dr. Falconer, have paid much attention to it.—*Roxb.* iii. 590. *Royle Fib. Pl.* See Bœhmeria nivea. Fibres. Grass cloth.

CHINAKA. HIND. Brassica Griffithii; Malcolmia strigosa.

CHINA KANDA, a town in L. 81° 44′ E.

CHINAKARAM. SINGH. Alum.

CHINA KARINGUVA. TEL. Gardenia lucida, *R.* i. 707—*Ic.* 557.

CHIN-AMAM-PATCHA-ARISE. TAM. Euphorbia thymifolia, *Linn.*

CHINA MANDULA MARI. TEL. Vitis Linnæi, *Wall.*

CHINA MORALLI. TEL. Buchanania latifolia, *R.*

CHINA MATS. See Mats.

CHINA MUTTAMA. TEL. Sida alba, *R.* iii. 174.

CHINA MUTTAVAPULAGAM. TEL. Pavonia zeylanica, *R.* iii. 214.

CHINAN. HIND. Panicum miliaceum.

CHINA NARE. TEL. Eugenia salicifolia, R.

CHINA NAVULI. TEL. Niebuhria linifolia, *R.—W. and A.* 78; *Ic.* 174.

CHINANGI. TEL. Lagerstræmia parviflora, *Roxb.*

CHINAPATAM, in L. 12°39′ N. and 77° 13′ E., is a Mysore town S. W. of Birdi, or Bidadi, 2011 feet above the sea.

CHINAPATAN, the name given to Madras by all natives of the peninsula.

CHINAR HIND. Platanus orientalis.

CHINAR, in l. 34° 8′ N. and 74° 50′·3 E., in Kashmir, an island in the lake near Srinagger, the capital of Kashmir. At the Trigonometrical Signal, it is 5,209 feet above the sea.

CHINA RED WOOD. A Penang wood of a red colour. Only used for furniture.

CHINA ROOT. *Roxb.*

Kusb-sinie,	ARAB.	Smilax China,	LAT.
Sook china,	BENG.	Esquina,	PORT.
China-wortel,	DUT.	Rais china,	SP.
Squine	FR.	Cocolmeca,	,,
Esquine	,,	China alla,	SINGH.
China-wurzel,	GER.	Paringay-puttay,	TAM.
Chob-cheenee,	GUZ. HIND.		

This large tuberose knotty root of the Smilax China, is of a reddish white colour within and reddish brown without. It grows abundantly in China and everywhere in great abundance in Japan, although in Thunberg's time, the Japanese bought annually large quantities of it from the Chinese. At one time considerably employed in medicine in syphilitic cachexia.—*McCulloch. Faulkner. O'Shaughnessy Beng. Phar.*, p 279. *Ainslie Mater. Med.*, p. 10. *Thunberg Trav.* iii., p. 61.

CHINA ROSE. ENG. Hibiscus rosa-sinensis, *Linn.*

CHINARU. HIND. Armeniaca vulgaris, *Lam.* Apricot.

CHINA RUBRA. See Cinchona.

CHINA SPELTER. Tutenague.

CHINA WARE, or porcelain, once so extensively exported from China, is now almost confined to the commonest and cheapest descriptions of stoneware, by far the greatest portion of which goes to India. The patterns made by the Chinese seldom change, while the European manufacturers both consult and lead the taste and fancy of their customers; and it is owing to this, in some degree, that the demand for the Chinese finer ware has ceased, though the Mongols, Siamese, Hindus, and islanders in the Archipelago are still chiefly supplied from China. When the productions of the East were first carried round by the Cape of Good Hope, the porcelain of China bore an enormous price, and the profits of manufacturing it having been ascertained, the European nations began to make it, and soon out-rivaled the Chinese. China-ware is sold in China in sets, consisting of a table set of 270 species, at from 12 to 75 taels; a breakfast set of 20 pieces, at three taels; a long tea set of 101 pieces, at 11 to 13 taels; and a short tea set of 46 pieces, at from 5 to 6 taels. Flower-pots, vases, jars, fruit baskets, table ornaments, &c., are made of porcelain to any pattern by the Chinese. It is still sent to Bombay and other parts of India, and also to the United States.—*Compendium by Hon'ble Mr. Morrison.* See Ceramic manufactures.

CHINA VALASA, also Vadavalasa. TEL. Walsura ternata, *R.* ii. 389.

CHINA-WORTEL. DUT. China-wurzel. GER. China root.

CHINA-YELLOW ROSE. See Rosa.

CHINBROY ASPARAGUS. Asparagus sarmentosus.

CHINCAGLIO. IT. Hardware.

CHINCHA HIND. Tamarindus indica leaves.

CHINCHAR in Kangra, a kind of rock yielding iron sand.

CHINCHING GOLONG, a river of Java. See Karang Bollong.

CHINCHOLI, in l. 76° 21′ E., and l. 17° 24′ N.

CHINCHONA, a genus of plants, natives of South America, several species of which are of great value in medicine yielding "Bark" or Peruvian or Cinchona Bark, from which quinine is produced. The known species are C. boliviana; calisaya; condaminea; cordifolia; lancifolia; lucumæfolia; magnifolia; micrantha; nitida; oblongifolia; officinalis; pahudiana; peruviana; ovata; purpurea; succiruba and scrobiculata, ten of which have been introduced into India, and the introduction has been the most successful of all attempts previously made with exotics. Fortunately no long period is required before Cinchona trees become productive. It is not necessary that the plant should grow into a forest tree before it yields its bark. The "Quill Bark" stripped from saplings, just as cinnamon is prepared, is found to be rich in quinine. In about five years a plantation is likely to become productive. From the Ootacamund plantation, plants have been sent to Mahabaleshwur, Dharmsala and other parts of the Himalaya.

CHINCHOR, a town in the Dekkan, with a temple containing an idol named Kandoba.

CHIN-CHOU. CHIN. Gracillaria tenax.

CHINDGOOR, in L. 80° 25′ E., and L. 18° 28′. N.

CHINDI. HIND. Litsæa. *Sp.*

CHINDUGA. TEL. Acacia odoratissima, *Willd.* Mimosa odor, *R.* ii. 549.

CHINEAPOLLIAM, in L. 80° 7′ E., and L. 15° 0′ N.

CHINEPOOR, two towns in India, one in L. 78° 17′ E., and L. 23° 6′ N., the other in L. 74° 48′ E., and L. 31° 40′ N.

CHINESE ANISE, ENG. Star Anise.

CHINESE CINNAMON. Cinnamomum aromaticum. See Cassia.

CHINESE CASSIA. See Cassia bark.

CHINESE CHESNUT. See Castanea.

CHINESE DATES. Fruit of Ilex serrata. Diospyros kaki.

CHINESE FIR. See Evergreens.

CHINESE FLAX. See China grass. Rheea.

CHINESE OLIVE. See Olive.

CHINESE PINE. See Dryandra cordata.

CHINESE RHUBARB. See Rhubarb.

CHINESE TARTARY, also known as Little Bokhara, also as Eastern Turkistan, is a great depressed valley shut in by mountains of great height on three sides, and on the east are barren sands which merge imperceptibly into the Great Desert of Gobi. The Tian-Shan range separate it from Dzungaria, the Bolor range from Transoxiana, and the Kara Koram and Kuen Lun from India and Thibet on the south. The land is clayey near the base of the mountains, but sandy in the central tracts. Rain is rare and the air is of exceeding dryness, but the climate is temperate and healthy. It is well watered from the mountains, the waters converging towards the Ergol or Tarym. The country has gold, copper, salt, sulphur and the jade-stone. The southern line of the caravan route passes through it from Khamil to Aksu and Kashgar. From Aksu to Kokand is 800 miles. It was subject to China from the beginning of the Christian era, to the time of Changiz Khan. After the middle of the eighteenth century, Chinese power regained possession of it. Alti-Shahr, or the six cities, forms the western district, comprising Yarkand, Kashgar, Khotan, Aksu, Yanghisar and Oosh-Turfan, with territories subordinate to each. Eastern Turkestan is eminently mahomedan. Yarkand is the entrepot of trade between China and Bokhara. Khotan, from the time of C'tesias, has been celebrated for its mineral products, its jade and emeralds, its shawl, wool and flax. It was at one time the entrepot of a vast trade with Hindustan, and now imports largely furs, broad cloth, leather, and sugar. See India, p. 317, Kabul 435, Kaffir, Kunawar, Ladak.

CHINESE VARNISH TREE. See Dyes. Lacquer and Varnished ware of China.

CHINESE YAM. Dioscorea batatas.

CHIN-DEO, in Canara, means Jain images, and is supposed to be a corruption of Jain deo. See Jains.

CHINGANI, a name of the Kara-chi or Kara-tchi of Central Asia, supposed to be a gypsy race.

CHINGARI. Hind. A thug, a clan of Muttri thugs assuming to be mahomedans, and travelling as ostensible grain merchants. *Wilson.*

CHINGHAE or CHINHAE, in lat. 29° 57½′ N. long. 121° 43½′ E. is the maritime town of the river Yung or Ningpo. The city of Ningpo is about 10 miles from the river's harbour. Chinghae is a *heen* or city of the third class.—*Horsburgh.*

CHIN-GHAS. Beng. Panicum miliaceum.

CHINGIZ KHAN. See Chengiz Khan.

CHING-KEANG-FO, a town of China, battle of fought, 21st July 1842.

CHING LE. See Kwang-tung-chi.

CHINGLEPUT, a town in India in L. 80° 3′ E., and L. 12° 39′ N. It is the head town of a collectorate in the Madras Presidency, of the same name, formed out of a tract of land 120 miles long and 45 miles broad, given in A. D. 1763 to the E. I. Company as a jaghir by the nabob Mahomed Ali, Walajah. It is poor land irrigated from tanks, several of which, at Carangoly, Chembrumbaukum, the Red Hills and Chingleput are very large. It has the Palar and Adyar rivers, and its chief towns are Madras, Poonamallee, St. Thomas' Mount, Pulicat, Chingleput and Sadras. The pagodas of Mahabalipuram are in this district. Population about 583,462.

CHINGO PANMARI. The Tibetan name of Mount Everest.

CHINGORIER. One of the sects of the Thug clans.

CHING-TU. See Jews.

CHINCHAE, capture of, 10th October 1841.

CHINI. Hind., i. e., China or relating to China, hence Chini, Sugar-candy, first brought from China, but is also white moist sugar. Rewand Chini, Hind, is Verbascum thapsus, Eremostachys vicaryi and Rheum emodi. Chini-kam. Hind. Porcelain. Earthenware.

CHIN-INDIA. A name proposed for the countries beyond the Ganges.

CHINGERITT. A Penang wood, of a brown colour, specific gravity 2·165. A small tree ; used for furniture.

CHINKA. Hind. Eragrostis, *Sp.*

CHINKAH, Hind. A traversing basket bridge.—*Wilson.*

CHINKARA. Hind. of European and Native sportsmen in India, is the "Gazella dorcas." It is met generally on the plains and low open hills of India. In many parts it especially affects the nullahs and stony eminences which diversify the plain. The horns of the male are annulated, and twist back with a slight but graceful curve. They are ten or twelve inches in length. The doe has horns also, but much smaller in every way than those of the buck. They are not annulated, and are sometimes strangely distorted, without any approach to regularity of appearance. They roam in herds of six or eight, but they are more abundant in the province of Cutch than elsewhere, and the antelope is not seen there though, across the gulf, on the coast of Kattiawar, they abound.

CHIN-KI-TUT. Hind. Morus sinensis.

CHINNA. Tel. Small.

CHINNA BOTUKU. Tel. Cordia angustifolia. *R.* i. 595.

CHINNA-GOLAKONDA, in L. 78° 28′ E., and L. 17° 11′ N.

CHINNA JAMMI. Tel. Acacia cineraria, *Willd,* not uncommon in the neighbourhood of Madras.

CHINNA KALA BANDA. Tel. Aloe litoralis, *Kœnig.* A. Indica, *Royle.* A. perfoliatata, *Roxb.* ii. 167.

CHINNA KALINGA, Tel. Dillenia pentagyna, *R.* ii. 625.

CHINNA-KALIVA PANDOO. Tel. Carissa spinarum.

CHINNA KIMMEDY, a district in the north eastern part of the Madras Presidency, inhabited by Khond races, who, until lately, practised human sacrifices, the victims being styled Meriah. The rite is supposed to be now suppressed.

CHINNA MASTAKA, in hindu idolatry, is a form of Parvati as Kali, and, possibly, is the *sacti* of Siva, in the form of Kapali. She is described as a naked woman with a necklace of skulls. Her head is almost severed from her body, and her blood is spouting into her mouth. In two of her hands she holds a sword and a skull. In a note on this subject, in Mr. Ward's work, it is stated that this goddess was so insatiate of blood, that not being able at one time to obtain enough of that of giants, she cut her own throat to supply herself therewith.—Ward derives the name from Chinna, cut off, and mastaka, a head. *Cole. Myth. Hind. p.* 94. See Kerari.

CHINNAMMA, Chinna navaru. See Hindu.

CHINNA NIDRA KANTI. Tel. Desmanthus triquetrus. *Willd.*

CHINNA RANABHERI. Tel. Anisomeles Malabarica, *R.* Br.

CHINNA RANTU. Tel. Rhaphidospora glabra, *Nees.*

CHINNA SALEM, in long. 78° 58′ E. and lat. 11° 42′ N. Chinna Takoor, in L. 78° 22′ E. and L. 15° 44′ N. Chinnaunee or Chundunee, in L. 75° 40′ E. and 33° 11′ N. Chinna upolum, in L. 82° 56′ E. and L. 17° 21′ N. Chinnaveram, in L. 77° 44′ E. and L. 17° 5′ N.

CHINNERETH, also Gennesareth, also Tiberias, also Galilee, also Bahr ul Tibariah, a sea or lake formed by the river Jordan. It has many fish. Its surface is upwards of 300 feet below the Mediterranean, and it is enclosed by steep hills 300 to 1,000 feet high. It is 12 miles long and 6 broad.

CHINNI AKU. Tel. Acalypha betulina, Retz.

CHINNI CHETTU. Tel. Celastrus emarginata, *Willd.—R.* i. 620.

CHINNIE MARUM. Chini in Tamil, Kasawha in Malayala. This is a tree which grows to about eighteen inches in diameter and twelve feet long; it is heavy and close grained; it produces a small berry much like pepper, which, as well as the wood, is not of much use.—*Edye, M. and C.*

CHINWA. Hind. Panicum miliaceum.

CHINNY. Tam.? A Travancore wood, of a rather dark colour, specific gravity 0·515. From 8 to 16 feet in circumference; used for building canoes.—*Col. Frith.*

CHINO. It. Kino.

CHINSAN, or Golden Island, is in the middle of the Yang-tse-kiang, or great river of China, where the width is near three miles. It is the property of the emperor. It is interspersed with pleasure-houses and gardens, and contains a large monastery of priests, by whom the island is almost entirely inhabited. A vast variety of vessels in form and size are constantly moving about on this large river. —*Macartney's Embassy. Vol.* I., *p.* 27.

CHINSURAH, a neat town in the neighbourhood of Calcutta. The Dutch established themselves there in A. D. 1675, but they came in contact with the British on the field of Bidera four miles to the west, and were defeated; and finally, about 1815, they received Java for it.

CHINSURAH CHEROOTS. See Cheroots.

CHINT. Guz. Hind. Pers. Chintz.

CHINTA CHETTU. Tel. Tamarindus Indica, *L.*

CHINTAMNI, a mythical gem of the hindus, supposed to yield to its possessor all that he may desire.

CHINKAS—? See Cyperaceæ.

CHINTZ. Eng.

Sits	Dut.	Kalamkari	Malay.
Chintz	Eng.	Chit	„
Indiennes	Fr.	Chitas	Port.
Zitze	Ger.	Zaraza	Sp.
Chint	Guz. Hind. Pers.	Chites	„
Indiane	It.	Simai gudde	Tam.
		„ gudda	Tel.

Fast-printed calicos, of different colours, impressed upon a white, or light coloured ground. The word is of Indian origin and is from Chinta, a spot, or spotted. In the Madras Presidency, the principal sites of this manufacture are the towns of Masulipatam, Arnee and Sydapet. Those of Masulipatam are called "Kalan kauree," literally "firm colour:" they are of various hues. Each piece is 2 cubits in breadth, and 12 in length, priced at from 4 to 12 rupees each; and it is used for under garments by hindoo women. Those of Arnee, and Sydapet are ordinary, and 8 by 2 cubits sold at 1 to 3 Rupees each; they are used for pillow covers and other purposes, as well as the under-garments of humbler native women. At the Madras Exhibition of 1855, the chintzes from Masulipatam were of great variety as to color, size, quality of the dye and price: the whole collection was interesting, very well colored, and the dyes good; there was a palempore by Aga Ismail of Masulipatam, embroidered in gold and of a chaste and elegant pattern. Some of the chintzes of Masulipatam and of the south of India are as beautiful in design as they are chaste and elegant in colour.—*McCulloch, Mr. Faulkner, M. E. J. R. Dr. Watson.*

CHIN ZOOAY. Burm.? Meaning Elephant's-teeth. A wood of maximum girth, 1½ to 2 cubits, maximum length 10 feet, abundant on the hills inland, always on rocky barren ground, in mountainous or hill districts all over the Tenasserim provinces. When seasoned, sinks in water. This wood is believed by Captain Dance to be the hardest and strongest known in these latitudes, perhaps anywhere in the world. It is, however, only procurable in such rocky spots as no other tree will grow in, so must be sent for on purpose. It cuts up, as yendaik and other hard woods do, with huge cracks through it; in fact, this is the most wasteful of all known valuable timber in this respect and the original scantling is but small, so that it is not available for general purposes, but is valuable for the edges of Phillester planes, for spoke shaves, and for purposes in which much scantling is not required.—*Captain Dance.*

CHIOCOCCA JAVANICA, the JavaSnowberry, a parasitical shrub, is found on the mountains of Java upon trees.—*Eng. Cyc. p.* 1031.

CHIODI, also Chiovi, also Aguti. IT. Nails.

CHIONANTHUS ALBIDIFLORA. THW. Taccada gas. SINGH. A small tree of Ceylon, growing at from 1,000 to 3,000 feet.—*Thw.*

CHIONANTHUS LEPROCARPA. THW. A small tree growing at 3,000 to 4,000 feet in the Central province of Ceylon.—*Thw.*

CHIPAL. HIND. Ulmus erosa.

CHIPKIAN. HIND. Melica. SP.

CHIPPA BORA GADDI. TEL. Panicum corymbosum, *R.* i. 292.

CHIPPA GADDI. TEL. Andropogon Schœnanthus, *L.*—*R.* i. 274.

CHIPPI, a beggar's bowl made of the shell of the sea or double cocoanut, Laodicea Seychellarum.

CHIPULU GADDI. TEL. Aristida setacea, *Retz.* Chætaria set, *Beauv.* The word means broom or sweeping-grass, from the use to which it is applied.

CHIPURA TIGE. TEL. Cocculus villosus, *D.C.*

CHIR, in Chamba, Armeniaca vulgaris, apricot, Prunus Armeniaca.

CHIR, in the N. W. Himalaya, Pinus excelsa, P. longifolia; dar chir, P. excelsa, drab chir, P. longifolia.

CHIR. HIND. Gum.

CHIR. Phasianus Wallichii. A kind of pheasant.

CHIRA of the Periplus, the modern Coimbatore. An ancient kingdom that seems to have been formed out of the Pandya dominions. The Chira seem to have possessed also Kerala, and to have sent an embassy to the Romans, to whom the Chera prince was known as O Kerobothras.

CHIRETTA. Creyat Root.

Kussub-uz-zerireh,	AR.
Kalapnath,	BENG.
Kala-megh,	,,
Maha tita,	,,
Toa-kha-kyi	BURM.
Kiriat	CAN.
Kreat	DUK.
Choraita, Chiraita, Chiretta,	ENG.
Createe	FR.
Creyatta	GUZ.
Chiretta	HIND.
Creyatta	,,
Kriatt	,,
Kairata	SANS.
Atadi	SINGH.
Sherait-kuchi, also Kiriat	TAM.
Nela vemu	TEL.

Chiretta, or Creat or Chirayta, for all three pronunciations are in use, is the name given to several plants, all of them closely allied in medicinal properties to gentian, for which several of them are perfect substitutes. Like gentian, Chiretta promotes digestion, improves the appetite, and gives a tone to the system, without producing much stimulant effect, or causing constipation. It contains a resin and yellow bitter matter, on which the activity of the plant depends. Its use is admissible in all inflammatory states of the intestinal canal, and in febrile diseases. The chiretta of the bazars is the produce of the several following plants:—

Adenema hyssopifolia. HIND. Chota Chirayta, is common in various parts of Southern India, is very bitter, also somewhat laxative, and much used by the natives as a stomachic.

Agathotes chirayta (Don.); Ophelia chirayta, (Grisebach); Gentiana chirayta, (Fleming); BENG. and HIND. *Chirata*; grows in Nepaul, the north of India, and Morung Hills. All parts of the plant are extremely bitter, and are identical in composition with the common gentian. It is highly esteemed as a tonic and febrifuge all over India. It is a common and abundant plant in the bazar, supplied chiefly by the lower ranges of the Himalaya.

Andrographis paniculata (Justicia paniculata, Roxb.) BENG. Kalamegh, HIND. Kalupnath or Maha tita, is the genuine or original chiretta.

Chironia centauroides of Roxburgh (Erythræa Roxburghii (Don), is another and powerfully bitter plant found in India.

Cicendia hyssopifolia (Syn. Exacum hyssopifolia): common in various parts of the East Indies; the whole plant is bitter and somewhat laxative; is used by the natives as a stomachic.

Exacum bicolor, grows rare on the Neilgherries, below Kotagherry, and abundant a mile below Nedawuttum, where it flowers during the autumnal months. This species enamels the swards of the Western Ghauts with its beautiful blossoms, has the same bitter stomachic principles for which the Gentiana lutea is so much employed, and it is believed, may be used with advantage in lieu of gentian for medicinal purposes. The infusion is a mild pure bitter. It is known in Mangalore as country creat, and sold there at 1 anna 6 pie per lb.

Exacum tetragona, is another species of this genus, and is called *Ooda chiretta*, or purple chiretta.

Halenia.

Ophelia angustifolia (Don.), O. Swertia

(Royle), is called *pukarree chiretta*, and is substituted for the true chiretta.

Ophelia elegans, (Wight), grows plentifully in several parts of the Madras Presidency, is considered febrifuge by the native physicians, who prefer it to the Himalayan chiretta. It grows plentifully in the Jeypoor zemindary of Vizagapatam, and is annually exported, as *Silaras* or *Selajit*, to the value of about Rupees 2,500. The infusion of O. elegans has a powerful bitterness.

Ophelia alata and *Ophelia chiretta* seem to be used similarly; they grow in the Himalaya.

Villarsia indica; *V. aristata*; *and V. nymphœoides*, occur in every part of India.

Chiretta may be regarded as a type of the simple bitters, so many of which have been employed in Europe as febrifuges. For such purposes it is employed in India, and it will do whatever a simple bitter can in stopping intermittents. This is of course not very much, at least in the tropics, notwithstanding the opinions of physicans of a past age, for instance Boerhaave, who had great faith in gentian. Chiretta is an extremely useful tonic, and of much service in convalescence from fever. It is one of the few articles of the Indian Materia Medica, which is in every respect an adequate substitute for the corresponding European article, and there is no occasion for any gentian being imported into India, although Twining, with the fondness for particular remedies which is engendered by exclusive modes of practice, imagined that extract of chiretta had not the peculiar virtues which he attributed to gentian in dysentery. Chiretta is a useful vehicle for other remedies, and not long ago infusion of chiretta, with powder of gall-nuts, was tried as a fever remedy in dispensary practice, but with indifferent success. Probably chiretta by itself would have been quite as efficacious. Chiretta is given in infusion and tincture like gentian. It is the basis of the celebrated drogue amere, a compound of mastic; frankincense, resin, myrrh, aloes, and creat root, steeped in brandy for a month, and the tincture strained and bottled. Chiretta is met with in a dried state, tied up in bundles, with its long slender stems of a brownish colour, having the roots attached, and which have been taken up when the plant was in flower. The whole plant is bitter, being universally employed throughout India as gentian is in Europe. It is procurable in all native druggist shops.—(*Faulkner*). The extracts of chiretta agree in being valuable bitter tonics. Both these and gentian contain a peculiar principle termed the gentisic acid. The dose is ten to thirty grains twice or three times daily, usually prescribed with sarsaparilla hemidesmus or iron.—(*Beng. Phar*, *p.* 290). The wine of chiretta is cordial, bitter and tonic in a dose of two fluid drachms. A compound tincture of kreat is prepared by kreat root six ounces, myrrh and aloes, each one ounce, French brandy two pints, macerate for three days and strain. This preparation is equivalent to the celebrated "drogue amere." Its effects are tonic, stimulant, and gently aperient. It is a valuable preparation in the treatment of several forms of dyspepsia and torpidity of the alimentary canal in a dose of one fluid drachm to half an ounce.—*Faulkner Beng. Phar.*, *p.* 290, 429. *On the Varieties of Chiretta used in India, by Hugh Cleghorn, M. D., Madras Medical Service. Dr. J. L. Stewart.*

CHIRAGADAM. Tel. Batatas edulis, *Ch.*

CHIRAGH KA TEL. Hind. Lamp Oil, in Southern India, oil of large seeded Ricinus communis; in N. India, poppy and other oils are used for lamps.

CHIRAKURA. Tel. Amarantus polygonoides.

CHIRA MELLA. Hind. Phyllanthus longifolius.

CHIRAN. Hind. Prunus Armeniaca.

CHIRA SAMUDRA. Sans. In hinduism the sea of milk, on which the serpent Sesha rested, when Vishnu was reposing. See Balajee, Tripati.

CHIRANJI. Tel. Rubia? A dyeing root of Rubia cordifolia in the bazars of the Northern Circars.

CHIRATAKA. Sans. Agathotes chirayta.

CHIRATALA BODA. Tel. Dalbergia scandens, *R.* iii. 232.

CHIRAULI. Hind. Buchanania latifolia.

CHIRAUNDA. Hind. Adelia serrata.

CHIRAYIT GENTIAN. Anglo-Hind. Agathotes chirayta. See Chiretta.

CHIRCHIRA. Beng. Hind. Achyranthes aspera. *Linn. Roxb.*

CHIRCHITTA. Hind. Lycium Europæum, also Achyranthes aspera.

CHIRI. Tel. A term applied to several woods resembling others as Chiri Teku. Tel. Bastard teak, applied to Erythrina Indica and Wormia bracteata.

Chiri alli. Tel. Villarsia cristata, *Spreng.*

Chiri annem. Tel. Briedelia scandens, *Willd.*

Chiri benda. Tel. Sida cordifolia, *L.*

Chiri bikki. Tel. Gardenia gummifera, *L.*

Chiri chatarasi. Tel. Dentella repens, *Forst.*

Chiri dudduga. Tel. Alphonsea lutea, *H. F. & T.*

Chiri galigeru. Tel. Trianthema, *L.*

Chiri giligichcha. Tel. Crotolaria laburnifolia, *L.*

Chiri gummudu. Batatas paniculata, *Ch.*?

Chiri jeguru. Tel. Cluytia, *L. sp.*

Chiriki. Sans. Fruit of Buchanania latifolia.

Chiri koti goru. Tel. Pterolobium lacerans, *R. Br.*

Chiri malla. Tel. Jasminum angustifolium, *Vahl.*

Chiri manu. Tel. Conocarpus latifolia, *R.* ii, 442.

Chiri nanupala. Tel. Euphorbia, *L.*

CHIRIA. Hind. A bird; hence Chiriya-Mar, a bird catcher, a low caste.

CHIRINDI. Hind. Acer cultratum.

CHIRI PALLERU. Tel. Tribulus lanuginosus, *L.*

CHIRI PIAZ. Hind. Allium rubellum.

CHIRI SANAGALU. Tel. Ervum, *L. sp.*?

CHIRITA SINENSIS. The "manneenchung" of the Chinese, a dwarf species of *Lycopodium*, highly prized by that people.—*Fortune's Tea Districts, p.* 8.

CHIRI TEKA. Tel. Clerodendron, *L. sp.*

CHIRI TUMMI. Tel. Leucas, *R. Br.*

CHIRI VANGA. Tel. Solanum melongena, *L.*, small variety.

CHIRI VERU. Tel. Oldenlandia umbellata, *L.*—*R* i. 421.

CHIRI ULAVA. Tel. Rhynchosia rufescens, *D.C.*

CHIRIYA-GHAS. Beng. Helopus annulatus.

CHIR-MITI. Hind. Abrus precatorius seeds.

CHIR-MUTTI. Hind. Leptropus cordifolia.

CHIR-NATH. Hind. Fir cones of Pinus longifolia, and P. gerardiana.

CHIRNDI. Hind. Litsæa sp., also Adelia serrata.

CHIRNDU, Eleodendron dichotomum.

CHIROLI, Hind. Prunus Armeniaca.

CHIRONECTES. See Keora.

CHIRONGIA GLABRA, Buch.

Muruculu pullum, Tam.

The fruit of this, Dr. Buchanan says, is eaten in Mysore, but Ainslie believed that it is not much esteemed.—*Ainslie.*

CHIRONGIA SAPIDA. Buch. Syn. of Buchanania latifolia.

CHIRONIA. This genus of plants is indigenous to the Cape of Good Hope; the flowers are rose colored, white, yellow and purple.—*Riddell.*

CHIRONIA CENTAUROIDES, Rox.

Erythræa Roxburghii, *Don.* | Nye, Hind.

This plant grows in several parts of India; its leaves and stalks are powerfully bitter, and are found in the bazars as one of the chirettas.—*O'Shaughnessy, p.* 460.

CHIROR. Hind. Mahonia Nepalensis.

CHIRRI KURA. Tel. Amarantus polygonoides, *R.* iii. 602.

CHIRRU. Hind. Xanthium strumarium.

CHIRU DEKHU. Tam. Clerodendron serratum, *Blume.*

CHIRUGU CHETTU. Tel. Caryota urens, *L.*

CHIRUNGE, a red dye from Chirongia sapida. See Dyes.

CHIRUN-JIVA. Sans. From Chira, a long period, and jiva, life.

CHIRU NUTI. Beng. Amarantus polygonoides, *Roxb.* Oxystelma esculentum, *R. Br.*

CHIRUTA-ITA. Tel. Phœnix farinifera, *Roxb.*

CHIRWI, in the Multan division and Derajat, means the best kind of split and dried dates of the Phœnix dactylifera; the word seems from Chirna, Hind, to split.

CHISEL-HANDLE TREE, a species of Dalbergia of Tenasserim.

CHISHOLM, Mrs. Caroline, daughter of Mr. William Jones of Wootton in Northamptonshire, was born about 1810. She was married to Captain Alexander Chisholm, of the Madras army. On her arrival in Madras, she was the means of establishing an industrial home or school; afterwards, while residing at Sydney, she devoted herself to protect the young women emigrants, and in all her efforts she was warmly seconded by the local press. She established a store, and constituted herself a mother to the friendless women, making frequent journeys into the interior of the country to form committees, and placing the young people to service. She returned to England to become the champion of the cause of emigration, where she aided many to emigrate, and finally established the Family Colonization Loan Society, and sent out ship after ship with emigrants, cared for in a manner never before attained; she returned to Sydney in 1854, where she was received with great honours.

CHIT, in the doctrines of the Sri Sampradaya sect of hindus, means the "spirit" of Vishnu; this, with "achit" or matter and ishwara or god, or ruler, being the three predicates of the universe. In their views, Vishnu is Brahma, before all and creator of all. See Sri-Sampradaya.

CHITA. Hind. Mahr. A native name for the several leopards and panthers or spotted ca[illegible] of India. The word is also written Chee[illegible] There are several, the panther, leopard, bla[illegible] cheetah and hunting cheetah. The hunting Chita, or Felis jubata, is carried near to the herd of deer in a cart, from which it is slipped. It first walks towards the antelope, with its tail straightened and slightly raised, the hackle on its shoulder erect, its head depressed, and its eye intently fixed on its prey, which does not as yet perceive him. As the antelope moves, the Chita does the same, first trotting, then cantering after it, and when the prey starts off, the Chita makes a rush, to which the speed of a race-horse is for the moment much inferior. The Chitas that bound or spring on their game are not so much esteemed as those which run it fairly down. The Chita, if it miss its first aim, stops and gives up the chase, walks about for a few minutes in great rage, after which it again submits to its keepers. It always singles out the biggest buck of the herd. Some leap on the neck, another holds the deer by the throat till the animal is stifled, keeping the hind feet on the horns to secure itself from injury. See Cheeta.

CHITA. Beng. Hind. Plumbago rosea. P. Zeylanica, *Lin.*

CHITA. Hind Oryza sativa.

CHITA BAGNU. Hind. Populus alba.

CHITA BANSA. Hind. Ipomœa turpethum.

CHITA-RATHI. Maleal. Alpinia racemosa.

CHIT-AMINDALU NUNA. Tel. Oil of small-seeded Ricinus communis, castor oil plant, used medicinally.

CHITAS. Port. Chintz.

CHITA SINJI. Hind. Melilotus leucantha.

CHITAWALA. Hind. Senecio angulosus.

CHITANA. Hind. Pyrus Kumaonensis.

CHIT BATTO. Hind. Trifolium pratense.

CHITE ANKALU. Tel. Wrightia tinctoria, *R. Br.*

CHITES, also ZARAZA. Sp. Chintz.

CHITIJARI. Hind. Aconitum heterophyllum.

CHITIKESWARUM. H. Poinciana elata, *L.*

CHITIMIRK. Hind, also Chiti-phul, Heliotropum brevifolium.

CHITI-MORT. Hind. Desmodium argenteum.

CHITI MUTI. Tel. Sida acuta, *Burm.*

CHITI SIRIN. Hind. Cedrela toona; C. serrata.

CHITKA. Beng. Bauhinia acuminata.

CHITKABRA. Hind. Uraria chetkubra.

CHITLINTA KURA. Tel. Marsilea Coromandelina, *N. L. Burm.* M. minuta, *Heyne*, 54, also Riedlea corchorifolia.

CHITLONG, in l. 85° 3′ E., and l. 27° 41′ N.

CHITNAHULLY, in l. 76° 5′ E., and l. 13° 10′ N.

CHITORE, also written Chittore and Chetore, one of the chief towns of Mewar. After the destruction of the Balhara monarchy of Saurashtra, the ruling race seem to have sojourned for two-hundred years in the Bhander desert. Bappa then conquered Chitore in A. D. 727, and founded a new dynasty. The hereditary title was changed from Gehlote to Aditya. In 1828 Jowan (Javan) Singh, the only survivor of the race of Bappa, was on the throne.

CHITOOA-BORA. Beng. Polypodium glabrum.

CHITPATRA. Hind. of Kaghan, Marlea begonifolia.

CHITPEKALARA, in Arakan, slaves who had been taken in battle.—*Wilson.*

CHITRA. Hind. Staphylea emodi; Drosera muscipula.—Lal Chitra, is Plumbago Zeylanica.

CHITRA, also written Chaitra, and Chaitram. The first month of the Tamil solar year, answering to the hindu Vaisac'ha, when the sun is in the sign Mesha. But this name is that of the last month of the hindu solar year, used everywhere (excepting in the Tamil country) when the sun is in the sign Min, answering to the Tamil Pungoni. Lastly, Chaitra is the name of the 1st month of the luni-solar year which begins on the new moon preceding the sun's entrance in the sign Mesha. This variety of significations of terms so nearly resembling each other requires the greatest attention, when adverting to dates, and reading books written in different countries.—*Warren.*

CHITRA. Beng. Cucumis Madraspatanus; also Hind. Berberis lycium, B. Asiatica or B. aristata.

CHITRAGUPTA, pronounced Chitrgoputr, the registrar of Yama, the recorder of the dead.—*Hind. Theat, Vol.* II., *p.* 165.

CHITRA INDICA. One of the Chelonia or tortoises. It inhabits India. See Chelonia.

CHITRA JAVANIKA, a painted cloth, a screen or veil, suspended in a temple before the adytum; according to Malanka, it is rather arras or taspestry, he describes it as cloth covering the walls of a temple.—*Hind. Theat. Vol.* II., *p*, 74.

CHITRA-KUTA, a celebrated hill in Bundlecund south of the Jumna. It was here that Valmiki resided.

CHITRAL or little Kashgar, is beyond the Belut Tagh mountain. See Eastern Turkestan. Bucharia.

CHITRA-MUL. Hind. Thalictrum foliolosum.

CHITRA-MULAM. (*Tella, Nalla, and*

Erra, white, black and red.) A generic name for species of plumbago.

CHITRA-RAT'HAN. The chief musician of Indra, who rides in a painted car; on one occasion it was burned by Arjun, the confidential friend and agent of Krishna or the sun.

CHITRA VANI. Sans. Plumbago Europæa.

CHITRI CHIRUYA. Beng. Urochloa panicoides.

CHITRIKA. Tel. Limonia pentagyna, *R* ii. 382.

CHITRIYA, in L. 86° 53′ E., and L. 27° 31′ N.

CHITROCHUTTEE, a town in Huzareebagh district.

CHITRU-GOOPTA. Sans. From chitru, to write, and goopta, hidden, seemingly the name of Chitragoputr, the secretary of Yama.

CHITRU-KOOTU. Sans. From chitra, speckled, and koota, the peak of a hill or mountain.

CHITTA-DUDAGA. Guatteria cerasoides, *Dun.*

CHITTA-AMADUM. Tel. Castor Oil.

CHITTABUTE, of Murree, Abelia triflora, also Buddleia crispa.

CHITTAGONG, also called Islamabad, in L. 22° 20′ 5. N., L. 91° 44′. 1 E, is a town 7 miles from the mouth of the river of the same name. Flagstaff hill is 151 feet above the sea. It is a large town of mahomedans and of Mugs, a Burmese tribe, who inhabit many parts of the Malay peninsula and the coast to the northward of it. In the time of James II the E. I. Company, in 1690, obtained the king's permission to send Admiral Nicholson with 12 ships of war, 200 pieces of cannon, and 600 men, to seize and fortify Chittagong and establish a kingdom; but this proved a failure, and fresh troops were sent out under Captain Heath, who burned down Balasore and proceeded to Chittagong. But finding this too strong, he sailed to Madras, which, with Bombay, were the sole possessions remaining to the English. But at this time, Aurungzebe accepted the terms of peace which the English offered, and allowed them to return to trade. The town stands on the north shore of an extensive delta, formed by rivers which issue from the lofty mountains separating this district from Burmah, rising 4,000 to 8,000 feet; they are forest-clad, and inhabited by turbulent races, conterminous with the Kuki of the Cachar and Tipperah forests, if indeed they be not the same people. The mountains abound with the splendid timber-trees of the Cachar forests, but, like these, are said to want teak, sal and sisso; they have, besides many others, magnificent gurjur trees (*Dipterocarpi*), the monarchs of the forests of these coasts. Chittagong manufactures inferior fabrics of strong texture. An inferior sort of isinglass is prepared and sold to Chinese traders. (*Dr. Taylor.*) The natives are excellent ship-builders and active traders, and export much rice and timber to Madras and Calcutta. The town is large and beautifully situated, interspersed with trees and tanks; the hills resemble those of Silhet, and are covered with a similar vegetation: on these the European houses are built. The climate is very healthy. Arracan, only 200 miles further south, is extremely unhealthy, and has many mangrove swamps. To the south of Chittagong undulating dunes stretch along the coast, covered with low bushes, of which a red-flowered *Melastoma* is most prevalent, and is considered a species of *Rhododendron* by many of the residents. But in addition to Melastoma, there occur the Jasmine, Calamus, Ægle marmelos, Adelia, Memecylon, Ixora, Linostoma, Congea, Climbing Cæsalpinia, and many other plants, and along their bases large trees of Amoora, Gaurea, figs, Mesua, and Micromelon.—*Hooker Him. Jour. Vol.* II. *page* 345, 347. The Chittagong wood (*Chickrassia tabularis*) is more used at Madras in the making of furniture than other woods. It is light, cheap and durable. Wild coffee grows abundantly in the Chittagong hills. Cultivated coffee is of excellent quality. The hill-tribes of Chittagong have been pushed up from Arakan. They call themselves by two names of pure Arakan origin—the Kyoung-tha, or sons of the river, and the Toung-tha, or sons of the hills. The latter, to which the Losshai belong, are the more savage and independent, as their name would lead us to believe. The former have a written language and even possess several copies of the *Rajah wong*, or History of the Kings of Arakan. All are Mongolian in physique, and are probably of Burmese origin. "They have an honest bright look, with frank and merry smile; and their look is a faithful index of their mental characteristics." They live in bamboo houses raised above the malaria of the ground. They practice *joom, cheena, or Kumari* cultivation, burning down the jungle to prepare the soil for mixed seed scattered broad-cast, and moving off to a new site next season. And they have a mild form of debtor slavery, which Captain Lewin thinks we have too suddenly interfered with, so that the hillmen fall victims to the usurer. Among the independent tribes beyond the British border, prisoners of war are sold like cattle. Their wives are procured, while raids are also caused, by the usage of "wehrgeld," which they call "goung bpo" or the price of a head. When a villager dies, his friends charge the village which he may have last visited with his death, and demand a price for his life. Polyandry, however, does not seem to exist among these tribes, though the women are so overworked and thus rendered so liable to disease that it might have been expected. Raids for women seem to keep up the necessary supply. Captain Lewin, in his Report, draws many a charming picture of rural courtship. As among almost all the non-Aryan tribes, chastity is enforced only after marriage. All the unmarried lads sleep in one house in the village under the care of a "goung" or head man. The merry-makings and customs which are connected with this "bachelor's hall," as Colonel Dalton calls it, are the same as in the Kol and Ghond countries. In the hills marriages are unions of affection, not of convenience or interest. Girls marry at 16, lads at 19. The most favourite offerings to a sweet-heart is a flower, and the lover will often climb the hills before dawn to procure the white or orange blossom of some rare orchid for the loved one's hair. It may be mentioned, in passing, that the hair, being neither cut nor washed, but increased by a *chignon*, is indescribably filthy, and that one of the most curious legends of the people relates to the introduction of the louse by Bengalees. The girls know how to make modest advances. One of Captain Lewin's police sought a week's leave of absence on this ground—"A young maiden of such a village has sent me flowers and *birnee* rice twice as a token, and if I wait any longer they will say I am no man." The language of flowers is well known among the Kyoung-tha. A leaf of pawn, with betel and sweet spices inside, accompanied by a certain flower, means "I love you." If much spice is put inside the leaf, and one corner turned in a peculiar way, it signifies "come." The leaf being touched with turmeric means "I cannot come." A small piece of charcoal inside the leaf is "Go, I have done with you." The love songs are as pure as they are pretty, and no improper ditties are allowed in the hearing of the village maidens. As the lads and lasses work in a crowd, at harvest times, they respond in chorus, or when the leader has finished, the whole party break out into the *hoia* or hill call, like the "jodel" of Switzerland, and the cry is taken up from hill to hill till it dies away in the distant valleys. In their mode of kissing, instead of pressing lip to lip, they apply the mouth and nose to the cheek, and give a strong inhalation. They do not say, "Give me a kiss;" but, "Smell me."

The religion of these tribes is a mixture of Buddhism and nature-worship. Captain Lewin describes a festival at the Mahamunnee temple in Arakan. The bamboo is adored by some as the impersonation of the spirit of the forest. But wherever, as in the case of the Chukma, the tribes come into contact with the Bengalee, they show a tendency to gravitate towards hindooism, the caste of which would soon kill the joyousness and check the freedom of their life. The Khumia and Kuki tribes occupy the hills of Sylhet, Tipperah, and Chittagong; the Kuki at the tops of the hills and the Khumia on the skirts. The Kuki are the ruder or more pagan race, though also tinctured with hinduism. They term their chief deity Khojein Putiang, to whom they sacrifice a Gyal; and to an inferior deity named Shem Saq, a rude block of wood put up in every quarter of a village, a goat is offered, and they place before it the heads of the slain in battle, or the heads of animals killed in the chase. The Kuki say that they and the Mug are the offspring of the same progenitor.

CHITTAGONG FIBRE. See Aroosha.

CHITTAGONG WOOD. ENG. Chickrassia tabularis.

CHITTAH. HIND. A note, a letter.

CHITTAK. HIND. An Indian weight equal to 900 grains.

CHITTAL. HIND. The spotted deer.

CHITTA LINNY. TAM.? A Travancore wood, of a red colour, specific gravity 0·847, 1 to 1½ feet in circumference; used for furniture.—*Col. Frith.*

CHITTAMANAK YENNAI. TAM. Castor Oil.

CHITTAMATTA. TEL. Gardenia gummifera, *L.*—*R.* i. 709.

CHITTAMUDAPU CHETTU. TEL. Ricinus communis, *L.* The small variety, from the seeds of which only the medicinal castor oil is expressed.

CHITTA-RATTA. MAL. Alpinia galanga.

CHITTAROHI, in Northern India, sand with salt efflorescence.

CHITTA TUMIKI. TEL. Diospyros tomentosa, *R.* ii. 532

CHITTEDURU. Vanda Roxburghii, *R. Br*,

CHITTEL DROOG. A hill fortress in Mysore, in L. 76° 40′ E., and L. 14° 14′ N. It has been held at times by the East India Company's soldiers. A mutiny occurred here on the 6th August 1809, in which the East India Company's officers induced the native soldiers to join, but they were attacked and defeated by detachments of the British army.

CHITTENTA KURA. Riedleia corchorifolia, *D. C.*

CHITT'HI. Hind. A note, a letter, an order or demand. Hence, Chit-navis, Hind, a note writer.—*Elliot.*

CHITTI ANKUDU. Tel. Wrightea tinctoria, *R. Br.*

CHITTI BENDA. Tel. Pavonia odorata, *Willd.*

CHITTI GARA. Tel. Capparis brevispina, *D. C.*

CHITTI FIBRE. See Jetee.

CHITTI PAPAR. Tel. Citrullus colocynthis, *Schrad.*

CHITTI or CHETTI, Plural, Chettiar, the traders and shop-keepers of Madras. Many of them are of small stature, but they are fair coloured. They are intelligent and successful business men, and a few have lately entered into commercial transactions to distant countries. Their wives dress with the Sari, but only of late years have any of them adopted the choli or boddice. A Sudra naidoo, the late Latchmenarsu Chettiar, member of the Legislative Council of Madras, took this title. None of them have ever had any political relation with the native states.

CHITTIPHUL. Hind. Heliotropium brevifolium.

CHITTITA CHETTU. Tel. Phœnix farinifera, *R.* iii. 785.

CHITTOOR, a town in India in L. 72° 11′ E. and L. 13° 14′ N. It is in the North Arcot collectorate.

CHITTORE, a town in Rajputanah in the kingdom of Mewar. Its dynasty are rajput, and claim to be descended from Lob, the eldest son of Rama, of the Solar dynasty. They say that they were first ruling at Balabhipura, a city in the gulf of Cambay, but their capital was laid waste by a son of Nousherwan of Persia in A. D. 524. The Rajput queen escaped the general destruction and gave birth to a son named Goho, from whom the Rajahs of Oodeypur are descended. Goho established the kingdom of Edur and eight princes succeeded him on the throne. The race seem to have remained in the desert till the middle of the eighth century, but in A. D.— ? Bappa took Chittore. Shortly afterwards Bappa proceeded to Saurashtra and married the daughter of Esupgole, prince of the Island of Bunderdhiva. With his bride he conveyed to Chettore the statue of *Vyan-mata*, the tutelary goddess of her race, who still divides with Eklinga the devotion of the Gehlote princes. The temple in which he enshrined this islandic goddess yet stands on the summit of Cheetore, with many other monuments assigned by tradition to Bappa. Bappa is not a proper name, it signifies merely 'a child.' He is frequently styled Syeel, and in inscriptions, Syeel Adhes, 'the mountain lord.' The Mori prince, from whom Bappa took Cheetore, was of the Tak or Takshac race, of whom Nagnecha, Nagani Mata, was the mother, represented as half woman and half serpent; the sister of the mother of the Scythic race, according to their legends. Of the twenty-four Gehlote tribes, several issued from the founder. Bappa retired into Scythia and left his heirs to rule in India. Keneksen was the founder of the Balabhi empire, and Sumitra was the last of Rama's line. Many rites of the Rana of Mewar's house are decidedly Scythic. According to Sir H. Elliot when Mahomed bin Kasim, the general of Walid, overran Guzerat about A. D. 718, and advanced to Chittore, Bappa met and entirely defeated him, and after this Bappa was raised to the throne of Chittore, where his descendants still reign. After a long and prosperous reign, Bappa abdicated and departed to Khorassan. In the reign of Khoman his great grandson Mahmun, Governor of Chorassan, invaded Chittore, but was defeated and expelled by Khuman after 24 engagements. Baber sustained a great defeat at Futehpore Sikri at the hands of the rajput Rama Singha, chief of Chittore, but in 1527, Baber led his army a second time against the Rajput prince, whom he overtook and completely broke his power. While ruled by Oody Singh, Chittore was invested by the emperor Akbar and captured after a prolonged siege; Oody Singh, at the approach of the imperial army, withdrew to the Aravalli hills, and left Jeymul, the rajput chief of Bednore, to defend his kingdom; Jeymul, with 8,000 of his men and women, perished on the occasion, and 74½ maunds of plunder were taken away by the army of Akbar. The capture of Chittore was regarded at the time by the rajput race as the greatest of misfortunes, and they have perpetuated the remembrance of it by impressing on all their correspondence the figures 74½. Oody Singh did not reoccupy Chittore, but founded Oodeypore, which he made his capital.—*Elliot Hist. of India. Tod's Rajasthan, Vol.* I. *p.* 594. See Balabhi; Hindoo; Mewar; Saurashtra.

CHITTOOR DULLA. Sans. Marsilea quadrifolia.

CHITTORE GUR, in L. 74° 47′ E. and L. 24° 55′ N.

CHITTURMUL. Duk. Plumbago rosea, also P. Zeylanica, *Linn.*

CHITTURPOOR, in L. 85° 40′ E. and L. 23° 38′ N.

CHITULIA, a genus of water-snakes of the order Hydridæ, of which C. mornata and C. fasciata inhabit the Indian Ocean. See Hydridæ, Reptilia.

CHITZ. Mahr. Tamarindus indicus.

CHIU. HIND. Rhododendron arboreum, also Euphorbia Royleana.

CHIUN, of the prophet Amos, v. 26, is supposed by Calmet to be Chivin or Siva. Chiun is supposed to be the Bal-peor.

CHIUNDI. HIND. Adelia serrata.

CHIURR. HIND. Pennisetum Italicum.

CHIURACY? A Penang wood, of a brown colour, specific gravity 1·081. Used for beams; does not work kindly.

CHIV-AN AMELPODI. MALEAL. Ophioxylon serpentinum, *Linn.*

CHIVENDI, the Tamil name of a Ceylon tree which grows to about eighteen inches in diameter, and twenty feet in height. It is used in house work and for other purposes. —*Edye, Ceylon.*

CHIVES. Allium schænoprasum. A variety of the onion, held in much estimation for its leaves and small bulbs, and used in soups and salads. This vegetable will grow in any common garden soil, requires plenty of water and protection from the vertical rays of the sun. Propagated either by slips or dividing the roots, this may be done at any season, but best after the rains. Nine or ten inches of space must be allowed between each bulb.—*Riddell. Jaffrey.*

CHIWANA. HIND. A place for the cremation of the hindu dead called also chihaee and chihanee. These three are derived from chaee, ashes. Murg' hut, Bhoecdugdha and Smusan or Sumsan (in Benares) are also employed to signify the same.

CHLIATÆ. The Kallat are mentioned with the Kankli, Kipchak, and Kharlik, as four Turkish tribes descended from the patriarch Oguz Khan.—*Deguingnes* II. 9. *Yule Cathay I. p.* clxv.

CHLJEB. RUS. Corn.

CHLO-AI-NI (or Chloctni.) BURM. Eriolœna, *Species.*

CHLOBTS CHATAJA : BUMAGA—? Cotton.

CHLŒNII, one of the Coleoptera.

CHLORANTHUS, a genus of plants belonging to the natural order Chloranthaceæ.—White gives C. Indicus.

CHLORANTHUS BRACHYSTACHYS is a native of the coast of Java. Its properties are like those of C. officinalis.—*Engl. Cyc. page* 1052.

CHLORANTHUS OFFICINALIS is a smooth shrub 3-4 feet high, with opposite straggling branches, tumid at the articulations, fistular when young. The plant is a native of Java, in the moist woods, at an elevation of 1,500 feet above the level of the sea. All the parts are powerfully aromatic; the roots, if quickly dried, retain their properties for a long time, and the mountaineers of Java employ them in infusion as a remedy for spasms; also when united with anise or *Ocymum* it is given in small-pox. In fevers and a suppression of the functions of the skin it is said to be of the greatest service. It is no doubt a powerful and active stimulant.—*Engl. Cyc. page* 1052.

CHLORATE OF POTASH, Syn of oxymuriate of Potash.

CHLORIDE OF LIME, a white powder of lime in which chlorine gas is mechanically mixed. It is used as a disinfectant and bleaching powder.

CHLORINATED SODA, a solution of this is Labarraque's disinfecting fluid, the Liquor soda chlorinatæ. To make it, take of carbonate of soda one pound, water forty fluid ounces : dissolve and pass through the solution chlorine gas evolved from peroxide of manganese three ounces, common salt four ounces, sulphuric acid four ounces. This mixture may be placed in a leaden retort and gradually heated, the gas should first be passed through five ounces of water in an interposed bottle. It contains chlorous acid and carbonate of soda. The colour of the liquid is pale yellow, smell that of diluted chlorine, it bleaches powerfully, and is used in fumigation, and for destroying the smell of decaying animal matters.—*Beng. Phar. p.* 363.

CHLORIDE OF SODIUM. See Sodii Chloridum.

CHLORIDE OF ZINC. . Captain Keppell believes Sir William Barnett's solution of chloride of zinc, properly applied, the only composition yet known that will preserve anything from the white ants.—*Keppell's Ind. Arch., Vol. II., p.* 189.

CHLORINE. To prepare a solution of this, take muriate of soda sixty grains, sulphuric acid two fluid drachms, red oxide of lead three hundred and fifty grains, water eight fluid ounces. It is used for bleaching, also for inhalation, and for the fumigation of infected apartments.—*Beng. Phar. p.* 369.

CHLORITE Grains, or lamina of chlorite, are found in connection with tin.

CHLORITE SLATE, portions of the beds of clay slate east of Tavoy, contain chlorite slate. It is the Moongnee stone of Orissa, which when freshly quarried, is comparatively soft and easily workable, but by long weathering becomes highly indurated, black and bright. It comes from the hill state of Nilgiri, in Orissa, where extensive quarries are said to exist. It is used for utensils and idols. The Aroon Khumba, a polygonal column in front of the principal entrance of the Pooree Temple, is made of it; also the elaborately carved and figured slabs of the top and sides of the doorways of the old

Temple of the Sun at Kanarac in the same district, and the gigantic figures of deities of Jagapore, in the Cuttack district. It is supposed, however, that Moongnee is a general term applied to several kinds of stones, of which Kahree 'Moongnee' is one.—*Cat. Ex. p.* 62.

CHLOROPHYLL is a substance similar in its nature to wax. It is contained in the deep cells and mesophyllum of leaves. *Winslow*. See Cannabis sativa.

CHLOROXYLON DUPADA. HAM. Syn. of Vateria indica. See Resins. Dammer.

CHLOROXYLON SWIETENIA. *Roxb.*; *W. & A.; D. C.*

Swietenia chloroxylon. *Roxb.*

Satan wood	ENG.	Porasham	TAM.
Dhoura	HIND.	Kodawah porasham	,,
Halda	MAHR.	Billuda	TEL.
Mal burute or flowered satin ; Buruta	SINGH.	Billu chettu	,,
		Bilugu?	URIA.
Mududa	TAM.	Bhayroo	,,
Vum-maai	,,		

The Satin wood tree grows in Ceylon, in the northern and southern, but chiefly in the eastern, districts, where it attains a large size and is esteemed next to the Calamander in value. It grows in Coimbatore, in the Anamallai hills, where, latterly, Dr. Wight got planks 15 inches broad. Indeed, some of the finest satinwood to be any where seen is to be met with near the foot of the Anamallai; though, even there, this valuable wood is rapidly disappearing under the cultivator's axe. It grows at Gokak. Dr. Gibson, writing from the Bombay Presidency, says he had never seen it reach beyond the size of a small tree, which, when straight (seldom the case), would afford a log squaring three inches. It is a rare tree, also being, in so far as he had seen, found only in the Padshapoor jungles, and in those of the upper Mool, in the Ahmednuggur collectorate. In the coast forests he had never seen it. Dr. Cleghorn, in the M. E. J. Reports, says the tree grows abundantly in the mountainous districts of the Madras Presidency, but seldom attains a large size, though occasionally planks of 10 to 15 inches in breadth may be procured. In Ganjam and Gumsur its extreme height is 40 feet, circumference 3 feet, and height from the ground to the intersection of the first branch 20 feet. The tree is not so common in Gumsur as in Bodo godo, and it is said to be still more plentiful in Mohery and other talooks to the south. The Billu Karra of the Circars, says Mr. Rohde, is a most serviceable hard wood, well suited for naves of wheels, and, were it procurable in any quantity, for all frame work requiring strength and durability. The Peradenia bridge, a single arch of 205 feet on the road to Kandy, was designed for and principally executed in this wood. The wood is very close grained, hard and durable, of a light orange colour, takes a fine polish, and is suited for all kinds of ornamental purposes, but is somewhat apt to split. For picture frames it is nearly equal to American maple. The timber bears submersion well, in some instances it is beautifully feathered. The flowered or feathered satin wood, when first polished, is one of the most beautiful woods in the world. Mr. Rohde has seen specimens surpassingly beautiful, but, the valuable logs are not distinguishable from ordinary satin wood till sawn, and twenty or forty may be cut without one of any beauty being found. The feathered satin wood seems very liable to sever when dry and old: articles of satin wood get darker and lose much of their beauty by age, unless protected by a coat of fine varnish. A cubic foot weighs 55 to 57 lbs. It is used for axle trees, oil presses, posts, bed posts, rafters and the handles of axes, and, in the Madras Gun Carriage manufactory, for naves of wheels; also for fuses. The leaves are applied to wounds. The wood is heavy and strong, and reckoned very excellent for pieces of agriculture implements. Latterly it has been much employed in Madras as fuses, internal decoration and furniture, brushes, turnery. It is excellent for naves of wheels. Dr. Gibson had not seen it used in cabinet work in the Bombay territory.—*Drs. Gibson, Wight, Cleghorn, Mr. Rohde, Mr. Mendis, Roxb.* ii. 400, *Hartwig. Thw.* i. 61.

CHO. HIND. Pyrus malus.

CHOANA. See Arians.

CHOARGERRYDROOG, in L. 77° 10′ E. and L. 13° 54′ N.

CHOASPES, the ancient name of the river on which Susa, in Khuzistan, was built. It is the modern Kerah river, near which are the ruins of Susa.—*Williams' Essays, p.* 13.

CHOB. HIND. A stick, a pole, timber, a mace. Chob-dar, a mace-bearer. The chob is made of silver, ivory or wood. It is probable that the office of gold stick, adopted in the English court, was borrowed from the East. Most men of rank in India, hindu, mahomedan, or British, retain this description of attendant; mostly however bearing a silver stick, but having the common name of Chobdar, or staff-bearer. The chob, or baton, is about five feet long with a head, and as thick at the upper end, as one's wrist, or as a constable's staves. (Mar) Chob is the Staphylea emodi, (Siyah) Chob is a species of Fraxinus.—*Hindu Infanticide, p.* 133.

CHOB-CHINI. GUZ. HIND. Smilax China, China root.

CHOB-I-PAU. PERS. Fothergilla involucrata.

CHOB-KUT. HIND. Costus or scented root.

CHOBS ?—Campanula edulis.

CHOCHENA. Uria. ? A tree of Ganjam and Gumsur. Extreme height 60 feet, circumference 5 feet, and height from ground to the intersection of the first branch 9 feet. Chiefly used for firewood, the tree being tolerably common. The bark is used medicinally in fever. The milk is given medicinally to children in a disease there called "Doobelle."—*Captain Macdonald.*

CHOCHHI. Hind. ? A tree of Chota Nagpore, yielding a hard, reddish grey timber.—*Cal. Cat. Ex.* 1862.

CHOCOLADE. Dut. Chocolate.

CHOCOLAT. Fr. Chocolate.

CHOCOLATE. Eng. Port. Sp.

Chocolade,	Dut.	Cioccolata,	It.
Chocolat,	Fr.	Schokolad,	Rus.
Schokolate,	Ger.		

A nutritious article of diet manufactured from the nuts of the Theobroma cacao and T. bicolor of the western hemisphere. It reaches India in the various forms of chocolate nibs, flake chocolate, soluble chocolate, and flake cocoa.—*McCulloch.*

CHODMAL. Hind. Brassica, *Species.*

CHOECARPUS PUNGENS ? ? ? Hedde woke. Singh. Under these names, is mentioned a tree of the western province of Cey- [illegible] Its wood weighs lbs. 58 to the square [illegible] and lasts 50 years. It is used for com- [illegible] house building purposes.—*Mendis.*

[illegible]HŒNOSTOMA POLYANTHUM. One of the Scrophulariaceæ, pretty dwarf plants, of a white and light yellow colour, well adapted for borders, and thrive in any garden soil.

CHŒTOCARPUS CORIACEUS. Thw. A moderate sized Ceylon tree, common.—*Thw. En. Pl. Zeyl. p.* 275.

CHOGA, a long great coat in use in Afghanistan, which reaches to the feet. The "Pos- [illegible] also an overcoat, comes down to the mid- [illegible] f the thigh. By wearing a turban, or kajar [illegible] and a common choga over ordinary [illegible] es, European travellers in those coun- [illegible] avoid much annoyance.—*Ferrier, Journ.* [illegible] *ntures of a Lady in Tartary, &c. Mrs. Hervey Vol.* I, *p.* 356.

CHOGU. Hind. Taxus baccata.

CHOHA. Hind. A well.

CHOHAN, or Chahuman, one of the Agnicula tribes, which formed a dynasty that reigned at Ajmir and Dehli, and afterwards at Kotah and Bundi. Ajipala, one of this dynasty, founded Ajmir in A. D. 145, and in A. D. 684, it was lost to the mahomedans by Dola Rai. A. D. 77 Harihara Rai defeated Subaktegin. The race has been conspicuous for bravery during two thousand years. The leading individuals have been—

Anhul or *Agnipala*, "offspring of fire," the first Chohan; probable period 650 before Vicrama, when an invasion of the *Turshka* took place; established Macavati nagri (Gurra Mundilla); conquered the Konkan, Aser, Golconda.

Suvatcha Mallan. In all probability this is the patriarch of the Mallani tribe.

Gulun Soor, p. 202. *Ajipala.* "*Chukwa,*" or universal potentate; founder of Ajmer. Some authorities say, in 202 of the *Vicrama*; others of the *Virat*-Samvat: the latter is the more probable.

Dola Rae. Slain, and lost Ajmer on the first irruption of the mahomedans, S. 741, A. D. 685.

S. 741. *Manika Rae.* Founded Sambhur: hence the title of Sambri-Rao borne by the Chohan princes, his issue.

S. 827. *Hursraj.* Defeated Nazir-oo-din (qu. Soobektegin ?), thence styled 'Sultan-graha.'

Beer Beelundoo, or Dhermagnj; slain defending Ajmer against Mahmood of Ghizni.

S. 1066 to 1130. *Beesuldeo.* (Classically, Visaladeva); his period, from various inscriptions, S. 1066 to S. 1130.

Sarangdeo. Died in nonage.

Anah. Constructed the Anah-Sagur Ajmer; still bears his name.

After Anah, were Jeipal, Ajeydeo or Anundeo, and Someswar. Someswar married Rooka Bae, daughter of Anung Pal, Tuar, king of Delhi, and their son Prithi-raj, succeeded to the throne of Delhi, and is said to have been slain by Shahabud-din S. 1249, A. D. 119 His son Rainasi also fell. Vijaya raj, son Someswar, whose name is on the D pillar, was a nephew of Prithi-raj, and of adopted as his successor; his son Lakusul-had twenty-one sons, seven of whom w of legitimate, the others illegitimate and founder of mixed tribes. From Lakunsi there are twenty-six generations to Nonud Sing, the late chieftain of Neemana, the nearest lineal descendant of Ajipal and Prithiraj.

The genealogical tree of the Chohans exhibits thirty-nine princes, from Anhul, the first created Chohan, to Prithi-raja, the last of the hindu emperors of India.

The mahomedan historians say that Prithee Raj was killed at the battle of the Cuggur, or shortly afterwards; but Chand, or rather his continuator, represents him as dying in captivity at Ghuzni; and the bard would gladly have concealed so humiliating a fact if he could. Several Chouhan sepoys after the capture of that fortress, sought out, and professed to find, the Chhutree of their ancestor, where they shewed their devotion to his memory by presenting their humble offerings in honor of the champion of their faith. The desert tribes in the Chohan territory, the Sahrai, Khossa, Koli, Bhil, were predatory. The western Chohan are said to be free from infanticide, they do not wear the zonar, nor form a circle (choki) in cooking, and their cooks are usually of the barber caste. Boondi and Kotah are the most celebrated of the existing Chohone. Twelve branches of the Chohone became mahomedans.—*Prinsep's Antiquities by Thomas, p.* 248. *Tod's Raja' Elliot, Supp. Gloss.*

CHOHAR OR CHUAR. A tribe of mountaineers in the hills of Ramgarh, &c.— *Wilson.*

CHOHUR, a river near Serohee in Rewah.

CHOI. HIND. Also Jira, Hind, a hole in the bed of a river, to get water.—*Elliot.*

CHOI, the outer leaf or spathe of the sugar-cane.

CHOIGYAL. TIB. Dharmaraja, the judge of the dead, Shin-je, Tib. is also said to have the same meaning.

CHOIL. Punjabi of Cis-Sutlej, low, swampy, undrained land.

CHOITRO, a hindu month corresponding to the latter half of the month of March and first half of April, the full moon of Choitro therefore corresponds with the full moon of Easter. It was in this month that the devotees engaged in the ceremonies of the Charakh puja, the swinging sacrifice.

CHOITUNYA, a hindu religious reformer, who founded the Gossai sect. He was born at Nuddea in Bengal A. D. 1485. He was the son of a Baidik brahman who had removed from Sylhet to Nuddea. The age in which he was born had been preceded by one of [illegible] religious reforms and innovations. There had been Ramananda who had revived the four caste movement; and Kabir who set aside both the hindu Shastars and the Koran and preached a universal religion. In Bengal, buddhism had maintained its supremacy up to the tenth century. On the accession of the Sena princes, Saivism gained the ascendency and predominated in the land. Under coalition with Saktaism, the worship of the emblems of the energy of man and the fruitfulness of woman, it had degenerated to the most abominable creed of the Tantro Shastras which culminated in the worst forms of libertism about the time of Choitunya. Two thousand years ago had a greater reformer viewed with disgust and a relenting heart, the bloody rites and sacrifices of the Vedic Yagya and to reform the abuses had Buddha promulgated the doctrine of non-cruelty to animals. In like manner, the bacchanalian orgies of the Tantrika, and their worship of a shamefully exposed female, had provoked the abhorrence of Choitunya, and roused his energy to remove the deep blots upon the national character. He commenced his labours by holding meetings of his immediate friends at the house of Sree Bhasa. His labours lasted through six years, when he entrusted his disciple Nityananda to propagate his views, and it is to Nityananda that the origin of the Gossai is owing. In 1509, Choitunya, styled Nemye, formally renounced the world by embracing the life of an ascetic. He then wandered from place to place, travelled to Gour, proceeded to Benares, visited Brandabun and Pooree, teaching his sentimental theology, making numerous converts, and devoting all his energy, time, and life to the fulfilment of his mission. His peregrinations lasted for six years at the end of which he returned to Nilachull near Juggernauth, and settling there passed twelve years in an uninterrupted worship of that divinity. In his last days his intense enthusiasm and fervour affected his sanity, and he is said to have drowned himself in the sea under the effects of a disordered brain.

Hindoos of all castes are admitted into Choitunya's fraternity, and, once admitted, are associated with on equal terms by all the brethren. His predecessors Ramanand and Kubeer, had taken low-caste men for their disciples. But he scrupled not to permit even mahomedans to enter his fold, and two of his most eminent followers Rupa and Sonatun were originally mahomedans, ministers in the court of Gour.

The Gossai marry, most of the Baniah of Bengal follow their tenets, but their doctrines are held in little esteem. They are regarded as guru or teachers, but scandal has not arisen from them. The Gosaees observe none of the hindu festivals except those of Krishna; but the anniversaries of the deaths of their founders are observed as such. They do not, says Mr. Ward, reject the mythology, or the ceremonies of the hindus, but they believe that those of Huree (Krishna) only are necessary. On the nights of their festivals the initiating incantation, or some similar exclamations, may be heard resounding through the streets of Calcutta: Huree, Krishna; Huree, Krishna; Krishna, Krishna; Huree, Huree; Huree, Ram; Huree, Ram; Ram, Ram, Huree, Huree."—*Cole. Myth. Hind. p.* 240. See Chaitanya, also Cheitun.

CHOK. HIND. Gmelina arborea.

CHOKA. HIND. Rumex vesicatoria.

CHOKA. DUK. Piper nigrum.

CHOKE DAMP. ENG. Carbonic acid.

CHOKHA. The root of a plant that is brought from Delhi to Ajmere; it is heating: taken internally as a narcotic, is bitter. It is chiefly used mixed with sulphur and oil to cure the itch in camels.—*Gen. Med. Top, p.* 131.

CHOKHADAR. In India a watchman, a policeman. The Chokhadar or Ich Agasi of the pashalic of Bagdad, is one of the pages of the pasha's presence.—*Mignan's Travels, p.* 6109.

CHOKI SHUE MUT PHYA, L. 23° 4′ N. L. 96° 15′ E. in Burmah, 2 miles N. of Amarapura. It is 579 feet above the sea.—*Schl. A. O.*

CHOKLU. Hind. Rhus succedanea.

CHOLA, an ancient dynasty in the south of the peninsula of India, regarding whom little has come down to the present day. In the southern districts of the peninsula of India an ancient aboriginal people called Curumber are the earliest known occupants of Dravida Desam, the modern Carnatic and Coromandel. They seem to have established numerous petty principalities over the whole peninsula, which were ultimately absorbed in the Chola empire. Numerous sites attributed to this race and still called Curumber Cotes, are to be met with. Small communities of the same tribe are found to this day in the less accessible hills and forests of many parts of the peninsula. The several capitals of the Chola were at Conjeveram, Wori-ur, Combaconum, Gangondaram, Tanjore. But the whole history of this, the most important ancient power in the peninsula, is involved in great obscurity. We have no authentic information that can be trusted, anterior to the 9th century, yet they must have been exercising sovereignty in the time of Ptolemy, who makes mention of "Arcati soren," and in the Mahawanso, frequent references to transactions with the Chola occur during the earliest periods of the Singhalese annals. The Tamil traditions abound with stories of Adonda Chakravarti, who appears to have been the subduer of the aboriginal or Curumber tribes; yet no trustworthy records of his origin and actions are forthcoming, neither have authentic accounts of the overthrow and extinction of any of the great southern states been yet obtained. The Chola Kingdom at one time reached as far as the river Kistnah. The Ceded Districts formed part originally of the kingdom of the Chola, with whom they were occasionally disputed by the Calyan Chalukya, and ultimately they constituted the principal portion of the kingdom of Bijanagar or Anegundi. The capitals of the latter power were successively Bijanagar on the Tungaboodra, Penaconda and Chandragiri. The ruins of Bijanagar and Chandragiri are extensive and remarkable.

Elphinstone says that the proper limits of the Chola Kingdom were those of the Tamul language, and Mr. Ellis thinks that it had attained to this extent at the beginning of the Christian era, but the same gentleman is of opinion that, in the eighth century, its princes had also occupied large portions of Carnata and Telingana, and ruled over as much of the country up to the Godaveri as lay east of the hills at Nandidrug. They seem however to have been first checked, and ultimately driven back, in the twelfth century, within their ancient frontiers. In this state they continued to subsist, either as independent princes or feudatories of Vijayanagar, until the end of the seventeenth century, when a brother of the founder of the Mahratta state, who was at that time an officer under the mussulman king of Bijapur, being detached to aid the last raja, supplanted him in his government, and was first of the late hindu family of Tanjore. The capital, for most part of their rule, was, he says, at Canchi, or Conjiveram, west of Madras.—*Elphinstone History of India, p.* 414. *Prinsep by Thomas, p.* 279. *Mr. W. Elliot.*

CHOLAMANDELOOR, said to be the source of the term Coromandel, applied to the east coast of the peninsula of India, the Carnatic below the ghats.

CHOLA. Hind. ? Cicer arietinum.

CHOLAY, of Nepaul. Capra hircus, *Linn.*

CHOLI. Hind. A boddice worn by most of the women of British India. It is of various shapes but generally of coloured material. See Boddice.

CHOLI. Duk. Portulaca quadrifida, *Roxb. Linn.*

CHOLLA. Tel. Eleusine coracana, *Gaertn.*

CHOLUM. Tam. Sorghum vulgare.

CHOM-DAN-DAS. See Buddha.

CHOMONDRI, or Chalembry, the Tamil name of a Ceylon tree, the wood of which is of a very dark colour, and durable. It grows to between twelve and twenty inches in diameter, and twenty feet in height. It is used by the native carpenters for general purposes. It produces a fruit which is used as medicine.—*Edye, Ceylon.*

CHOMPRENG, a river cargo boat. The prahu or boat called Sekong, is made of one log of wood, very sharp fore and aft, with long out-riggers to prevent its upsetting. *J. I. Arch. Nos.* vi. *to* xii.

CHONEMORPHA ANTIDYSENTERICA. Don. Syn. of Holarrhena antidysenterica, *Wall.*

CHONEMORPHA MACROPHYLLA, one of the Apocynaceæ. It takes its name from *chone* a funnel, and *morpha* form; a very handsome climbing shrub, with large white flowers, well adapted for a screen or covering a wall.—*Riddell*

CHONEMORPHA MALABARICA Don Echites malabarica *Lam.* | Pul-valli. Maleal.

A Malabar plant. Its leaves rubbed up in rice water are applied to carbuncles : and its root is used in fever, with dried ginger and coriander seed.—*Useful Plants.*

CHONG, an infusion or fermented liquor, made by the Lhopa of Butan, from wheat, barley or rice, which is boiled and strained, afterwards one ball, size of a nutmeg, to each pound of grain, of the blossom of the Cacalia saracenica (Bakka), is crumbled and strewed over the grain. It is then pressed in baskets lined with leaves. To use it, a portion of the digested mass is put into a vessel, boiling water poured over it and infused. It is now the *Chong*, and it is a grateful beverage, slightly acid and not powerfully alcoholic.

CHONG, a hill tribe on the side of the Mekong basin, but towards the sea between L. 11° and 12° N. They preserve more of the Australo-Tamulian character than any of the neighbouring tribes. Their hair instead of being stiff or harsh as in the Mongolian, Tibetan, and prevalent ultra-Indian and Malaya-Polynesian race, is comparatively soft, the features are much more prominent and the beard is fuller.

CHONGMONGO. Hind. Nepeta floccosa.

CHONTI. Hind. Amongst hindus, a tuft of hair left unshaved on the top of the head. It is also called Choti, also Chuda. Mahomedan boys sometimes retain it, as a votive offering to some saint. All mahomedan women dress their hair with the Chonti, or tail, hanging behind and largely added to by their hair that has been combed out. See Choora.

CHOOA. Hind. also Battoo, also Marsa, Amarantus oleraceus, *Elliot.*

CHOOARA. From Chooara to Sungla of Took-pa, three passes cross the top of the Himalaya range in Kunawar, Neebrung 16,035 feet, Goonas, 16,026 feet, Goosool 15,851 feet, all crossing the top within half a mile of each other.

CHOOBOO, a hybrid between the yak and the Indian cow.

CHOOKRA, the lowest class of village servants. Kummalu, or Bhungee, Hulal khor, and Khak-rob. The head of the race is called Mihtar (Persian, a prince) and his perquisites are Mihtarai.—*Elliot.*

CHOOIA, a rivulet or naddy near Shahzad bari and Hurdashpoor in Bareilly runs near Nugeena in Bijnour.

CHOOKEH. Hind. Beng. Rumex vesicarius, *Sorrel.*

CHOOKO-PALUNG. Beng. Rumex vesicarius.

CHOOKUL or CHOPUT. This is in general use amongst the natives in Manbhoom during wet weather.

CHOOLA, a tribe of Tuga in Baghput, so called from having come from Chooloo or Chooro in Bikanir.—*Elliot.*

CHOOLAEE. Hind. This name is indifferently given to Spinacia tetrandra, Tetrandous spinach, and Amarantus polygamus. The former is a common sort of native greens, and, when boiled, resembles spinach ; it is procurable nearly all the year round. The latter is much cultivated by the natives. It is sown broad-cast in beds from June to March. The leaves are sold in the bazar at one pice the seer. Used as greens and also in curries.—*Riddell, Jaffrey.*

CHOOLI. Hind. A whirlpool, also the rounded stones formed by attrition in running water, called also Rori, and Binlung. They are used by Saiva hindoos as the lingam, emblem of Siva. See Bin-lung ; Chuli.

CHOOMLI KOL. A branch of the Kol race, also called " Mullar" and " Panburri." This branch is respectable, and is employed in every Dekkan village as a member of the third division of the Balottah, and supplies water to travellers, wearing on his head the Choomli or twisted cloth, on which to rest the pot ; hence the name.

CHOO-MO-REE-REE. This lake owes its name to a legend. A goddess " Mo" is said to have haunted this lake " Choo," and while flitting over it, used to call out incessantly, " Ree, Ree !" thence Choo-mo-ree-ree ! It is on the lofty platform of Rupchu, which extends from the Parang pass across the main chain of the Himalaya, to the adjacent head of the Zanskar valley. The lake is 15,200 feet above the level of the sea.—*Mrs. Hervey's Adventures of a Lady in Tartary, Vol. I, p. 148. Hooker et Thomson.*

CHOONCHA. Beng. Country sorrel.

CHOONDUREE. Once a year, on a festival day, amongst hindus, sons visit and pay adoration to their fathers. The diet is chiefly of vegetables and fruits. Brahmins, with their unmarried daughters, are feasted, and receive garments called *choonduree* from their chiefs.

CHOONEA. A Kafir tribe. See Kafiristan ; Kush.

CHOONGUL. Hind., also Khonch, a handful of anything.—*Elliot.*

CHOONJERMA. A pass in Nepaul, in Lat. 27° 33′, Lon. 88° 1′. Crest 16,000 feet. Temperature 24° at 5 p. m.

CHOON-KHURKEE. Beng. Apluda aristata.

CHOONOKOLEE. Uria.? A tree of Ganjam and Gumsur. Extreme height ten feet, circumference one foot, and height from ground to the intersection of the first branch, five feet : said to be a common useless tree. The fruit is eaten.—*Captain Macdonald.*

CHOOPREE ALOO. Hind. Dioscore

globosa. Tubers roundish, very large, white inside, and much esteemed; the skin thin and smooth like a potato. The stems require strong sticks to creep over; it bears a large roundish fruit, like an oak apple in appearance, which is also edible. The words seem to be correctly Safri-alu.—*Riddell.*

CHOORA-KARANA. Sans. From Choora, the bunch of hair on the crown of the head, and kree, to do. See Chonti.

CHOORCHITTI. Hind. Paper or deed of relinquishment.

CHOOTI-ELACHI. Hind. Elettaria cardamomum. Properly Choti-Ilachi, the Lesser Cardamom.

CHOOTRAPHUL. A Nepaul tree, not unlike the barberry; the wood is of a strong yellow colour, but does not afford a permanent dye; the women of Nepaul use it instead of sandal for tracing the tillah on their forehead.—*Smith's Nepaul.*

CHOP. Chin. A brand, a stamp, a seal: from chap, Hindi.

CHOPADA. Sum. Artocarpus integrifolia, *Linn.*

CHOPANDIGA. Hind. Achillia millefolium.

CHOPAR. Hind. Hiptage madablota.

CHOPDI. Guz. Books.

CHOPRA. Hind. Adelia serrata.

CHOPRA. A tribe of the Bara-jati class of the Khutri. See Khutri.

CHOPUT. Hind. Chess-cloth.

CHOR. A mountain 25 miles S. E. of Simla. It rises to a height of 11,982 feet above the sea. See Chur.

CHOR. Hind. Coriaria Nepalensis.

CHORA, in Kaghan, Quercus dilatata, Q. ilex: in the Simla hills, Angelica archangelica.

CHORA. Guz. Dolichos catiany.

CHORA KANTA. Hind. Andropogon aciculatus. The Spear-grass.

CHORAM. Tam. Food.

CHORASMIA, or Khwarizm, the country on the east of the Caspian Sea, the capital of which was Gurganj. The Arabs converted the name of the country into Jurjan, and that of the capital to Jurjaniya. The Mongol form of the name was Organj. Noshtigin, a Turkish slave of Malik-shah Saljuk was made governor of the province, and contrived to secure his independence. His son, Kutb-ud-din, extended his dominions, and acquired the title of Khwarizm-Shah, a name which had been borne by the rulers of the country before the mahomedan sway. This empire of the Khwarizm kings rose upon the ruins of the Saljuk dynasty, and their territories extended from Azarbaijan and the Caspian Sea to the Indus, and from the Persia Gulf to above the Sihun or Jaxartes. A succession of nine princes reigned for 138 years, from 491 to 628 Hijra (1097 to 1230 A.D.), but in 618 H., the last of them, Jalal-ud-din Mankburni, was driven by Changiz Khan beyond the Indus, and he was killed in Mesopotamia ten years afterwards, stripped of all his dominions.

CHORAYEGODEE. Uria.? A tree of Ganjam and Gumsur. Extreme height 22 feet, circumference 1½ feet, and height from the ground to the intersection of the first branch, 6 feet. Used for firewood.—*Capt. Macdonald.*

CHORBAT. This district is a dependency of the government of Iskardo, which, like that of Le, is subject to Kashmir. The desert country by which Nubra and Chorbat are separated has, for the present, acted as a barrier to the further extension eastward of the mahomedan religion, which is now universally that of the people of the whole of the Iskardo (or Balti) district, as well as of Dras. On the Indus, and in the valleys south of it, there is no uninhabited tract between the two, so that the mahomedan and buddhist population are in direct contact. The result is, that mahomedanism is in that part gradually, though very slowly extending to the eastward.—*Dr. Thomson's Travels in Western Himalaya and Tibet, p.* 204. *Tibet.* See Maryul. India 317, 337.

CHOR-GANGA, in A. D. 1131, invaded Orissa and established the Ganga-vansa dynasty, which lasted till A. D. 1451. See Chur-Ganga; Orissa.

CHORI AJUAN. Duk. Seeds of Cleome viscosa.

CHORIZEMA SPECTABILIS. One of the Leguminosæ, an ornamental flowering plant found on the west coast of New Holland by Labillardiere, some species have scarlet coloured flowers, others yellow and red: they grow best in a rich loamy soil, and may be raised from cuttings, as well as seeds, which they produce in abundance.—*Riddell.*

CHOR-KANTA. Beng. Chrysopogon acicularis, Syn. of Andropogon acicularis. Spear-grass.

CHOR-KONDA, a glacier in Balti, in Tibet, is in L. 35° 36′ N. and L. 75° 58′ E., and 16,900 feet above the sea.

CHOR-KULLI. Hind. Soymida febrifuga.

CHORO-CADAMBOO.? Tam. A Travancore wood, of a yellow colour, specific gravity 0·529, used for packing cases.

CHOROLI KI BHAJI. Duk. Portulaca quadrifida.

CHOR-SACI, an ancient term by which the Scythians designated the ancient Persians. See Kurmsaq.

CHOR PUTTA or SURAT. Urtica crenulata, a gigantic stinging nettle, a native of the hills and valleys on the east of Bengal, Luckipore, Pundua Hills and Assam. This nettle affords a quantity of fine white fibre of no great strength, and not durable. The hill tribes fabricate it into coarse cloths.—*Royle Fib. Pl.*

CHORUR, a river near Joum in Holcar's kingdom.

CHORTEN, in hinduism, a pile dedicated to the five elements. It seems to be the buddhist Chod'ten, or relic receptacle.

CHOR-UTAR, in Mewar, a grant of land by the sovereign, resumable at pleasure. See Kala-patta.

CHOSA. SANS. Papaver somniferum Poppy.

CHOSROES, in Persian, Khusru or Kesri, Kasru or Kasra, two Persian kings of this name of the dynasty of the Arsacidæ;

Chosroes I, styled Nousherwan, A. D. 531 to 571, was defeated on the plain of Melitene, by Justinian, the general of Tiberias Constantine. Amongst the plunder obtained was his drinking cup, of gold and paste jewels, which is now in the Bibliotheque Imperial of Paris. He was succeeded by Hormuzd.

Chosroes II. or Khusru Parvez A. D. 591, reigned till A. D. 623, when he was put to death by Kobad. He was grandson of Chosroes I, and he married a daughter of the emperor Maurice, and this lady is generally supposed to be the heroine of the eastern romances Khoosroo and Shireen, and Farhad and Shireen. Near Baghdad is an arch, known as the Tak-i-Kasru, or arch of Chosroes, which marks the site of the ancient Ctesiphon. —*Mordtmann, Smith, Prinsep by Thomas.* See Greeks of Asia, Kasr, Khosru Parvez, Sassanian kings; Tigris.

CHOT. HIND., also Ghoonghi, a blanket, cumbli, or sheet, folded or tied at one end to form a cloak.—*Elliot.*

CHOTA. HIND. Pyrus Kumaonensis.

CHOTA. HIND Small, little.

CHOTA AKUNDA. HIND. Calotropis herbacea, *Carey.*

CHOTA AL KI PAT. DUK. Morinda umbellata leaves.

CHOTA CHAND. BENG. HIND. Ophioxylon serpentinum.

CHOTA CHIRAYTA. HIND. Cicendia hyssopifolia. Adenema hyssopifolium. See Chiretta.

CHOTA GUL KHAIRU. See Khabaji.

CHOTA JAM. BENG. Eugenia caryophillifolia.

CHOTA KALI SIND, a river near Dabla in the Indore territory.

CHOTA KAROONDA. DUK. Carissa spinarum.

CHOTA KOKSUN. BENG. Vernonia cinerea, *Less.*

CHOTA-KANOOR. DUK. Aloe lituralis.

CHOTA NAGPORE, properly Chuttia Nagpore, is the country on the eastern part of the extensive plateau of Central India, on which the Koel, the Subunreka, the Damudah and other rivers have their sources. It extends into Sirgujah and forms what is called the "Upar-ghat" or highland of Juspur, and it is connected by a continuous chain of hills with the Vindhyan and Kymor ranges from which flow affluents of the Ganges, and with the highlands of Amerkuntuk on which are the sources of the Nerbudda. The plateau averages 2,000 to 3,000 feet above the level of the sea with an area of about 7,000 sq. miles. It is on all sides difficult of access. It is a well wooded, undulating country, diversified by ranges of hills, and has a genial climate. The population in 1866, was estimated at about a million, and is formed of a number of non-Arian tribes who had fallen back to that refuge from the plains, more than halfof them being the race known to Europeans as Kol. On the south west frontier of Bengal, besides Chota-Nagpore, are Sirgoojah, Palamow, Ramgurh, Hazareebagh, Mynpat and Amarkantak. The elevation of Chota Nagpore is 2,000 to 3,000 feet with hills running E. and W., but of little height; Sirgojah is mountainous, rising 600 to 700 feet above the level of Chota-Nagpore. Mynpat is a table-land about 30 miles S. E. from Sirgoojah town, and about 3,000 or 3,500 feet high. Palamow district is very mountainous. Hazareebagh town, 24°, 85° 54′; 1.750 feet. Slope of the country to S. towards Sumbulpore. N. and E. parts of district very mountainous, but level and even depressed towards the Mahanuddy. Sumbulpore town, only 400 feet. Orissa table-land then rises on the southern side of Mahanuddy, in some places to 1,700 feet backed by the chain of E. Ghauts. Amarkantak, jungle table-land, 22° 40′; 81° 5′, 3,500 feet. The soil in the plains is generally fertile, producing abundant crops of wheat, barley, rice, pulse, excellent vegetables, cotton and sugarcane. The cultivated parts are overrun with a coarse grass.

There are 21 mehals, which form the S. W. frontier of the Bengal province, and which may be classified in four groups, the Sumbulpore, Patna, and Sirgooja groups, and Singhboom.

The Sumbulpore Group

Sumbulpore proper.
Burgurh.
Baigurh.
Suktee.
Gangpoore.
Sarungbur.
Bunnie.
Bamra.
Rehra Cole.
Sonepore.

The Patna Group.

Patna proper.
Phooljhur.
Bora Samur.
Khuriar.
Bindia Nowagurh.

The Sirgooja Group.

Sirgooja proper.
Jushpore.
Oodeypoore.
Korea.
Chang Bukar.

Singboom.

The territories comprised in the Sumbulpore and Patna groups which were ceded to the British Indian Government by the Treaty of 1830 with Ragoji Bhonsla, were all, except Raigarh, restored in 1806, and finally reverted to the British in 1826. The Sumbulpoor and Patna groups are in the circle of the Cuttack Tributary Mahals. Singhboom was never Mahratta, and in 1857 its chief, the raja of Poorahat, joined in the rebellion, many of the Lurka Kol following him. A christian mission went to Chota Nagpore, in 1845, and has made much progress amongst the Dhangar race. In Chota Nagpore, in which are the districts of Maunbhoom and Singhbhoom, the mortality from the famine of 1866 fell on the population about the same as in Orissa.—*Lt. Col. E. T. Dalton. Bengal As. Soc. Jour. July* 1866. *Aitcheson's Treaties.* See Ho. India, 329,330. Kol 536. Sontal.

CHOTA OKRA. Hind. Zapania nodiflora, *Linn.*

CHOTAREWULIAH, a town of Oodeypoor.

CHOTA PAND-ALU. Duk. Dioscorea aculeata.

CHOTA SUNDHI. Beng. Nymphæa edulis, *D C.*

CHOTA SURJOO. A river near Azimgurh.

CHOTIAL. Hind. Rheum emodi.

CHOTI. Beng. Corchorus olitorius.

CHOTI SIM-KI PHALLI. Hind. Dolichos lablab. Native Bean. This is a smaller species of the Dolichos lablab; the legume and seeds are both eaten; it is sown in the rains, and sells from one pice or two a seer. —*Riddell.*

CHOTI ILACHI. Hind. Elettaria cardamomum, *Wh. and Mat.*

CHOTI MAI. Hind. Galls of Tamarix orientalis.

CHOTI MEGILA. Hind. See Jute.

CHOTO PHUTIKA. Beng. Osbeckia aspera, *Blume.*

CHOTTA of Kaghan, Pyrus Kumaonensis.

CHOTRA. Hind. Berberis aristata.

CHOU. Hind. Four, softened from char, four, from which are many compound words. —*Elliot.*

CHOUBE. A class of brahmins who originally received their names from reading the four (chou) Vedas, as Doobe was derived from reading two and Tribedee from reading three, of the Vedas. See Canoujea.

CHOUBEEPOOR, in L. 81° 52′ E., and L. 27° 0′ N.

CHOUBEESA. From choubees, twenty-four; is a name applied to a tract of country containing that number of villages in the occupation of a particular tribe. There are several of them scattered over the provinces, but they may perhaps be more frequent in the neighbourhood of Muttra than elsewhere.

CHOUDAPOKRY, in Long. 86° 49′ E., and Lat. 21° 6′ N.

CHOU DE BRESIL—Fr.? Caladium esculentum.

CHOUDHURI. An overseer. Commonly written Chowdri.—*Elliot.* See Chowari

CHOUHON, a rajput race who trace their origin from near Sambhur and Ajmir. See Chohan.—*Elliot.*

CHOUDWA, in Long. 70° 38′ E, and Lat. 31° 44′ N.

CHOUDWAN, a tract of country in the district of Dera-i-Ismael Khan. See Khyber, p. 514.

CHOUGH, the Cornish Chough, (*Fregilus graculus*), is an inhabitant of the more elevated regions of the Himalaya, and of all high middle Asia, also stated to have been obtained in the vicinity of Calcutta.—*Cal. Rev.*

CHOUGHAN, in Rajpootana, their champ-de-mars.

CHOUK. Hind. A market place; chouki a custom house, a police station; choukidar a policeman.—*Elliot. Wilson.*

CHOUKANDI, or Luri-ka-kodan, so called from the leap from its top of an Ahir, by the name of Luri. It is in the town of Sarnath, and is a lofty mound of solid brick-work, surmounted with an octagonal building. Hwen Thsang describes this tower to have been no less than 300 feet in height.—*Tr. of Hind., Vol I, p.* 295.

CHOUK MARAM. Tam. Casuarina muricata, *Roxb.*

CHOUL, in Lat. 18° 32′ N., Long. 72° 54′ E., is five miles south of Colaba.

CHOULA. See Hindoo.

CHOULA, also Choura, Hind. Dolichos sinensis, a pulse commonly cultivated in Hindoostan. It it also called Ruwas and Rumas, also, in Persian, Lobea.

CHOULAM. See Hindoo.

CHOULTRY, or Chattar. Hind.
Chawadi Tel. | Chattram Tam.

In the Madras Presidency, a resting-place like the mahomedan sarai, a police-station, a post house.

CHOUNDESWARI. See Hindoo.

CHOU-MURTI MAHADEVA. A name of the four-faced lingam, one of which is in one of the Ellora caves, others in the Burabur caves, and many in the Gyah district. The meaning is, as an ordinary lingam can be worshipped only looking in one direction; this four faced one can be looked to from four sides. See Burabur.

CHOUMASA. Hind. The Indian seasons are, according to the Shasters, six in number, each comprising two months. These divisions are more fanciful than real, and the common people are content to adopt the more definite division of three. Choumasa, or Burk' ha, constitutes the four months of the rainy season. The rest of the year is comprised in Seeala, Jara, or Mohasa, the cold season, and Dhoobkala, or K' hursa, the hot season. —*Elliot.*

CHOURA-DADUR, a plateau in Central India, which has an area of about 1000 square miles. It is covered with jungle.

CHOURAGAD, the highest summit of the Mahadeva Hills, has an altitude of 4,200 feet above the sea; the usual height of the range, which, entering the Nagpur territory from Gawilghur, passes by Dewaghur towards Shiwani, is not above 2,000 feet, though in the east of the same chain, where it goes under the name of the Lanji Hills, some of the peaks attain an elevation of 2,300 and two 2,400 feet. At Nagpur the country has fallen to a level of 1,000 feet. On the west, however, it immediately rises by 200 or 300 feet in a succession of eminences.—*Carter's Geological Papers on Western India, p.* 248.

CHOURASEE. Hind. Literally, eighty-four, is a revenue term applied to a subdivision of a pergúnnah, or district, amounting to 84 villages. Tod, in his "Annals of Rajpootana," where chourasees are numerous, remarks that they are tantamount to the Saxon Hundreds. (*Vol. I., p.* 141). The Chourasi, eighty-four [townships] of Ruttungurh Kheyr, was, in S. 1828 (A. D. 1772) assigned to Madaji Sindia, to pay off a war contribution; and until S. 1832, its revenues were regularly accounted for. It was then made over to Berji Tap.—*Tod's Rajasthan, Vol.* II., *p.* 637.

CHOUREEONA. Uria.? A tree of Ganjam and Gumsur, extreme height 30 feet, circumference 3 feet, height from the ground to the intersection of the first branch 8 feet. Tolerably common and burnt for firewood. The bark is used medicinally for rheumatism. The flowers are worn.—*Captain Macdonald.*

CHOUSUTH SUTOON, or Chousut Khumbeh. Sixty-four pillars. See Chounsut Khumbeh.

CHOUTAL. Malayala. A Canara tree that grows to about forty feet in height, and eighteen inches in diameter. Its wood is used by the native coopers in preference to other woods of the country for casks, vats, tubs, &c.—*Edye, M. and C.*

CHOUTH. Hind. A fourth part, implying the fourth part of the revenue, which was the war-tax imposed by the Mahrattas on all the countries that they conquered.

CHOUTUNG. A river near Futtehpoor in Umballa district.

CHOVANNA MANDARI. Maleal. Bauhinia variegata. B. purpurea.

CHOW. In China, a district. A "Chow" is similar to a Ting, as also a Heen, but each is a smaller division; each Fu, Ting, Chow, or Heen, has one or more towns, or walled cities under its guidance, one of which takes its name and rank as "Kwang-Chow-Fu" and "Shang-Hae-Heen," which latter, although of that subordinate rank, is the largest maritime city in the empire, and the greatest resort of the native ships or junks. —*Forbes' Five Years in China, p.* 10-11. *Sirr*, Vol. I, p. 211.223.

CHOWAT KURNAT. This fibrous material, from the Baram river, is supposed to be from a species of Artocarpus; its bark and bark cloth were sent to the Exhibition of 1851.—*Royle Fib. Pl., page* 341.

CHOW CHOW. Chin. Mixed preserves.

CHOW CHOW, or Nine Islands, in the Canton river, about four miles north-east of Macao, are a group which lie contiguous to each other.

CHOWDRI. A head of a division, or sect, or gang. In many hindu cities, the different classes of the community of every rank still acknowledge certain of their members, as their hereditary headsmen or provosts. These are the Sartavaha of the brahmans, and Sirdar of the mahomedans. The Chowdrani is usually a woman overseer.—*Wilson. Hind. Th.* See Choudhri.

CHOWGHAT. A district in S. Malabar.

CHOWHATTIA. A head of a tribe of the Miana race. The Miana of Mallia in Mucha Kanta, on the banks of the Muchu river, are the real masters of Mullia. They have a Thakur, but own allegiance only to their own Chowhattia. The Miana are turbulent, take service in the neighbourhood, and in every boundary fight a Miana or two are killed.

CHOWLI. Duk. Portulaca quadrifida.

CHOWNREE. A swish or fly flapper made of horse hair, the hair of the tail of the Yak of Thibet, or the fine shavings of sandalwood, and used by domestics and horsekeepers to brush flies away. They are sometimes made of the stems of sweet smelling grass.—*Herklots.* See Chowr.

CHOWNSUT KHUMBEH, or Chownsut Sutoon, as it is commonly called, is quite close to the tomb of Nizam ood-deen Aoleea, near Delhi, and is a singular structure. As the name implies, it is composed of 64 pillars. They are of white marble, supporting a square roof of the same material, which occupies a tolerably wide area. It is a building of great purity, its pale aspect of white throughout being interrupted by no other color. The lattice work that surrounds it is of very delicate execution and well polished. This building seems to be erected to the memory, if not actually over the remains, of a celebrated poet and historian, Ameer Khoosroo, a native of Samarcand and a prince. He was a contemporary and friend of Sheikh Nizam-ood-deen Aoleea, not far from whose tomb this building is raised.—*French's Tour, page* 13.

CHOWR, Chamara, or Chawri, HIND. A kind of whisk, made sometimes of peacock's feathers, sometimes from the tail of the yak, sometimes of the shavings of sandal-wood, of horse hair or of grass ; and used for the purpose of driving away flies, musquitoes, and other insects. They are usually seen in the hands of the attendants of the gods. The chamari or chowri from the white bushy tail of the Thibet cow, was, in ancient India, fixed on a gold or ornamental shaft, between the ears of the horse, like the plume of the war-horse of chivalry; the banner or banneret, with the device of the chief, rose at the back of the car; sometimes several little triangular flags were mounted on its sides. "The waveing chowri on the steed's broad brow points backwards motionless as a picture."—*Coleman, p.* 376.*Hindu Theatre, Vol.* i., *p*. 199.

CHOWRA. A dynasty that ruled at Anhilpura in Guzerat from A. D. 746 to 942, when they were dispossessed by Mul Raj, a Solunkhi Rajput. The Chowra dynasty is usually known as the Saura; the natives of the S. W. of India change *s.* into *ch.*

CHOWRI. TEL. (Chavadi) a caravanserai. —*Wilson.*

CHOWRY, one of the Nicobar Islands.

CHOY-ROOT. Chayroot.

CHOW-YU. CHIN. Dioscorea batatas.

CHOZAN TARTARS. These were Israelites professing the Jewish religion and practising circumcision.

CHRAN-KOTTA. MALEAL. Semecarpus anacardium.

CHRI KUTAJA. SANS. Connessi bark.

CHRIST, from the Greek word christos, equivalent to the Hebrew and Arabic "Massiha," from Mas'h, anointed. The Christ is Jesus of Nazareth, called Jesus, and Jesus Christ, also the Messiah. The mahomedans designate him Isa Masiha, Jesus the anointed, also designate him Ruh ullah, the spirit of God, as Moses is known as the Kalam ullah, the Speaker with God, and Abraham as the Khalil ullah, or Friend of God.

CHRISTIANS in British India, are in many sects, and of many races, but there have been converts to this creed since the earliest days of the christian era. Arabia seems to have early adopted the christian faith. The Eastern Churches believe that St. Thomas preached in Arabia Felix and Socotra on his way to India, where he suffered martyrdom, about A. D. 50, and it is said that the rudiments of the religion of the cross were first implanted amongst the Himyarites, by St. Bartholomew. It is also recorded that St. Pantenus was sent by Demetrius, Bishop of Alexandria, to preach in Arabia Felix, and there he found traces of St. Bartholomew; amongst others, a copy of St. Matthew's Gospel, written in the Hebrew character, which he brought away with him to Alexandria. In the reign of Tobba, son of Hassan, from A. D. 297 to A. D. 320, Christianity became more generally known in Arabia, and extended to Abyssinia, where the people, though surrounded by Mahomedan and Pagan tribes, continue Christians till the presant day. Subsequently, in A. D. 326, Frumentius was elected by Athanasius, Bishop of the Indians, where he contributed much to the propagation of the christian religion, but whether Arabia or Abyssinia was the scene of his labours, is disputed. In A. D. 342, Theophilus Indus, a native of Diu, obtained permission to build churches in Yemen, one of which was erected in Aden.—(*Playfair.*) St. Thomas and Bartholomew are said in tradition to have preached in the East : St. Thomas in India, where he is believed to have become a martyr near Madras, at the Little Mount, half way between St. Thomé or Mylapoor and St. Thomas' Mount. Cosmas Indicopleustes, who travelled in India A.D ,
and afterwards became a monk, mentions the presence of christians.

Alfred the Great, in A. D.883, sent Sighelm as an ambassador to the christians at Mylapur. (*James A. St. John History of the Four Conquests of England.*)

The estimated numbers of christians in India in 1868, is a million and a quarter. In China about 800,000.

	Europeans and Americans.	Mixed.	Natives.
The Army......... .	58,000	...	
Municipal Calcutta.	12,000	11,036	
Suburbs, do	8,000	1,000	
Bombay City........	8,415	1,891	
Madras...............	3,000	12,000	
N. W. Provinces....	22,692	5,069	
Punjab............ ..	17,938	1,032	Above one million.
Oudh...................	5,446	985	
Central Provinces....	5,409	757	
British Burmah	1,547	3,500	
Mysore.................	4,132	2,863	
Coorg..................	.103	656	
Berar..................	903	...	
Total...	1,47,585	40,789	

The Roman Catholic christians are estimated to amount to 936,419, over whom are 814 priests, and 18 Vicar Apostolics. There are 414,096 christians in the south of the peninsula. In Travancore, in the London Mission, 22.688, Church Mission 6,549, Romanists, 230,000. Many of the Garo and Khassya have been won over. The Gond in Central India have become moved by christian missionaries. Of the Kol, 12,000 have become christians, and the four millions of aboriginal tribes are supposed by Colonel Dalton to be likely to be moved in a few generations. There were in 1867, in the Tenasserim, Martaban and Pegu Provinces, about 17,000 native communicants, chiefly Karen. Further east in China, a great political and religious movement occurred about the middle of the nineteenth century, in which many Chinese adopted a belief in the Lord of Heaven. In British India, amongst the hindoo races, the educational efforts of the British Indian Government were on the largest scale, but christianity has not, hitherto, much benefited by them. Their over education has unspiritualized the educational efforts of missionaries, and created a desire for mere worldly advancement, which has killed in some hopeful cases the inner life. Throughout the south and east of Asia, there may not, in the latter third of the nineteenth century, be four millions of christians, amongst about six hundred millions of buddhist hindus, mahomedans and shamanists. And these three millions are of every race and scattered in small parties.

CHRISTIE, Dr. Turnbull, of the Madras Medical Service, who gave the first account of porcelain clay at Mangalore, in Bl. As. Trans, 1841, vol. X. part 2, 967. Also wrote on the Mineralogy and Geology of the Southern Mahratta Country, *Mad. Lit. Trans. vol. IV.* 135, 452, which was reprinted from Edin. Phil. Jl. Instructions for meteorologists; Observations on and plan for, new instruments. Ibid, vol. II. 41. 70. Observations on the Geology of the Hyderabad country. Ibid, 1827, 79. See Memoir of, in Edin. Phil. Jl. vol. XV. 165. and Biographical notice of, in Mad. Lit. Trans. vol. XV. 150. —*Dr. Buist's Catalogue.*

CHRISTIE, Colonel John, a distinguished soldier of the Bengal Army, who gave his name to Christie's horse. He entered the service in 1823, attained the rank of Colonel in 1854, in 1856 was appointed Aid-de-Camp to the Queen, in 1857 and 1858 he commanded the Dinapore Division of the Army of Bengal, and afterwards the Brigades at Barrackpore and Berhampore. Few officers have seen more continuous service in the field. In 1826, he served at the seige and capture of Bhurtpore, for which he received a medal. He served under Lord Keane and General Nott in the two Afghan campaigns, in the command of the 1st Cavalry of Shah Shooja's horse, which he himself had raised. He was present at the occupation of Larkhana, Candahar, and pursuit of the sirdars of Candahar. He was present also at the storm and capture of Ghuzni and the capture of Kabul in 1839, and received a medal and the 3rd class Durani Order, and in 1840, accompanied Major Outram in pursuit of Dost Mahomed Khan across the Hindu Kosh to Bamean. He subsequently served with the Candahar Force under General Nott, and commanded the Cavalry on the 28th August 1842, when the enemy was repulsed in an attack on the Rear Guard at Karez-i-Osman Khan. He was present also in the action at Gwine, when he captured one of the enemy's guns, and was an actor in all the subsequent operations leading to the re-occupation of Ghuzni and Kabul: the storm and capture of Istalif, for which he received a medal, and in the retirement from Afghanistan through the Khoad, Kabul and Kybur passes. He was present also in the Gwalior campaign, and at the battle of Puniar, for which he received a Bronze Star. He served, also, with the Army of the Sutlej, and was present at the actions of Mudki, Ferozshahr and Sabraon, for which he received a medal, two clasps, and promotion to the rank of Brevet Major. He subsequently served throughout the Punjab campaign, including the passage of the Chenab, the battles of Chilianwala and Guzerat, and joined in the pursuit of the Sikhs and Afghans by the force under Major General Sir Walter Gilbert, receiving a medal, clasp and the rank of lieutenant colonel. It was thus seen that he had a continuous field service of 21 years, during which he commanded a regiment of cavalry in four campaigns for a period of 17 years, embracing an era, wherein took place the most important military events recorded in Indian history. In the amount of service and the efficient and creditable performance of his duty, he was not surpassed by any soldier of the day. He was unrivalled in his tact and management of the native cavalry under his command, and no regiment of cavalry, regular or irregular, excelled his soldiers in discipline, and by few was it equalled. As the crowning triumphs of this soldier, distinguished through a long career, by his power to control and bend to his views the various races who serve in our ranks in the Empire of India, when, in 1859, discontent and the mutinous spirit occurred among the European soldiery, Colonel Christie was employed to bring them in order at Berhampore.

CHRISTMAS FLOWER. Eng. Chrysanthemum indicum. The common Gool Dawadee, of which several varieties grow all over India.

CHRISTMAS ISLAND, South of Java, is of a square form, about nine miles each way. The body of the island is in Lat. 10° 34′ South, Long. 105° 33′ East.

CHRISTOLEA CRASSIFOLIA. The Shangsho of Ladak, grows from 10,000 to 15,000 feet in Ladak; is browsed by goats, but little by the yak.

CHRISTOPHER, Captain W. of the Indian Navy, died from a cannon-shot, received before Mooltan in 1849. Author of Memoir of the Maldive Islands, in Bom. Geo. Trans., reprint, Vol. I, 54. Account of Adam's bridge and Ramiseram temple, in Ceylon Bom. Geo. Trans. 1844-1846, Vol. VII, 130. Account of Haine's river and the adjoining country. Ibid, Vol. VI, 375. On a voyage up the Indus and Sutlej. Ibid, Vol. VIII, 144. Journal of ascent up the river Chenab. Ibid, 236.—*See Dr. Buist's Catalogue.*

CHROME IRON ORE, or chromate of iron, is a compound of oxide of chrome with protoxide of iron. It is met with massive, and in octahedral crystals of a blackish colour, and imperfect metallic lustre. It is found in Unst in Shetland, France, Baltimore in America, and the Salem district in the Madras Presidency. At the Madras Exhibition of 1855, a very fine sample of chrome ore weighing about 5 cwt. was exhibited by Mr. Fisher of Salem. The ore has been so largely exported to England as to have lowered the commercial value of the mineral. Very good samples were also exhibited at the Madras Exhibition of 1859, from Salem, Vizianagrum and Bangalore, but as yet nothing has been done in India, to turn this mineral to useful account on a large scale from the want of proper appliances. The consumption of this substance in Europe is in the manufacture of bichromate of potash for dyes, the chromeates of lead for painting, and chromic acid for coloring pottery, porcelain and glass. The supply of Chrome Ore in Salem is said to be abundant, but the raw material will not pay expense of freight. The chrome ores used in England are obtained from the Shetland island and Styria where they are abundant, and as the quantity required for manufacturing purposes is not large, the raw ores of India could never be brought into the English market so as to prove remunerative.—*M. E. J. R.*

CHRONOLOGICAL EPOCHS at the birth of Christ, and Epochs of subsequent events referred to A.D. 0. complete.

Afte. C.	Reform of the Calendar in England, 29th March 1752	1752
	Gregorian reformation of the Calendar, 4th October 1582	1582
	Æra of Dioclesian or of the Martyrs, year begins 29th August ..	286
	Indian Æra of Salivahana, begins with the Hindu Solar year... ...	78
	Indiction	3
	Epoch of the Indian Cycle of 90 years or Grahaparivrithi, begins with the Hindu Solar year...	24
	Iberian or Spanish, its year begins with the Julian year..	38
	Cesarian of Antioch, year begins in August...	48
	Indian Æra of Vicramaditya, begins with the Hindu Luni-Solar year... ...	57
	2nd of the Seleucidæ, year begins 1st September, but according to the Arabs 1st October...	312
	Æra of Nabonassaar, began 26th February...	746
	Building of Rome, or Roman Æra ...	752
	Olympiads, year begins 1st July ...	776
	Indian Æra of Parasurama, begins 7th August 3537 of the Julian period ...	1176
	Indian Æra of the Caliyug, begins Friday 18th February 1612, Julian period ...	1301
	For Epochs before Christ.	
R ed to supposed h of Creation.	Epoch of Creation according to Port Royal writers	4004
	Epoch of Creation according to Hutton, (authority or calculation not known.)	4007
	Julian period	4713
	Ecclesiastical of Antioch ...	5492
	Æra of Alexandria	5502
	Æra of Constantinople, begins Civil 1st Sept., Ecclesiastical 21st March ...	5508
	For Epochs after Christ.	
	Year of Christ complete, according to Dionysius Exignus..	0

The only cycle in use among the Turanian races, in old India and Thibet, was that of 60 years, and in the form 12 x 5. In the Chaldee chronology, a cycle of 60 x 10 years was employed (10 Sossi being equivalent to one Saros.) and Josephus styled the Epoch of 600 years which grew out of it, the great patriarchal year. The earliest Chinese chronology rests upon a conventional basis peculiar to itself, that of limiting the lunar year of a cycle of 600 years which is common to the whole of Northern Asia and the Chaldeans and probably (as it is also met with in India) to the Bactrians also: this basis is historical. The communication took place before the Chaldees invented the cycle of 600 years. The Chinese observation is based upon the use of the Babylonian. (*Bunsen.*) The beginning and end of the day has varied. Among the Greeks and Etruscans the day began at noon, among the Romans as with British at midnight, among the Persians at sunrise, but among the Jews and Egyptians, as now with hindus, mahomedans and parsees. it began at sunset. —*Sharpe's History of Egypt, Vol. I, p. 58. Captain Edward Warren's kala Sankahlita.*

Bunsen's Egypt. Servius in Æneid, V. 738. *Genesis Chapter I.*

CHRYSANTHEMUM a genus of plants belonging to the natural order *Compositæ* and the sub-order *Corymbiferæ* or *Asteraceæ.* The species are very numerous in the temperate parts of the earth.—*Eng. Cyc. page* 1058.

CHRYSANTHEMUM PERUVIANUM turns continually towards the sun. As a general rule, however, all plants turn towards the sun. Hypochæris radicata and Apirgia autumnalis are seen in meadows turning towards the sun, and species of Melampyrum and Narcissus turn similarly.—*Winslow on Light.*

CHRYSANTHEMUM ROXBURGHII. DESF.

C. seneccioides,	*Dun.*	Pyrethrum Indicum.	*Roxb.*
Matricaria oleracea,	*Buch.*	Pinardia Roxburghii.	*Lasson.*
Glebionis Roxburghii,	*Cass.*		

Christmas flower,	ENG.	Chamanti,	TEL.
Gul Dawadi,	HIND.	Bagaur of	CHENAB.
Gendi,	„	Kalzang of	LADAK.

The name is from two Greek words, chrysos gold, and anthos, flower. The plants commence flowering generally in November, and continue for several months. The colours are mostly yellow, orange, and a purplish colour mixed with white. The beautiful yellow fragrant flowers of this plant, are made into garlands, and offered at the shrines of Vishnoo and Siva If grown in pots they require a good rich soil, to which pounded bricks should be added, and a little lime to preserve the foliage from mildew, to which they are subject. They are commonly cultivated in gardens in the plains of India. in Kashmeer, Upper Chenab to 9.200 feet, and in Ladak at 11,300 feet. Masson mentions a chrysanthemum at Kabul.—*Ainslie. Dr. J.L. Stewart.* See Flowers.

CHRYSANTHEMUM SINENSE is extensively cultivated in European gardens and is the Chinese gardener's favourite winter flower, although it is generally past its full beauty at the Chinese new year. There is no other plant which he takes so much pains with or which he cultivates so well. His camellias, azaleas, and roses are well grown and well bloomed : but in all these, the people of Britain excel him. In the cultivation of the chrysanthemum, however, he stands unrivalled. In China, as in England, the chrysanthemum flowers during the winter months. When in bloom, it is in great request among the people, and is used in the decoration of court-yards, halls, and temples. It is every body's plant, and blooms alike in the garden of the lowly Chinese cottager as in that of the red-buttoned mandarin.—*Eng. Cyc. page* 1052. *Fortune's Tea Districts, p.* 125.

CHRYSE. "The gold-land" of the Periplus is apparently Pegu and thereabouts, the Suvarna Bhumi or Golden Land of the old Indian buddhists. Sonaparanta, a term of like meaning, is still the sacred or classical term for the central territories of Ava.—*Periplus of the Erythræansea. Yule Cathay,* I., *p.* cxiv.

CHRYSOBALANUS ICACO. ROSACEÆ. This the cocoa-palm tree of the West Indies, has been lately introduced into India.

CHRYSOBERYL. See Beryl. C. Corundum. Gem.

CHRYSOLITE. See Gem.

CHRYSOMITRIS SPINUS. *Carduelis spinus.* 'Siskin.' of Europe, Siberia, Japan ; is a winter visitant chiefly in Britain, breeding in the far north.

CARYSOPHYLLUM ACUMINATUM.

Hali mara.	CAN.	Tursee phul.	MAHR,
Star apple.	ENG.	Tarsee.	
Pita-kara.	HIND		

This tree, one of the Sapotaceæ, grows to a large size, thirty feet or more. In Canara and Sunda, it is very common in the jungles near the ghats above, particularly to the south, and reaches a great height. Dr. Gibson heard of it as existing in some of the ghat jungles of the Southern Konkan, but had never seen it except in the Upper Canara and Sunda forests where it is rather common. There are some trees in the Residency garden at Hyderabad. The wood seems straight and good, but the tree is chiefly noticeable from the gutta-percha-like incrustation common on the fruit. Fruit about the size of a large crab-apple, ripens in October and is edible.—*Dr. Gibson, Dr. Riddell.*

CHRYSOPHYLLUM ROXBURGHII, *G. Don.*

C. acuminatum, *Roxb. Fl. Ind., p.* 345.	Lawooloo-gass, SINGH.

Not uncommon in the warmer parts of the island of Ceylon.—*Thw. En. Pl. Zeyl.* III. *p.* 174.

CHRYSOPOGON ACICULARIS. *Host.*

Andropogon acicularis. *Retz. Roxb. Rheede.*		Rhaphis trivalvis.	*Lour.*
Gnung-myeet.	BURM	Soorwala.	HIND.
Spear grass.		Lampa.	„
Needle-like andropogon.	„	Shunini.	SANS.
Chora Kanta.	HIND.	Katl chettu, also Katle gaddi.	TEL.

Abundant in barren land, troublesome to the feet of those who walk among it, eaten by cattle when other grass is not to be had. The common names of this variety are "lampa" and "chora-kanta." A longer variety, known solely as "soorwul" is an excellent grass for cattle. C. acicularis is the most common grass on the Tenasserim coast; its seeds stick in the stockings, and produce a disagreeable itching.—*Mason. Genl. Med. Top. p.* 176.

CHRYSOPRASE. From chrusos, golden or beautiful, and urason, leek, is a rare pale apple-green calcedony, which owes its colour to the presence of the metal nickel. It is found in many parts of India, in upper Silesia and Vermont.

CHRYSOPTILUS. Green wood-peckers. See Picidæ.

CHRYSORRHŒA, or "Golden Stream" of the ancient geographers, is the Barrada river of Damascus, which, as soon as it issues from the cleft in the mountains, is immediately divided into three smaller courses. The largest, which is the middle one, runs directly to the city, and is there distributed to the different public fountains, baths, and cisterns, whilst the other two branching off right and left, contribute mainly to the luxuriant vegetation which adorns the environs. South-east of the city their scattered waters unite again into one channel, and after flowing towards the eastern hills for two or three hours, are finally lost in a marsh which, from one side view, appears like a small lake. Well may Damascus be called El Sham-i-Shereef, the noble and beautiful."—*Robinson's Travels, Vol. II., p.* 115.

CHU, or Chu-ma, or Tchou-ma. CHIN. Bœhmeria nivea. China-grass.

CHU. HIND. Euphorbia royleana, Gangi-Chu, is a species of Euphorbia.

CHUA. HIND. Rosa Webbiana.

CHUA in Kulu, an amaranth cultivated for its grain.

CHUAL. HIND. Staphylea emodi, also Euonymus fimbricata.

CHUBIRI. MAL. Chillies.

CHUBREI. HIND. Dactyloctenium Ægyptiacum, also Eleusine flagellifera.

CHUBRUNG-NATH. Doomnes is the pass from this place to Badrinath. See Kunawer.

CHUCH. HIND. Juniperus communis.

CHUCH. A valley near Attock on the Indus, where gold is washed.

CHUCH. TURK. A thorny shrub in Balkh, grazed by camels.

CHUCHELEERA of the Punjab, is a mixture of dye lichens employed for dyeing, contains Parmelia kamtschadalis, Parmelia perlata, and its variety sorediata, Usnea florida, Ramalina calicaris and fragments of Physica leucomela. See Borrera; Chulchilhera.

CHUCHI. HIND. Polygonum polystachyum, also Rheum emodi.

CHUCHO, leaves used by the Jakun for thatch.

CHUCKLER. ANGLO-TAM. From Tamul chakili, a shoe-maker, a worker in leather.

CHUCKOONDA. Beta vulgaris; Common beet.

CHUCKRALLA. A district in the Punjab which yields gold.

CHUCKRANKETUM, also called Moodra Dharanum, amongst Vaishnava hindus, the rite of stamping with a hot iron, the emblem of Vishnu on the arm of a Vaishnava lad or man. It is equivalent to the confirmation of episcopal christians.

CHUDRON CHANDANA, also Malayaja. SANS. Sandalwood.

CHUDRA KANTA KARI. BENG. Solanum Jacquini, *Willd.*

CHUEN-SEE, taking of, 7th January 1841.

CHUGHAR, of Kohat, moist, cool land.

CHUGU. HIND. Plectranthus rugosus.

CHUHA. HIND. A rat. Kan ka-Chuha. "The large-eared rat" of Kaghan, the marmot or Arctomys.

CHUHA, a people occupying a district of same name, on the river Hub, which falls into the sea at Cape Monze. They are said to be of Samrah or of Brahui origin.

CHUHARA. HIND. Apricot.

CHUHARA. HIND. Phœnix dactylifera.

CHUH-HWANG. CHIN. Tabasheer.

CHUHRA. HIND. The lowest description of village servants, the same as the Bhangi. Halal-khor-Mehtar, &c.—*Wilson.*

CHUI. BENG. Piper chaba.

CHUI. The province of Ili embraces Dzungaria and Eastern Turkestan.

CHUI, of Chamba and Pangi, Pyrus malus, apple tree.

CHUI SHUPA. HIND. Juniperus communis.

CHUJ. HIND. Fraxinus xanthoxylloides.

CHUK. HIND. A plantation reserve. See Rakh.

CHUKA. GUZ. Rice.

CHUKA. MAL. Vinegar. Acetic acid.

CHUKA. HIND. Sida cordifolia.

CHUKAIKA, AMBASHTA, AMILKA. SANS. Oxalis corniculata.

CHUKA KE BINJ. Rumex acetosa. *Sorrel.* The seed is considered cooling and astringent. It is cultivated in Ajmeer.—*Gen. Med. Top. p.* 130.

CHUKAN PALLAM. TAM. Bryonia.

CHUKA-TIPUTTI. BENG. Oxalis corniculata.

CHUKA-ZUM. A chain bridge stretched over the Tehintchieu river, a short distance above the castle of Chuka.—*Turner's Embassy p.* 54.

CHUKHA. HIND. Oxalis corniculata.

CHE-KIANG, or Pearl River, disembogues after a course of 500 miles in length. As it passes Canton, it divides into two branches, which, embracing the island of Honan and the Flat islands, re unite below the Flat islands to form the true Pearl river, which flows on in a broad stream, receives many tributaries, and finally empties itself by many mouths into the sea, below the Bogue Forts. It drains 150,000 square miles. The channels are narrow, but most of them are navigable by boats to all the large towns in the provinces of Kwang-tung and Kiangsi.

CHUKILI. TAM. A shoe-maker. See Chamar, Chuckler.

CHUKKADUMPA, TEL. Habenaria platyphylla, *Spreng.*

CHUKKA KADA. Bigelowia lasiocarpa, *W. & A.*

CHUKKA KURA. TEL. Rumex vesicarius, *L*

CHUKKALI CHETTU. Epicarpurus spinosa, *R.*

CHUKKAR, a Sikh weapon, resembling a quoit in size and shape, thrown from the finger with a rotatory motion.—*Herklots.*

CHUKMAK. GUZ. HIND. Flints ; properly chaqmaq.

CHUKMA, a race occupying the Toonia, Joom mahals, a forest tract in the hills of the Chittagong district, along with Mug, Reang and Tipperah races, all more or less nomadic. Some one of these races till lately performed human sacrifices annually, and in the year 1852, several were tried for murder by sacrificing. The place of sacrifice was a cleared district in the jungle and staked round with bamboos about six feet high. The sacrificial pole was a "Phula bans," bamboo, scraped and stripped at the edges, the hanging strips giving a rude notion of ornament. During the celebration of these sacrifices at Agartollah, a gun is fired every evening at sunset, when every person hurries to his home.

CHUKRI. HIND. Rheum emodi, also R. palmatum.

CHUKRI. See Kabul.

CHUKOTARA. HIND. DUK. Citrus decumana.

CHUKRA. SANS. A round weapon, from chak, to return a blow, to rebound.

CHUKUDDI PATTA. TEL. Cassia absus, *Linn.*

CHUKUL MORA. CAN. Acacia elata, *Linn.*

CHULA. HIND. Euphorbia Royleana.

CHULA, a fire grate, made of mud or bricks, a fireplace, a hearth, and equivalent to the "hearth" of the English, as a home. A native of India wishing to express his poverty would say there was no fire in the hearth or to indicate the number of his divided family would observe that three fireplaces are burning.

CHULA or Chulah. HIND. A tribe of Taga in Baghpat.

CHULAI. HIND. Spinacia tetrandra ; also Amarantus polygamus, *Linn.*

CHULAS. There are intermixed races in the Bunnu valley and may be noticed the Durdu in Giljet and Chulas.

CHULCHILHERA, a lichen of the Himalaya, the *Borrera ashneh* of Royle ; with ammonia it gives a reddish brown colouring matter, and is used accordingly as a dye stuff. Dr. O'Shaughnessy examined this and several other Indian lichens, but without success in the production of any valuable colour.—*O'Shaughnessy, page* 672.

CHULI. A whirlpool : in the stream of the Chumbul near Berolli, the whirlpools and eddies have given a sacred character to it, like the Nerbudda, at the whirlpools of the great god *Chuli Maheswar.* A multitude of round stones are taken out of these vortices, when they have been rounded by attrition into a perfectly orbicular form, are consecrated, and smeared with red lead, and are then called Bhyru, the god of war, the eldest son of Siva. Those of the round stones of the Nerbudda whirlpools are called Ban-Lang or whirlpool lingam, and "Rori" at the temple of Berolli. See Binlang. *Tod's Travels.*

CHULI. HIND. Prunus Armeniaca, also Prunus padus, also Purslane.

CHULI. BENG. HIND. Villarsia Indica, *Vent.*

CHULA. A name given to mahomedans in Malabar.—*Wilson.*

CHULIA, amongst the Malays, a native of Western India. The Chulia and Kling comprehend the traders and settlers, both mahomedans and hindus, from the Coromandel coast. These names have been given to them by the Malays from the earliest times of the ancient commercial intercourse subsisting between this part of Asia and India. Kling is a corruption from Teling or Telinga ; Chulia may be derived from the ancient Chola kingdom of the peninsula.—*Newbold's British Settlements, Vol.* I. *p.* 8.

CHULU. HIND. of Himalaya, Armeniaca vulgaris, *Lam.* ; the Apricot.

CHUM. HIND. Euphorbia Royleana ; also Morus serrata ; also, Fraxinus xanthoxylloides.

CHUMANG, a low or outcast race in the non-Bhot districts of Kunawar, with dark skins. The people of the lower hills call them Koli, and the Rampur people, Chumar. They till the soil and weave.

CHUMAR. A scattered race in India. They are said on the authority of the Padma, Varaha, and Brahmavaivartta Puranas, to be descended from a mullah or boatman, and a Chundal woman. The Chumar race is generally said to be subdivided into seven classes. Jatooa Kaean, Kooril, Jyswara, Jhoosea, Azimgurhea, or Birherea, and Koree or Korchumra. These seven do not eat together nor intermarry. The Jatooa are chief in the North-West. The Delhi Territory, Rohilcund, and the Upper, and part of Central Doab are their seats. The Kaean are in Bundelcund and Saugor. The Kooril occupy the greater part of the Central and Lower Doab. The Jyswara meet them in the neighbourhood of Allahabad, and extend through Jounpoor, Mirzapoor and Benares, to the neighbourhood of Sydpoor Bhitree, where they are met by the Jhoosea, who occupy Ghazeepoor and Behar. The Azimgurhea have their seats in Azimgurh and Goruckpoor; and the Koree or Korchumra in Oudh. The last are generally engaged in the occupation of weaving.

Other names are mentioned besides these seven as the Jatlote of Rohilcund; the Ahurwar, Sukurwar and Dohur, of Central Doab but as these latter avow some connection with the Kooril, they may perhaps be included in that tribe. In Behar we meet also with sub-divisions of Gureya, Magahi, Dukshinia, Canoujea as well as the Jhoosea and Jyswara abovementioned; all tending to show that the division into seven clans is imaginary.

The Dohur are mentioned in "Steele's Summary," p. 128, as existing in the Decan along with Kutnee (coblers) and Duphgurs (Dubgar maker of oil bottles); but he does not include them amongst Chumars, of whom he enumerates the following classes,—Sultunger, Marat'he, Paradosh, Purdesce, Hunalbhutel, Dubalee, Woje, Chour.

Chumars are reputed to be a dark race, and a fair Chumar is said to be as rare an object as a black Brahmin.

Kurea Brahmin gor Chumar.
In ke sat'h nu ootriye par.

That is go not in the same boat with a black Brahmin or a white Chumar, both objects being considered of evil omen. Many of the Chumar of Central India have joined the reformed Sat-nami sect. The Chumar of Hindustan, in respect to members and avocations are in the same position as the pariahs of the south of the peninsula.—*Elliot.*

CHUMARA. See Chaldeo.

CHUMAYAN, a class of Gujars, occupying twelve villages in Paniput Bangur.—*Elliot.*

CHUMBA. HIND. Artemisia sacrorum.

CHUMBA. See Chamba. Kohistan.

CHUMBA-GUDDEE, a race who dwell in the Chumba hills, in the Himalaya. They say they are Rajputs and of the guddee-jat. They are somewhat short, but strong and cleanly in their habits. They are sharp and able to impose on their less knowing neighbours. Most of the witch finders are of the Chumba-guddee race, and the race may always be known by their peculiar conical caps with lappets to turn down over their ears like an English travelling cap. When Europeans made their first appearance in the Kangra valley, these men had very slight notions of caste, and would eat or drink anything the Europeans gave them, but since their contact with the natives of the plains they have become as bigoted as any hindu.

CHUMBARA. MAR. Premna tomentosa.

CHUMBI SAG. HIND. Amarantus polygamus.

CHUMBO. PORT. Lead.

CHUMBRAMBAUKAM, a great tank about forty miles west of Madras.

CHUMBRANUK. A single valve of the muscle shell without the mollusc, used in Ajmere as an aphrodisiac.—*Gen. Med. Top.*, p. 132.

CHUMBUL, a river tributary to the Jumna. It rises in Malwah. in lat 22° 26′, and lon. 75° 45′, eight or nine miles S. W. from Mhow, which is 2,019 feet above the sea. It rises on the cluster called Janapava. It runs North, 105 m.; N. W., 6 m.; S. E., 10 m.; N. E., 23 m.; S. W. 25 m; North to junction with Kalee Sind; N. E., 145 m.; S. E. 78 m. to Jumna: length, 570 m., described in a form nearly semi-circular, the diameter being only 30 m. It receives the Chumbela 70; Seepra, 120; Parbutty, 220; Kallee Sinde, 225; Banas, 320; Chota Kallee Sinde, 104 m. About 56,000 square miles drained. It does not appear to be used for navigation, which is probably incompatible with the average declivity of its bed (2 feet 5 in. per mile), and still more so with the general rugged and rocky character of its channel. Its average volume of water is so considerable, that at its junction it has been known to raise the united stream seven or eight feet in 12 hours. The nominal source of the Chumbul is in a part of the Vindhya range, nine miles south-west of the cantonment of Mhow; but this part of the river is dry in the hot season, during which it owes its waters to other tributary streams. The current of this river is in most parts gentle, its bed rocky, and its course through Malwa much obstructed by shallows; but, after entering Harrowtee by an opening in the Mokundra range, it becomes a fine and deep stream.

The course of the Chumbul, not reckoning the minor sinuaties, is upwards of five hundred miles, and along its banks specimens of nearly every race now existing in India may be found: Sondi, Chunderawut, Seesodia, Hara, Gore, Jadoon, Sikerwal, Goojur, Jat Tuar, Chohan, Bhadoria, Kutchwaha, Sengar, Boondela, each in associations of various magnitudes, from the substantive state to the little republic communes between the Chumbul and Cohari. The Chumbul runs through the territories of Sindiah and Holcar, viz., Gwalior and Indore, and runs near Kotah.—*Tod's Rajasthan, Vol.* I., *p.* 16. *Rep. Royal. Com.*

CHUMDUNKIARI, a town in Manbhom.

CHUMDUI. Hind., or **CHAMDUI.** Hind. Santalum album, *Linn.*

CHUMERERI. A lake in Ladak. See Choomooriri.

CHUMGA. A Kafir tribe. See Kafiristan, Kush.

CHUM GUDHUL. Hind. One of the Cheiroptera, the flying-fox of Europeans in India.

CHUMIAH. A race to the north and and east of Chittagong, dwelling between the Kuki and the plains. The Chumiah and the Kuki are described as having flat noses, small eyes, and broad round faces, and to differ from the Naga race both in appearance and customs.

CHUMLA. A valley near the Bunair or Bunnoor country in Affghanistan. The valley and the central plain of the Eusufzai are commanded by hills that descend from the Hindoo Coosh.

CHUMPA, properly Champa or Champaka, the Michelia champaka, *Linn.* The flower of the Champa is one of the five with which Kama, the hindoo god of love, tips the arrows he uses. See Kama.

CHUMPA NUTIA, (Varval.) Beng. Amarantus polygamus.

CHUMPOUTE. The berry of a small plant, brought to Ajmeer via Pali, used in perfumes and also in medicine: one seer is sold for one rupee.—*Gen. Med. Top.*, *p.* 131.

CHUMURTI. A Chinese district bordering on Ladak.

CHUMWA. A tribe in Assam, exempt from manual labour.—*Wilson.*

CHUNA. Beng. Cicer arietinum. *Lin.* Gram. Through the Italian Cece and the French Chicker, comes its English name "chick-pea." The term "arietinum" is derived from the resemblance of the seed to a ram's head. The word used by Europeans in India is gram, or Bengal gram, of which the origin has been much disputed, and is, it is believed, quite unknown.—*Elliot.*

CHUNAM. Anglo-Tamil.

Chunna.	Guz. Hind.	Sunamu.	Tel.
Chunnam.	,,	Choonnoo.	,,
Chunambu.	Tam.		

In oriental arts, a term applied to quicklime, made from nodular limestone, from limestone rocks, from marbles, and from calcined shells; also applied to plaster. The plaster of Madras has long been famed for its marble like polish, and is prepared either from shells or lime-stones. The shells generally used at Madras are both recent and fossil, but the latter of recent species, found in extensive beds, a few feet below the surface on the banks of the Pulicat Lake, and other low marshy places on the sea coast, which are covered by the sea at high-water. The shells are calcined with charcoal, one parah of charcoal being allowed to every two parahs of chunam. The kilns generally used are calculated to hold altogether 60 parahs, that is 40 of shells and 20 of charcoal. A small arch, 1 foot 3 inches in height, the same in breadth, and raised 5 feet above the surface of the ground, runs longitudinally through the kiln; the top of this arch is a grating of brick on edge, which is partially covered with broken tiles, so that neither the shells nor charcoal can drop through them, but small apertures are left for the escape of the ashes and for the necessary circulation of air. Over this bed a layer of charcoal is first placed throughout, about 3 inches in thickness, and fire applied: when sufficiently kindled, the mixed shells and charcoal are laid in small heaps of not more than ⅛ of a parah each at about 1 foot 6 inches apart, and when the fire has been communicated to them, the intermediate spaces must be filled up with more shells and charcoal to a level, and when the fire has thoroughly extended to them also, another row is to be laid in a heap upon this mass as was done in the first instance, and in the subsequent operations are to be repeated in the same manner until the kiln is filled. The transverse arches are to promote the requisite current of air, and the windward ones are invariably to be kept open, whilst those on the opposite side must be closed. The kilns used at Madras are built of brick or clay, and require renewal every three years. The shells will be sufficiently calcined in 12 hours, and 24 more are required to cool them, so as to admit of their being moved and the charcoal sifted from them. It is found that chunam thus prepared and slaked to a powder is increased to double its original bulk when in the form of shells. The following is the method of plastering with chunam at Madras. If for *one coat*, the plaster is composed of one part of chunam and one and a half of river sand thoroughly mixed and well beaten up with water. This operation is usually performed by women, who stand round a small stone trough prepared for the purpose, into which the ingredients are thrown and gradually moistened with water, as the process of mixing proceeds. The women use wooden sticks shod like a rice pounder. The plaster, when mixed, is taken out of the troughs and made into conical heaps, where it remains till required, and may be kept without injury for several mouths ; but when left for any time, a small cistern or hollow is made at the top of the heap into which water is occasionally poured. Before applying the plaster the wall is trimmed with a trowel and swept perfectly clean and then slightly sprinkled with water. The wall being ready, the plaster is put into small wooden boxes at convenient places among the bricklayers, by whom it is mixed up with jaggery water, $\frac{3}{4}$lb. of jaggery or coarse sugar being allowed to every parah of quick lime, until it is brought to the required consistency : it is then laid on with a trowel above half an inch thick, and levelled with a flat wooden rule, being afterwards smoothed with a wooden rubber till it acquires an even surface. During the process of rubbing, the plaster is occasionally sprinkled with a little pure white lime mixed with water to give it a hard surface. If for *two coats* of chunam, the first coat is applied, as already described, with the exception that the surface is left rough and no pure lime is applied during the process of rubbing. A day or two after the first coat is applied and while moist, the second is laid on. The plaster used for the second coat consists of three parts of lime and one of white sand. These are mixed as before, and afterwards ground by women on a flat stone with a small stone roller till they are reduced to a fine paste. This is laid on a wooden rubber and applied with care over the first coat about $\frac{1}{8}$ of an inch thick. It is then rubbed down perfectly smooth with a small trowel, and afterwards polished with a crystal or smooth stone rubber, and as soon as it has acquired a fine polish, a little very fine potstone (Ballapum) powder is sprinkled on it to increase the whiteness and polish, and the polishing continued. The second coat ought to be applied and finished in one day, for it usually hardens too much during the night to be polished the following day, except in damp weather. The practice is to continue polishing the plaster until it is quite dry, and a number of bricklayers are employed in order that it may be well polished the first day. Moisture continues to exude from the plaster for some days after it is completed : this must be carefully wiped off with a soft cloth, and the wall kept perfectly dry till the moisture entirely ceases. For *three coats* of chunam, the first coat is as above, but it is left a fortnight or three weeks to dry before the second coat is applied. The plaster for the second coat consists of one part of lime and one of fine river sand freed from the coarser particles and clay by sifting. It is well mixed and beaten up in a clean trough, and applied over the first coat about $\frac{1}{4}$ of an inch in thickness, the first being previously moistened with a little water. It is next rubbed down in the same manner as the first coat, but acquires a much smoother surface, the plaster being of a finer quality. A day or two afterwards, when it has had time to dry, the third coat is applied. It consists of 4 parts of lime and one of fine white sand. These, after being well mixed, are reduced by grinding to a very fine paste quite free from grittiness. This is put into a large earthen jar of the size nearly of half a hogshead, and mixed with the white of eggs, sour-milk (Tyre) and ghee, in the proportion of 12 eggs, $1\frac{1}{2}$ measures of "tyre," and a $\frac{1}{2}$ lb. of ghee to every parah of plaster. These are all thoroughly mixed and rubbed between the hands till the ingredients are thoroughly incorporated and the composition reduced to an uniform consistent paste, a little thicker than cream, and perfectly free from grittiness. The plaster is now fit for use, and is put on with a wooden rubber about $\frac{5}{8}$ of an inch thick, and gently rubbed till it becomes perfectly smooth. Immediately after this, another coat of still finer plaster is applied, consisting of pure lime ground to a very fine powder, and afterwards mixed with water in a clean tub, till it is of the consistency of cream. This is put on about $\frac{1}{16}$ of an inch thick with a brush, and rubbed gently with a small trowel till it acquires a slight degree of hardness. It is then rubbed with a rock crystal or stone rubber till a beautiful polish is produced, not forgetting to sprinkle the wall with fine potstone (Ballapum) powder during the process of polishing. If the plaster is not entirely dry on the second morning, the operation of polishing ought to be continued until it is quite dry. The moisture, as above directed, must be carefully wiped off, and the wall kept quite dry till all appearence of moisture cease The result of the process depends chiefly on the plaster for the upper coat being reduced monotheist, and after having separately invoked the three persons of the hindu triad, says, that he who believes them distinct, "hell will be his portion." His work is a general history of the period in which he wrote. It consists of 69 books, comprizing 100,000 stanzas, relating to the exploits of Prithi raj, and every noble family of Rajasthan find in it some record of their ancestors. It is accordingly treasured amongst the archives of each race having any pretensions to the name of rajpoot. From this he can trace his martial forefathers who 'drank of the wave of battle' in the passes of Kirman, when 'the cloud of war rolled from Himachal' to the plains of Hindusthan. The wars of Prithi raj, his alliances, his numerous and powerful tributaries, their abodes and pedigrees, make the works of Chund invaluable as historic and geographical memoranda, besides being treasures in mythology, manners, and the annals of the mind. They are entirely heroic; each book a relation of one of the exploits of Prithi raj.—*Tod's Rajasthan, Vol.* I. *p.* 68. ii. *p.* 254.

CHANDA. HIND. Subscriptions.

CHUNDANA ENNE or Chandana enne. TAM Sandal wood oil: oil of Santalum album.

CHUNDAO. HIND. or Chundul, or Chandal. HIND. Lepuranda saccidora. Syn. of Antiaris saccidora.

CHUNDA SAHEB, a mahomedan with whom the French sided, in their efforts to establish themselves in the South of India. In the beginning of the 18th century, Saadut Oollah was ruler of the centre of the Carnatic, from 1710 to 1732, and was succeeded by his nephew Ali Dost. Ali Dost was killed in battle against the Mahrattas, and was succeeded by his son Sufdar Ali. Of his two daughters, one married Chunda Sahib. Chunda Sahib seized on Trichinopoly in 1736, but the place was besieged and taken by the Mahrattas, and Chunda Sahib was taken prisoner, and lingered eight years in prison at Tanjore, where he was murdered by the rajah of Tanjore. Sufdar Ali was assassinated by his brother-in-law Murtuzza Ali, leaving a minor son, but this youth also was assassinated, while Anwar-ud-din was his guardian, and Anwar-ud-din succeeded to the throne as Nabob of the Carnatic, but fell at the battle of Amboor and is buried in the Jamma mosque of Hyderabad.

CHUNDEE. SANS. from Chanda, furious.

CHUNDEE-MANDAPA. SANS. from Chundee, the goddess Chundee and Mandapa, a house. This is a kind of temple, with a flat roof. It is often erected by rich hindoos adjoining to their houses, and is designed for the image of Doorga or Kalee. It is built on four sides, with an area in the middle.—*Ward's View of the Hindoos. Vol.* ii. *p.* 3.

CHUNDEE TOLA, a town on the Hoogley, district of Bengal.

CHUNDEKIA, or Soondekia. TAM. Solanum pubescens.

CHUNDEL, a tribe of rajpoots scattered in various parts of the North-West Provinces, who for the most part derive their origin from Muhoba in Bundelcund. Before the mahomedan conquest Muhoba appears to have been the capital of a principality that extended to the Nerbudda, and included the province of Chunderee, which is called after their name. They are styled Sombunsee, but they are not considered to be of pure descent, and their sons are carefully excluded from marriages with the higher clans. This tribe expelled the Baland tribe from Ajoree, Burhur and Mirzapur.—*Elliot.*

CHUNDELEE, a very fine cotton fabric of India, so costly as to be used only in native courts. It is made from Berar, or Oomraotee cotton. The chief care is bestowed on the preparation of the thread which, when of very fine quality, sells for its weight in silver, the weavers work in a dark under-ground room, the walls of which are kept purposely damp to prevent dust from flying about, Oomraotee cotton is alone used.—*Elliot.*

CHUNDIKA. SANS. From Chanda, furious.

CHUNDNAH, a river near Mordapoor in Pubna district.

CHUNDOO LAL, a Kaet, for many years peshcar of the dewan of Hyderabad. He succeeded Mir Alam, as minister, and almost ruined the Hyderabad state.

CHUNDRA, Soma, Indu, are all epithets for the moon, or as he is classically styled, in an inscription of the famous Komarpal, at Cheetore, "Nissa Nat'h, the ruler of darkness (*Nissa.*)

CHUNDRA. BENG. Ophioxylon serpentinum.

CHUNDRA MULA. BENG. Kæmpferia galanga.

CHUNDRIAK. SANS. The rays of the moon.

CHUNDROOS. GUZ. HIND. Copal resin. The fine shavings of it are used in medicine to stop hæmoptysis, made up into a medicine called "Khairwa." It is much used in varnishes; price in Ajmir Rs.30 per maund. —*Gen. Med. Top.*, *p.* 132.

CHUNDROUR. A river of Banda.

CHUNDRU MULLIKA. BENG. Pyrethrum or Chrysanthemum Indicum.

to a very fine paste perfectly free from grittiness, and on its being, after it is applied to the wall, rubbed constantly with great care till it is quite dry and has acquired a very fine polish. The wall ought then to be frequently wiped with a fine clean cloth to remove the moisture, and it may be occasionally dusted with Ballapum powder. The stone used in polishing it is rock crystal or a white quartz pebble about 3 inches long and 1½ broad, the face of which has a very fine polish. The wall is rubbed with this for one or two days, the moisture being carefully wiped off every morning, and potstone (Ballapum) powder sprinkled on it several times during the day. When the lime is prepared from sea shells, these are first cleaned and washed, and then calcined with charcoal, care being taken to exclude every thing likely to injure the whiteness of the lime : very white sand only is employed, as common sand destroys the brilliancy of the plaster. When white sand is not procurable, white rock crystal or quartz pebbles reduced to a fine powder may be substituted. Mortar for building consists of one part of chunam and two of sand. Immediately before being used, the mortar is mixed with jaggery water, 1 lb. of jaggery being allowed to every parah of lime. It is used in a much more fluid state than is the practice in Europe. When shell lime is used in situations requiring a hydraulic cement, it should be mixed with burnt clay in powder, fresh burnt tiles more or less broken are in general conveniently procured. In building the pier at Masulipatam, Captain Buckle employed a cement consisting of one part of lime, one of the tile dust, and two of sharp river sand, and it appeared to answer well. Jaggery was used in the usual proportion of one pound to a parah of chunam. Limestone abounds in most districts of Southern Asia, but the qualities of the different varieties are best ascertained by experiment. When found in large blocks of very compact stone, the breaching of it forms a considerable item in the expense. Such stone as yields very hydraulic lime is not suited to the purposes of ordinary building, unless the precaution is taken of keeping the work constantly wet. The best form of kiln for burning stone with charcoal is given by Captain Smith in his translation of Vicat, Plate 1, fig. 11 and 12. When wood is used the spheroidal form of kiln is recommended. It will be found to facilitate the expulsion of carbon, if the stone is well moistened in water, previous to placing it in the kiln. It should be remarked that nothing but clean sand should be added to the hydraulic limes; such limes should be used immediately after slaking. When used in situations requiring hydraulic cement, no more water should be used in slaking it than is sufficient to reduce it to a fine dry powder. Magnesian limes have been found at Salem and in the Tanjore district, where it was used with success by Captain Cotton in forming the *anicuts*: the cement formed with it was stronger than that formed with other lime. It should not be immersed immediately on being used. Much controversy has occurred in regard to the advisability of using the lime while hot; the generally received opinion is that it should be so used ; but in regard to the pure limes free from clay and iron, that is without hydraulic properties, this course is questionable. It was not permitted in Rome, and lime mortar kept moist has been found suitable for building after the lapse of several hundred years ; lime used *hot* is seldom thoroughly slaked. A common practice in India is to mix the slaked lime and sand, form it into heaps, on the summit of which is formed a hollow which is kept constantly filled with water. Shell lime, so kept and subjected to the usual beating when used, seemed to Mr. Rohde at least as good as when at first burned: hydraulic limes, including of course all which become hard under water ought no doubt to be used hot. At Ternate, and other coral islands, coral is largely burned into lime for mortar.—*Rhode MSS.*

CHUNAMBU. TAM. Quick lime, Chunam.

CHUNA-KA-PATHAR, lime stone for burning.

CHUNAR, a rock fortress in the valley of the Ganges. It is perched on the crest of a limestone spur that rises to the height of 150 feet abruptly from the edge of the stream. The treaty of Chunar between the subadar of Oudh and Warren Hastings was signed on the 19th September 1781. In the fortress is a state prison in which Trimbukjee Danglia pined away his last days hopeless of ever being able to give a second slip to his enemies. *Trav. of Hind., Vol. I. p.* 132. See Inscriptions.

CHUNAR, the Platanus orientalis. Char-Chunar lake, the Shalimar garden, was one of the great works of Jehanghir.—*Baron Hugel's Travels in Kashmir and the Punjab,* p. 111.

CHUNARU. HIND. also Chunari. H. Lime burners or workers in lime, as plasterers.—*Wilson.*

CHUNCOA. CAN. See Mutti.

CHUND, a hindu poet and religious reformer, but now known only in the former character. He lived in the time of Prithi raj, the last hindu king of Delhi. He was a

CHUNDRU-MOOLA. Beng. Kæmpferia galanga.

CHUNDUN or Chandan. Mar. Beng. Hind. Santalum album; Sandal wood.

CHUNDUNA or Chandana. Duk. also Ghundasaru. Duk. Santalum album. Sandal-wood.

CHUNDUNA SUN. Hind. Corchorus olitorius.

CHUNDUN-BETOO. Beng. Chenopodium album.

CHUNDUN-MOOLEE. Beng. Urtica tuberosa.

CHUNDUS. A scented wood used for the malla or chaplets of hindus.—*Tod's Rajasthan, Vol. II, p.* 282.

CHUNDWASSA. Close to this place are the buddhist caves of Dhumnar, with a hindoo temple behind. The caves are about forty miles from Neemuch.

CHUNDWUR. A small river near Hameerpore.

CHUNE. Maleal. Cathartocarpus fistula.—*Roxb.*

CHUNEEOT. A town north of the plains of Multan. See Sikhs.

CHUNG. Hind. Hordeum hexastichum, also Pyrus malus in Pangi and Chenab, Boucerosia edulis, also Salix alba, white willow.

CHUNG, a border race between Nepaul and Sikkim. They are also called Limbu, Chung being the name given to them by the Lepcha. They are a hardy, hard-working tribe. They cultivate grain and rear cows, pigs, and poultry. Their huts are made of split bamboo and thatched with the leaves of the wild ginger and cardamom, guyed down with rattans. They drink to excess.—*Latham.*

CHUNGAL. Guz. Hind. Verdigris.

CHUNG CHOW. One of the outer islands of the Canton river, 5 miles north ½ west of Lin-ting, and near the S. E. part of Lantoa.—*Horsburgh.*

CHUNGHA. Hind. also Chun, Euphorbia Royleana.

CHUNGI. Hind. Boucerosia aucheri.

CHUNGSA, in Kunawer. From here, a pass leads toBoc'o.oo.

CHUNGSAKHAGO. A pass in Kunawer leading from Chetka to Neilung, on the Jankee or Jannubee branch of the Ganges. It is a lofty pass, probably not under 18,000 feet.

CHUNGUR. A wandering houseless race in the Punjab, probably the same as the Chinganeh of Turkey, the Italian Zingaro, the Spanish Gitano, and the English Gipsy. About Delhi, the race is called Kunjur, a word which in the Punjab properly implies a courtesan or dancing girl. See Zingarro.

CHUNIUM—? Conium maculatum.

CHUNNA. See Gram. Chuna, Chenna.

CHUNNI MARUM. Tam. Acalypha betulina.

CHUNNI-SAFAID. Hind. Abrus precatorius seeds.

CHUNNU. Tel. Chunam.

CHUNUMEA. A tribe of Chunderbunsi rajputs in Jounpur, Azimgurh and Gorukpur.—*Elliot.*

CHUPAO. Pers. A foray; a charge of cavalry.

CHUPATHI. Hind. An unleavened wheaten cake.

CHAPATHIKI BHAJI. Duk. Marsilea quadrifolia.

CHUPDA LAC. Shell lac. See Chap.

CHUPEIN. Hind. Potamogeton gramineus.

CHUPPER. Pers. Couriers on horseback.

CHUPRA. A town in Bahar province.

CHUPRI ALU. Beng. and Hind. Dioscorea globosa, properly Safri-alu—*Roxb.*

CHUPTA-LAC. Duk. Guz. Hind. Shell lac.

CHUR. Hind. of Kishangunga, Quercus ilex.

CHUR. In the Punjab, the sweeper caste, many of whom have become followers of Nanuk, and are commonly called Rungretha Sikh or Mazhabi Sikh. See Chura.

CHUR. Hind. Beng. The shifting alluvial deposits of a great river, are so called in Bengal.—*Yule's Embassy, p.* 26.

CHUR, one of the spurs of the Himalaya, 12,500 feet in height.

CHURA. Beng. Xyris indica.—*Linn.*

CHURA. Caste of sweepers, one of the ghair mulazim castes in a village.

CHURA. Hind. Commelyna Bengalensis, also Angelica glauca.

CHURA and Tirah are fertile and well peopled valleys, enjoying a cool climate, in comparison with that of Peshawar; and it was not unusual for the sirdars, and others, who had an understanding with the inhabitants, to pass the warm weather in the former of these places, which also frequently became a place of refuge to the distressed. At Chura resided Khan Bahadar Khan, Afredi, who attained immense influence amongst his tribe from the circumstance of his attendance at court during the sway of the Sadoz Zye. Shah Sujah married one of his daughters to, and, on more than one occasion, found an asylum with him. The Afredi occupy the eastern parts of the hills, nearest Peshawar; and the Shinwari the western parts, looking upon the valley of Jelalabad. The Orak Zye reside in Tirah, intermingled with the Afredi, and some of them are found in the hills south of Peshawar. It was a malek or chief of this tribe who conducted Nadir Shah and a force of cavalry, by the route of Chura and Tirah, to Peshawar, when the principal road through the hills was defended against him. The Shinwari, besides their portion of the hills, have the lands immediately west of them, and some of the valleys of the Safed Koh range. More westerly still, under the same hill range, they are found south of Jelalabad, and are the neighbours of the Khogani. These are in the condition of unruly subjects. There are also some of them in Ghor-band, and they dwell in great numbers bordering on Bajor to the north-west, where they are independent, and engaged in constant hostilities with the tribes of Bajor and of Kafiristan.

CHURAITEA, a river near Pabrumala in Bograh district.

CHURAKH. HIND. A wheel, a discus. See Charakh; Siva.

CHURAL. HIND. Lathyrus sativus.

CHURANG or Chor Ganga, the founder of the Ganga-vansa dynasty of Orissa. His name is also written Saranga deva. He invaded Orissa in A. D. 1131 and his dynasty ended with rajah Narsinh-deo who, in 1217, built Kanarak, the Black Pagoda. Churang was a benefactor to Juggernath, adorned it, and peopled its neighbourhood.

CHURBI. GUZ. CHARBI. HIND. Tallow

CHUR-CHE, of early European travellers, are the Yu-che or Niu-che of the Chinese, the ancestors of the modern Manchu.

CHURI. HIND. GUZ. Knives.

CHURI. DUK. a bird, hence khan-churi a house-sparrow; Churi-mar, a bird catcher.

CHURI. HIND. Bracelets.

CHURIAL. HIND. Aralia cachemirica.

CHURI KI BHAJI. DUK. Amarantus campestris.—*Linn.*

CHURI-SAROCH. Artemisia scoparius, also Asparagus Punjabensis, and A. elegans.

CHURM. PERS. Leather, properly, charm.

CHURMA. MALAY. Phœnix dactylifera.

CHURO, an unleavened cake of wheaten flour made into dough with clarified butter and mixed with brown sugar: supposed, in Sind, to increase the delicacy of the skin.—*Burton's Scind, Vol.* I. *p.* 288.

CHURRA, a sanatorium or hill station on the N. E. frontier of India. The mean temperature of Churra (elevation 4000 feet) is about 66°, or 16° below that of Calcutta; which, allowing for 2½° of northing, gives 1° of temperature to every 290 to 300 feet of ascent. In summer the thermometer often rises 88° and 90°: and in the winter, owing to the intense radiation, hoar-frost is frequent. —*Hooker Him. Jour. Vol.* II. *page.* 284.

CHURRUS. HIND. See Charras.

CHURURE KAI. TAM. Cucurbita lagenaria. Calabash.

CHURWA. HIND. Bruised rice.

CHUSAN, is the largest of a closely packed group of islands, near the main-land of China, and about 500 miles to the northward of Amoy. Chusan is the station of a sub-prefect. And, with the smaller neighbouring islands, forms a district called Ting-hai, the name by which it is always spoken of by the mandarins among themselves and which it bears in all the works published by Imperial authority. During the winter months Chusan is very cold, and the snow lies on the ground. The country there abounds with game, deer, swans, partridges, pheasants, and wild fowl of every description: Chusan was captured by the British on the 5th July 1840, and recaptured on the 1st October 1841. *Meadows' Desultory Notes p.* 89, *Marryat's Indian Archipelago. p.* 150.

CHUSBAL. HIND. Potamogeton crispus.

CHUSHUL, a place in Ladak where is a hot spring of a temperature of 96°. The waters are without taste or smell but are said to have medicinal properties.

CHUSHM-I-MAIDAH. GUZ. HIND. PERS. The Cats eye gem.

CHUSMUK, also Chusmiga. PERS. Cassia absus.

CHUSSAEE. HIND. Arango, GUZ, large rough cornelian beads of various sizes and shapes, made in Cambay, and formerly extensively used in the African slave trade.—*Faulkner.*

CHUTA. HIND. Cigar.

CHUTAH NAGPUR, is 3,000 feet above the sea. See Chota Nagpore.

CHUTI. HIND. Asparagus Punjabensis.

CHUTIAL. HIND. Rheum emodi.

CHUTIALLI, a plain in Cutch Gandava, See Tor.

CHUTKA. BENG. Bauhinia acuminata.

CHUTNEE. The Chutnee of India is a warm condiment used in every family, either prepared fresh daily from ripe vegetables or preserved. The following is a recipe for the "Delhi or Celestial Chutnee." Take of green mangoes; raisins; mustard seed; salt; green ginger; and garlic; each one seer: onions (none or) half a seer; dried red chillies half to one seer: moist or soft sugar one to two seers: white wine vinegar four bottles. The ginger, garlic and onions are to be peeled, and together with the chillies are to be cut into thin slices previously to being pounded; the mustard seed to be washed and dried, then gently bruised and winnowed; the raisins to be washed and freed from the stones; the sugar to be made into a thick syrup; the mangoes to be picked of their rinds cut into thin slices (some boil them in three bottles of the vinegar, adding the fourth when mixing them up with the other ingredients)and pounded; the remaining articles are to be separately pounded, and then the whole is to be incorporated, put into a stone jar, well closed and placed in the sun for a month or two. If put into a glass bottle, it should occasionally be put out in the sun. It will keep good for years.

2. *Love-apple Chutnee*: Take the love-apple (solanum lyco-persicum, *Lin.*) a large plateful, the rinds and seed to be rejected, and only the pulp used; dried salt-fish cut very fine (as if rasped), a piece about two inches square; six onions cut into thin longitudinal slices; eighteen green *chillies* chopped fine, dried tamarind two *pice* weight (or one ounce), mashed up in about three or four ounces of water (stones and fibres to be rejected); salt, a teaspoonful *ghee* or butter, five *pice* weight (or two ounces and a half) First put the *ghee* into a tinned copper vessel placed on the fire, when it is melted add the onions, and as the latter begin to assume a reddish hue add the *chillies*, stirring them well for five minutes: then add the salt fish and continue stirring the whole; when the *ghee* has nearly evaporated add the love-apple and stir it about for a good while; lastly, add the tamarind water and salt, and mix the composition well until it acquires a pretty dry consistence (like that of *brinjal chutnee* or *sambal*). This *chutnee* is only for immediate use and will not keep above a day or two.

CHUTOOR-ANANA. SANS. Four-faced; from chutoor, four, and anana, a face.

CHUTRI, or CHATRI. GUZ. HIND. Umbrella.

CHUTSALEE. TIBETAN. Coarse borax, from Ruthog.

CHUTSAO. CHIN. Ganjah.

CHUTTAE. GUZ. HIND. Mats.

CHUVUNDU CODUVALI. MALEAL. Plumbago rosea, *Linn.*

CHUWA SIRSA. First class barilla or sajji.

CHUYAR. A hill-tribe in the range bordering Bengal on the west, in Ramgurh and the neighbouring districts.—*Wilson.*

CHYAVANA, in hindu mythology, is the son of Bhriga, the son of Brahma, by his wife Puloma. A Rakshasa, or fiend, attempting to carry off Puloma, the child was prematurely born, whence his name, from Chya, to fall from. Upon his birth, his splendour was such as to reduce the insulter of his mother to ashes. Having adopted a life of ascetic devotion, he was so immersed in abstraction that he became completely covered with the nests of white-ants. Sukanya, daughter of king Sariyati, wandering in the forest, observed what she thought two lights in an ant-hill, and thrust in two blades of kusa grass, which, when withdrawn, were followed by a flow of blood. Much alarmed, the princess repaired to her father and related what had happened. The king conjecturing the truth, immediately went to the spot to deprecate the wrath of the Rishi, and pacified him by giving him the damsel in marriage. After being married some time, the Aswini Kumara, passing by Chyavana's residence, conferred upon him youth and beauty, in requital of which boons he gave them a share in the soma juice offered at sacrifices to the gods. The gods, with Indra at their head, opposed this grant, and India lifted up his hand to strike Chyavana dead with his thunderbolt, when the sage paralysed his arm. To appall the gods he created the demon "Mada," intoxication personified, in terror of whom and of the power of the saint, the gods acceded to the participation of the Aswini Kumara in divine honours. Indra was restored to the use of his arm, and "Mada" was divided and distributed amongst dice, women, and wine. —*Bhavishyat Purana,and the Dana Dherma-section of the Mahabharat, page* 263.

CHYCHM. EGYPT. Cassia absus.

CIAMBELOTTO. IT. Camlet.

CIANDU, a place in China 150 miles beyond the great wall, and ten days' journey from Pekin. It was called Che-men-fu, and by the Tartars Kai-min-fu. It was noticed by Marco Polo, and there stood that magnificent park and palace of the Tartar ruler of China, the great Kablai Khan, the description of which set Coleridge a-dreaming (or dreaming that he dreamt) that wonderful poem which tells how,

"In Xanadu did Kublai Khan,
A spacious pleasure dome decree."

A later traveller mentions how this lord passeth the summer at a certain place which is called Sandu, situated towards the north, and the coolest habitation in the world.—*Yule Cathay I, p.* 134.

CICACOLE, generally written Chicacole, a town in the Northern Circars, in L. 18° 13′ North, and L. 81° East. It is the chief town of a district of the same name, which, with Rajahmundry, Ellore, Condapilly and Guntoor, form the five Northern Circars. The four first occupy the sea coast from the Chilka lake on the confines of Cuttack, to the northern bank of the Kistnah river, forming comparatively a long, narrow slip of country 350 miles long, and from twenty to seventy-five wide.—*Rennell's Memoir, P.* cxxxiv.

CICCA DISTICHA. Linn.

Phyllanthus longifolius. *Roxb.* | Averrhoa acida. *Linn.*

Nuri	Beng.	Chelmeri	Hind.
Nubari	,,	Harfarori	,,
Cheramella	,,	Chirimi	Malay.
Hurriphal	,,	Cheremin	,,
Nubi	,,	Nelli	Maleal.
Them-bau-h'soke-gyoe	Burm.	Cherambola	Port.
Urfalayurie	Duk	Rata nelli	Singh.
Country goosebery	Eng.	Arnelli	Tam.
Otaheite ,,	,,	Arnelli pallam	,,
Cherambola	of Goa.	Arnelli paudu	Tel.
		Chillimilli	,,
		Racha usirike	,,

A small tree, leaves pinnate, from one to two feet long, scattered about the ends of the branches. Its flowers small, and of a reddish colour. It is commonly cultivated in the gardens of India, and all over the Tenasserim Provinces, is planted by the Burmese who value its fruit highly. It bears some resemblance to a gooseberry, both in appearance and taste. It yields a roundish sub-acid fruit about the size of a large marble. The fruit is universally used as an article of food, raw or cooked, or in pickles or preserves. Leaves are sudorific, and seeds cathartic. The tree in Tenasserim is diœcious. Wood inferior.—*Roxb.* iii. 672. *Ainslie, page* 222. *O'Shaughnessy, page* 551. *Mason. Hort. Garden* 31.

CICENDIA HYSSOPIFOLIA. Adans.

Gentiana hyssopifolia *Linn.*
Exacum hyssopifolium *Willde.*
Adenema hyssopifolia *Don.*
Gentiana verticillata *Linn.*
Slevogtia verticillata *D. Don.*
Hippion hyssopifolium *Spreng.*

Charaita	Hind.	Valla rugu	Tam.
Chata Charetta	,,	Nellaguli	Tel.

This plant is common in various parts of Southern India, as at the mouth of the Adyar river in the environs of Madras. The whole plant is bitter, and much used by the natives as a stomachic, being also somewhat laxative. It is used as one of the Chiretta plants.—*O'Shaughnessy, p.* 460. *Cleghorn.*

CICER ARIETINUM. Linn.; *Roxb.*; *W. and A.*; *W. Ic.*

Himis	Ar.	Chena,	Guz.
Humuz	,,	Chana	,,
Chunai But-kale	Beng.	Chenna	Hind.
Chuna-batoola	,,	Kadalacca	Maleal.
Ku-la-pai	Burm.	Nakhud	Pers
Kadalay	Can. Maleal. Tam.	Chola	Punjab.
Harbarah	Duk.	Cheunaka	Sans.
Homos	Egypt.	Cadalay	Tam.
Bengal-gram	Eng.	Senaga	Tel.
Chick pea	,,	Sanaga	,,
Gram	,,	Chanaka;	,,
		Hari-mandhakamu	,,

This valuable pulse is much prized in India, and in the more northern provinces of Hindostan, where it is common, is that generally given to horses. When parched, it tastes not unlike the toasted cashew-nut, and is often used by the people of northern India for food. Its composition

	Per cent.		Per cent.
Moisture.	10·80	Fatty or oily matter	4·56
Nitrogenous matter.	19·32	Mineral constituents (ash)	3·12
Starchy matter.	62·20	Total	100·00

It is largely grown in the Chittledroog Division, and all classes of people in Mysore use it as food. Professor Link, in his Travels, informs us that it constitutes the chief food of the lower class in Spain, where it is called Garvanzos. The chick-pea, or Bengal gram, is grown extensively by the Burmese, especially in Burmah, and large quantities are imported into the Tenasserim Provinces from Rangoon.—*Ainslie, p.* 237. *Mason.*

CICHORIUM INTYBUS. Linn.

Shikoriah	Ar.	Hinduba	Hind.
Chicory	Eng.	Hand-gul	of Kaghan.
Kichorion	Gr.	Suchal-hand	of Chenab.
Kasni	Hind.		

Two varieties of this are grown in many parts of India, from Cape Comorin to the Himalaya. Wild chicory vegetates luxuriantly during the summer in Cashmere, and in the Punjab during the cold season. It grows there up to 5,500 feet, and in Lahoul up to 9,500 feet, and the young plant is used as a vegetable. The seeds are used in medicine, and are consequently kept in the bazars. Seeds of both varieties appear to be officinal, being considered carminative and cordial. The root also is used medicinally. The roots contain nitrate and sulphate of potash, mucilage, and some bitter extractive principle. An infusion of Chicory mixed with syrup causes a thickening of the liquid.—*Honigberger, p.* 25. *L. J. Stewart, M.D., p.* 408.

CICINDELIDÆ. One of the Coleoptera.

CICINDELA HEROS, and C. gloriosa occur in Celebes, the latter is of a rich velvetty green colour.

CICONIA. A genus of birds of the order Grallatores. Ciconia alba, the White Stork, occurs in Europe, Asia, North Africa, is migratory, and is common in India during the cold season in immense flocks in Lower Bengal. *Ciconia nigra* ('Black Stork.') of Europe, Asia, North Africa, is not uncommon in India.

CICUTA VIROSA.

Devil's Salep	Eng.	Zahri gugal	Kash.
Poison turnip	,,	Salep i shaitan	Pers.

Occurs in Cashmere.—*Royle, p.* 426. See Conium maculatum.

CID of Spain, the Arabic Seyda, lord, the term by which all the descendants of Mahomed are styled, viz., Syed.

CIDER or Cyder. Eng.

Cidre,	Fr.	Cidro	It.
Zider	Ger.	Sidor	Rus.
Apfelwein	„	Sidra	Sp.

The wine of the apple. It is made in Britain, on the Continent of Europe, and in the United States. There was a recent manufacture of cider by the maharajah of Cashmere upon a large scale.—*Faulkner. McCulloch.*

CIDRE. Fr. Cidro. It. Cider.

CIGARS. Eng.

Chutta	Hind.	Shruttu	Tam
Rokok	Malal.	T'sutta	Tel.

Cigars are made all over the south and east of Asia, but the most celebrated are those of Manilla, of Chinsura in Bengal, of the islands or Lunka of the Godavery, of Trichinopoly and of Dindigul. See Cheroots.

CIMERII. The Cimbri or Camri, a Getic race, who entered Europe from Asia. Herodotus (Melpomene, p. 190) says the Cimmerians, expelled by the Massagetæ, migrated to the Crimea. Here were the Thyssagetæ, or western Getæ; and thence both the Gete and Cimbri found their way to the Baltic. Rubruquis the jesuit, describing the monuments of the Comani in the Dasht-i-Kipchak, whence these tribes came, says, " their monuments and circles of stones are like the Celtic or Druidical remains of Europe —*Bell's Collection.*

CINCHONA. A South American genus, many species of which, have been introduced into India since the beginning of 1861. The sites selected in South India have been near Ootacamund and Neddiwattum on the Neilgherry hills, at an elevation of 5,400 feet, C. Lucumœfolia and C. Pahudiana, to the number of 500,000 plants, had previously been planted by the Dutch in Java. On the Neilgherries, the Government plantations extend over nearly 1,200 acres, while a no inconsiderable extent on the estates of private landholders is covered with the best varieties of the plant. Along the hills of Wynaad and in Mysore the cultivation is extending, slowly perhaps, for it is but a secondary care to the planter until he can see his way readily to a remunerative return. A hopeful colony from the Neilgherry stock has been planted at Toungboo, and promises to multiply for the supply of British Burmah. Upon the spurs of the Darjeeling hills and the other slopes of British Sikhim the cinchona is thriving as well, apparently, as in its native country. Plants may be propagated from seed, and experiments tried upon the Khassyah hills and other high latitudes upon a less expensive scale, and with more chances of success than from previous efforts. In the Doons, in the North Western Provinces, plants brought from Darjeeling have been successfully planted out at Chandwallah. In the Kangra district of the Punjab, the cinchona flourishes on four estates, and the early outturn shows that the barks are sufficiently rich in quinine to encourage cultivation on a more extensive scale. There was long a doubt as to the success of the cultivation of cinchona in Kangra. But Major Paske, after a careful inspection of four plantations there, belonging to private persons, reports that the plant has been successfully introduced and will become naturalized. On their estate at Bowarna, the Punjab Cinchona Company have increased the area planted out to 20 acres, on which they have now 14,730 young trees all in healthy condition, and varying in height from five to six feet. Bark taken from branches 2 years and 4 months old yielded, on analysis, 3½ per cent. of sulphate of quinine crystallized, or more than in the cinchona barks of the Madras presidency. The experiments in cinchona cultivation did not really commence in Kangra till March 1864. There were, in 1869, 53 acres permanently planted out. The species " Succirubra," " Micrantha" and "Calisaya" thrive best in the valley at altitudes varying from 3,000 to 3,500 feet, while the species Condaminia requires a somewhat higher altitude.

The Native States of Travancore and Cochin have evinced a desire to promote cinchona cultivation. By the latest returns there were in the Government gardens at Darjeeling 782,048 plants, and in private gardens, which probably aggregated 170 acres, 232,778. The great work of the Darjeeling plantations has been the naturalization of the *Cinchona calisaya*, the "queen of the cinchonas," which had been reared with less success at Ootacamund. At Ootacamund the area planted out is returned at 1,182 acres; the number of plants at 894,059. The total expenditure from the commencement of operations has been Rs. 512,593 or Rs. 21,072 less than the original estimates. But it must be remembered, in comparing the relative expense of the Darjeeling and Ootacamund plantations, that convict labour was employed on the latter for a considerable period. The red and gray barks have been the most successful at Ootacamund, the *Calisaya* ranking only third. The success of Ootacamund barks of the *Cinchona officinalis* has been remarkable. At the last analysis, Mr. Howard extracted 11·49 per cent. of alkaloids and 9·75 per cent. of quinine from the lanceolate variety. The largest extract hitherto known to have been taken from the Peruvian bark is 8·5 per cent., of which five per cent. is quinine. Private cultivation upon the Neilgherries is retrograding in common with all other enterprize. Several years ago a beginning was made in Travancore with 1,628 plants and 5,817 cuttings in the Peermode gardens. No statistics are available of the Derah Doon plantations, but in those in the Kangra valley there were fifty-three acres planted out with 98,972 plants. A late analysis showed that *Chinchona succirubra* grown at Kangra yielded 2·50 of Quinia, a result that cannot but be considered highly satacfactory.

Botanical Names.	Commercial Names.	No. of Plants.	Value in the London market per lb. of dry Bark.
			s. d. s. d.
1. Cinchona succirubra...	Red bark..........	14,450	2 6 8 9
2. ,, Calisaya........	Yellow bark.......	237	2 10 to 7 0
3. ,,Condamineavar·Uritusinga	Original Loxa bark.	1	2 10 to 7 0
4. ,, ,, var. Chahuarguera.	Rusty crown bark...	8,000	2 10 to 7 0
5. ,, ,, var. Crespilla.... ...	Fine crown bark...	150	2 10 to 6 0
6. ,, Lancifolia from Java......	Crown bark	1	1 8 to 2 10
7. ,, Nitida.......	Genuine grey bark.	2,922	1 8 to 2 9
8. ,, Species without name...	Fine grey bark....	1,211	1 8 to 2 10
9. ,, Micrantha.....................	Grey bark........	3,786	1 8 to 2 9
10. ,, Peruviana.....	Finest grey bark...	357	1 8 to 2 10
11. ,, Pahudiana from Java....	Unknown....	425	Worthless.
	Total No. of Plants.	31,492	

Cinchona bark from Neilgherries in 1867, brought 2*s.* the lb, and quill bark 1*s.* 9*d.* The best samples contained 7 per cent. of alkaloids after 4 years' growth.

Scarcely thirty years have passed since Cinchona cultivation was little more than a dream in the minds of Royle, Falconer and a few other naturalists, and a very short period since the first plants were brought to the country. Yet the cultivation which appears to us to be in its infancy would by them have been accepted as the acme of success. This success has been due to the efforts of Mr. Clement R. Markham who twice went to S. America and brought plants to the Neilgherry Hills, and of Mr. McIvor of Ootacamund, to whose great skill, Mr. Markham attributed entirely their growing. The next step to be taken, is to obtain cheap quinine. Until quinine can be extracted in India and barks analysed without the heavy expenditure that must be incurred in submitting specimens for the opinions of home chemists, we cannot look for cheap quinine nor can we expect that Cinchona plantations will be extended by private enterprise. Of the requisites for the preparation of the bark the more important materials are lime, soda, pearlash, magnesia, animal charcoal, sulphuric acid, alcohol and other substitutes. The advantage of manufacturing with indigenous alkaloids is more fully apparent in other respects than from its cheapness. The barks yield more cinchona and of a better quality when fresh, and the expensive preparations necessary for safe exportation are altogether avoided. With the exception of sulphuric acid all the materials required in the extraction of quinine have been found on the Neilgherries and in the neighbourhood in sufficient abundance for extensive manufacturing operations, and most if not all of them are to be found in the Sikkim ranges.

CINCHONACEÆ, the coffee tribe of plants of which there are 233 genera and 870 species. Of these 729 species are known to occur in the south and east of Asia, viz., in Zanzibar, Timor, Persia, Japan, each three, in Arabia four, and in India 695.

CINERARIA AZUREA, flowering plants known by the name of Cape Aster, showy flowers of orange, yellow, purple and red coloured varieties. They grow from two to three feet high, the leaves being covered with a soft white down.—*Riddell.*

CINGHALESE, a mode of writing Singalese, the people and language of Ceylon.

CINNABAR, Eng. Ger.

Zunjefer	Ar.
Pak Shanghaif	Duk.
Cinaber	Dut.
Vermilioen	,,
Bi-sulphuret of mercury	Eng.
Red sulphuret of mercury	,,
Cinnabre	Fr.
Sulfure rouge de mercure	,,
Zinnober	Ger.
Rothes schwefel-quecksilber	,,
Hingra	Guz.
Hingda	Guz.

Hingda	Hind.
Durdar	,,
Hingur	,,
Cinabro	It.
Hydrargiribisulphuretum	Lat.
Cinnabrium	,,
Galuga	Malay.
Sedilengam	Maleal.
Shangarf	Pers.
Kinowar	Rus.
Inghulum	Sans.
Cinabrio	Sp.
Shadilingam	Tam.
Inghilikam	,,
Inghilikam	Tel.

This is found in commerce native and manufactured. The best *Native cinnabar* is red, heavy, brilliant, of a high colour, and free from earthy or stony matter. It is found in various places, chiefly in quicksilver mines, being one of the ores of that metal. It occurs native in China abundantly in Shensi, and all the quicksilver (shwin yin " water silver," i. e. hydrargyrum,) not imported into China, is there obtained from this ore, it is said, by a rude process of burning brushwood in the wells, and then collecting the metal after condensation. Cinnabar has been discovered at Basein, in Borneo, in a mountain range called Bungo, extending between two branches of the Sarawak river. It yields 84 per cent. of quicksilver. For making *artificial cinnabar*, when two parts of mercury and one of sulphur are triturated together, the mercury gradually disappears, and the whole assumes the form of a black powder. When this is heated red hot, it sublimes, and if a proper vessel be placed to receive it, a cake is obtained of a fine red colour, which, when reduced to a fine powder, is known by the name of *Vermillion* (*Thomson's Chemistry*). Artificial cinnabar is largely manufactured in Calcutta, and in small quantities at Surat. Manufactured cinnabar is found in all the Tenasserim bazars, but it is imported there. It has been employed in medicine by the hindoos from time immemorial, to salivate their patients, which they do most effectually by causing them to inhale its fumes. The Burman name appears to be derived from the Sanscrit. Cinnabar or bisulphuret of Mercury is sold in Calcutta in red, striated, crystalline lumps, also in powder; it is often adulterated by red lead and brick dust. It is entirely volatile from a slip of tale, while these impurities remain behind. Compound Cinnabar Ointment, is Captain Aitkin's well known and useful " ringworm ointment."—*Williams' Middle Kingdom, p.* 245. *Mason. Beng. Phar. p.* 382.

CINNABRE, Fr. Cinnabar.

CINNABRIUM, Lat. Cinnabar.

CINNAMOMUM, a genus of plants belonging to the natural order *Lauraceæ*, confined to Eastern and Southern Asia. Lindley includes in the genus Cinnamomum, the following twelve species.

Names.	Habitat.	Product.
C. aromaticum	China	Source of Chinese cinnamon according to Nees.
C. culitlawan	Amboyna	Culitlawan bark.
C. javanicum	Java and Borneo	Bitter and aromatic bark strongly recommended by Blume in periodic colic, and the after-pains of labour
C. Kiamis	Cochin China	Said to produce one kind of Massoy bark
C. Loureirii	Cochin China	Flowers of Cassia, and a vey inferior cinnamon
C. nitidum	India, Java, Ceylon	Furnished the greater part of the old Folia Malabathri
C. rubrum	Cochin China	Similar to C. culitlawan
C. Sintoc	Neilgherries	Similar to do. but more bitter
C. Tamala	India	Tej-pat leaves or Folia Malabathri of Indian shops.
C. xanthoneuron	Moluccas	Similar to C. culitlawan, but extremely like Massoy bark
C. zeylanicum	Ceylon	True cinnamon
C zeylan: var. Cassia	India	Cassia lignea.

Dr. Wight, in Icones, gives figures of the following 14 species :—

C. albiflorum.
C. aromaticum.
C. culitlawan.
C. dubium.
C. dulce.
C. iners.
C. multiflorum.
C. nitidum
C. obtusifolium.
C. ovalifolium.
C. perpetuoflorens.
C. recurvatum.
C. villosum.
C. Zeylanicum.

There are however 20 known species, some of which yield cinnamon and others cassia, two aromatic barks which appear to differ from each other in little, except in the degree in which the aromatic principle exists in them. One of these products has been noticed under the head Cassia, and the other will be remarked on under Cinnamon. Cinnamomum rubrum, grows in Cochin China, and contains an essential oil, smelling of cloves, but not so agreeable. Cinnamomum sintoc, grows on the Neilgherry mountains in Hindustan, and the higher hills of Java. It is a tree 80 feet high. The bark is in quality very like the true Culitlawan, but not so agreeable; it is more bitter and drier, and more powdery when chewed. Cinnamomum tamala is a native of India, wild in Derwanee and Gongachora, cultivated in the gardens of Rungpoor. The taste of the leaves when dried is aromatic; they are sold in the shops under the name of folia Malabathri Tamalapathri of India. Cinnamomum Xanthoneuron is a tree growing on the Papuan Islands and the Moluccas. The bark has great fragrance when fresh, but loses this quality in time. It is so extremely like Massoy bark as to be confounded with it.—*Eng. Cyc. p.* 1089. *O'Shaughnessy, page* 544.

CINNAMOMUM ALBIFLORUM, Nees.

C. Camphoratum. *Bl.*
C. Tamala, *F. Nees.*
Dalchini Hind.
Tajkalmi, Leaves.
Laurus Cassia, *Roxb.*
Tejpat. Hind.

This tree grows in Tipperah, Nepaul and in the Punjab, is not uncommon in the Himalaya east of the Sutlej, grows sparingly at about 5,000 feet as far as the Ravi, and probably in Hazara. Part at least of the officinal bark and leaves are probably derived from this tree. The former is given for gonorrhœa, and the latter are used in rheumatism, being considered stimulant. Its timber does not appear to be valued.—*Voigt.* 708. *Dr. J. L. Stewart.*

CINNAMOMUM AROMATICUM, NEES v. ESEN.

C. cassia, *Blume.*	Laurus Cinnamomum,
Laurus cassia, *Nees t.* 3.	*Andr. Repst.*

A tree of considerable size, said to grow in the dry sandy districts lying N. W. of the town of Fai foe, between Lat. 15 and 16 N. It is said to produce the cinnamon of China and Cochin-China, as also cassia bark and the aromatic fruits called Cassia buds. See Cinnamon.

CINNAMOMUM CITRIODORUM, THW. SINGH. A tree Pangaree Kooroondoogass of Ceylon, growing to a height of 20 or 30 feet in the Sufragam district at an elevation of 1000 to 2000 feet. It is distinguished by the venation of its leaves and by the truncated cup of the fruit. The bark has much of the odour of citronella oil, intermixed with something of the fragrance of common cinnamom.—*Thw. En. Pl. Zeyl. p.* 253.

CINNAMOMUM CULITLAWAN, *Nees.*

Laurus culitlawan,. *Roxb.*
„ caryophyllus, *Lour.*
Cortex caryophylloides, *Rumph.*

A native of Amboyna, especially in Leitimoo near the villages of Sava Rutton and Ema. It also grows in Cochin China. The bark when dry is aromatic like cloves, but less pungent and sweeter. It has some astringency, and owes its medicinal activity to a combination of volatile oil resin, and bitter extractive. It is used in dyspeptic complaints, diarrhœa, &c. The natives of Amboyna use the oil in both as an internal medicine and as a stimulating liniment. —*Voigt.* 308, *Eng; Cyc. page.* 1089.

CINNAMOMUM DULCE. NEES.

C. chinensis *Bl.*	Laurus dulcis *Roxb.*

A small tree of China, leaves and bark of a sweet aromatic taste and odour.—*Roxb.* ii. 203.

CINNAMOMUM EUCALYPTOIDES, NEES. Grows on the mountains of Malabar its leaves have a strong acrid clove like odour and taste somewhat tinctured with camphor. *Nees quoted by Voigt.*

CINNAMOMUM INERS. REIN.

Theet-kyam-bo	BURM.	Ran dal chini	MAHR.
Len-kyau	„	Kot-karva	MALEAL.
Wild cinnamon	ENG.	SombelaPuli pilla	TAM.
Dar-chini	HIND.	Pachaku	TEL.

This tree is supposed to be the C. Carua of Rheede. It grows along the great range of the ghauts, and in the hilly parts of Malabar and the Concans, in Moulmein, Ataran, Chapedong, Penang, and Java. It is supposed to yield part of the Cassia and Cinnamon of commerce. Its leaves, on being bruised, have a strong spicy smell. The tree is found in the Bombay ghat forests, chiefly to the south, and Dr. Gibson says the wood is rather strong, but is little used in house building, or for implements. Dr. Wight says, it is a tall tree in Coimbatore, rather slender in proportion to its height; the wood is fine, even-grained and supposed very good, but apparently has never been used by the carpenters there, as none of them are acquainted with it.—*Drs. Gibson and Wight.*

CINNAMOMUM JAVANICUM, is a tree with a trunk 20 feet to 30 feet high, growing in Java and Borneo. The bark is of a deep cinnamon brown colour more bitter than Culitlawan bark, and the leaves, when rubbed, have a very sharp aromatic odour. Blume says the bark deserves the attention of medical men on account of its powerful anti-spasmodic properties.—*Eng. Cyc. page* 1098.

CINNAMOMUM KAIMIS. See Cinnamomum.

CINNAMOMUM LITSEÆ-FOLIUM. THW.

Koodoo-Kooroondoo gass, SINGH.

A tree of fifty or sixty feet, growing at Hapootelle in the central province of Ceylon at an elevation of 5,000 feet. Its bark is quite inodorous.—*Thw.*

CINNAMOMUM LOUREIRII. NEES.

Kio-kiu,	CHINA.	Ni-kei,	JAPAN.

Grows on the lofty mountains of Cochin China, to the west towards Laos, and in Japan. The flowers of Cassia are produced by this species. The old and young branches are worthless, but the middle-sized shoots are superior to that of Ceylon, and are sold at a much higher price.—*Eng. Cyc, page* 1089.

CINNAMOMUM NIDITUM. NEES.

C. Cassia, *Nees, W. Ic.*

Kadigi-hindi,	AR.	C. Cassia Nees,	W. Jc.
Tej-pat,	BENG.	Laurusnitida,	ROXB.
Sadrus,	HIND.	Putruj (bark),	HIND.
		Tamalaputra,	SANS.

Described as a tree of Sumatra, and as a small tree or shrub on the continent of India. Its flowers are small and of pale yellowish colour, and the bark is cinnamon like in taste and odour. It is the plant which furnished the principal part of the 'Folia Malabathri' of the old pharmacologists.—*Eng.Cyc.p.*1089.

CINNAMOMUM OBTUSIFOLIUM. NEES.

Laurus obtusifolia, ROXB.	L. Malabathrica, ROXB.

A tree of the mountainous countries immediately east of Bengal, with small greenish yellow flowers. Its timber is very useful for various purposes.—*Roxb.* 302, *Voigt.* 307.

CINNAMOMUMZEYLANICUM. Breyn. *Nees. W.*

C. capparis-coronde, *Blume. Nees.*

Var. β. multiflorum.

C. multiflorum, *W. Ic.* | C. dubium, *Nees.*
C. perpetuoflorens, *W. I.* | C. villosum, *W. I.*

Var. γ. ovalifolium.

C. ovalifolium. *Wight.*

In addition to the above synonyms, Mr. Thwaites (*En. Pl. Zeyl.*, *p.* 252) strongly suspects that C. obtusifolia, N. ab. E. Ic., p. 36, cum. syn. Wight, Ic. t. 139; C. bazania, N. ab. E. Ic. p. 26, cum. syn.; C. malabathrum. Batka; N. ab. E. Ic., p. 38, cum, syn. C. iners, Wight, Ic., tt. 122, 122 bis, 230, and C. nitidum, N. ab. E. Ic., p. 43, cum syn. Wight. I. c. t. 124, will prove to be mere forms of the present species. He thus further observes "without the opportunity which I have had of seeing numerous examples of this very variable tree, I should scarcely have ventured to unite the above enumerated varieties under one specific name, so unlike one another are the extreme forms of each, but in a large series of specimens it is frequently difficult, or even impossible, to determine to which variety to refer some of them, so intermediate are they in character. The best cinnamon of commerce is the produce of what I consider a cultivated or selected form of var. *a.*, and the trees of this form have usually large leaves of somewhat irregular shape; but the barks of all the forms of this species possess the odour of cinnamon in a greater or less degree, and it is not always possible to judge of the quality of the bark from the foliage, for I have observed the cinnamon-peelers, when collecting bark from cultivated trees, taste a small portion before commencing their operations, and pass over some trees as unfit for their purpose. The bark of *β* and *γ* is of very inferior quality, and I have been informed is never collected, except for the purpose of adulteration. A fragrant oil, sold under the name of "Clove oil," is obtained by distillation from the leaves of the cultivated cinnamon-tree, and the roots yield, under a similar process, a certain quantity of camphor. The ripe seeds contain some amount of stearine, but I cannot learn that it is now extracted for any purpose." *Thw. En. Pl. Zeyl. p.* 252.

CINNAMON, Eng.

Darsini	Ar.	Tuj. Dalchini	Guz. Hind.
Tuj	Beng.	Kinnamon	Heb.
Theet kya boh	Burm.	Canella	It. Lat. Port.
Kanil	Dut.	Cinnamomum	Lat.
Cannelle	Fr.	Kainamanis	Malay.
Zimmet, Kanehl	Ger.	Kaimanis	,,
Kinnamomum of	Herod.	Kulit manis	,,
Katu karua	Maleal.	Rassu kurunday	Singh.
Dar chini	Pers.	Canela	Sp.
Dalcheni	,,	Carruwa puttai	Tam.
Darasita	Sans.	Karuwa	,,
Kakynnama	Singh	Sannalavanga putta	Tel.
Kurundu	,,		

Cinnamon is the bark of Cinnamomum Zeylanicum, *Nees von Esenbeck*, (*Laurus Cinnamoum*, Linn.), and the *True Cinnamon* of the shops. Cinnamon is the *Kinnemon* of Exod. xxx. 23 (see BibleCycl. ii. p. 210), and the *Κίνυμάωμον* of Herodotus, a name which he states the Greeks learned from the Phœnicians. The name seems derived from the Singalese *Kakynnama* (dulce lignum), or the Malay *Kaimanis*, which Mr. Marshall says is sometimes pronounced *Kainamanis*. (*v. Antiq. of Hind. Med.* 84 and 141.) Two varieties of cinnamon are known in commerce, that of Ceylon and Cayenne and the Chinese cinnamon, which is of far inferior quality, and often smelling most distinctly of bugs. A third species, considered by Fee to be the bark of the larger branches and trunks of cinnamon trees, grown in all sorts of soils and localities, is the Mato cinnamon of the Portuguese (Canella mata or plata) the wild canella of the Dutch; and the Kapoor Couroundou of the Ceylonese.

Ceylon has ever been the chief place of production. From the earliest period at which any record existed concerning the use of this spice, and which extends back to the days of the Roman republic, up to the year 1760, during the latter portion of the Dutch rule in Ceylon, cinnamon grew, in a wild state, amongst the thick jungles of the low and hilly country, the best always having been cut upon the light soil of the maritime provinces. The tree is found only in the western, southern and central provinces, and there appears little doubt that it was the abundance of cinnamon growing on the west coast of the island, which induced the first Portuguese settlers to fix the seat of their government at Colombo, a spot devoid of any harbour or shelter for shipping. In 1833 the trade in this article was thrown open to the public, and six years later the government commenced the sale of their preserved plantations by monthly auctions. In this way the whole of them, with but one exception, have been disposed of, chiefly to the British merchants and capitalists. The forests are still searched for the jungle cinnamon by the natives, especially when there happens to be a little better demand for the spice, but the quality of this sort is far below that of the cultivated bark, as much as three-fourths of it being generally devoid of any flavour or aroma. During the early part of the Dutch rule in Ceylon their yearly shipments amounted to 10,000 bales of 88 lbs. each, of which 2,000 were for India, Persia and Arabia. These latter places have long ceased to take any cinnamon, whilst the exports to Europe have been reduced to 7,000 bales of 100 lbs. in 1849, 6,000 bales in 1850, and 5,800 bales in 1851, although the selling price in the London market had been brought down to about one-third to that realized twenty years before. In 1835, the export duty in Ceylon was 2s. 6d., and 2s., according to quality ; it is now only 4d. per lb. on all sorts. Almost all the Ceylon cinnamon is sent to Britain, and in the five years 1846 to 1850, the average imports amounted to 251 tons, but Britain uses only about 14 tons and the rest is all re-exported. *Capper. Thwaites. O'Shaugh. Statist. of Commerce. Royle.*

CINNAMON STONE. One of the inferior gems. It is found in Ceylon. See Gems.

CINNAMUS. See Greeks of Asia.

CINNARA, are genii, and male dancers in Swarga, the heaven of Indra.—*Sir W. Jones, p.* 270, *p.* xiii. See Indra.

CINTA DE SEDA. Sp. Ribbon.

CINTRA ORANGE. Citrus aurantium.

CIOCCOLATA. It. Chocolate.

CIPOLLA. It. Onion.

CIRCAETUS GALLICUS, Gmel. The Common Serpent Eagle

C. brachydactylus. *Meyer.*

Sap maril	Beng.	Pamula gedda	Tel.
Mal patar	Can.	Rawul of the Wagri	
Samp mar	Hind.	Kondatelle of the Yerkali.	
Pambu Piandu	Tam.		

This Serpent Eagle is found in the south of Europe, North Africa, common all over India and Asia, has been killed in Denmark ; but never in the British Islands, prefers the open ground, questing like a harrier. It eats any creature, but snakes and lizards are its chief food, hovering in the air, and pouncing down suddenly like a stone. It seizes the snake by the head with its talons, and the snake often twines its body around the bird, and so encumbers it that it is occasionally so caught. *Jerdon.*

CIRCAR. In the mahomedan land revenue system, Circar is a sub-division of a Soobah. The N. W. Provinces of India, excluding the Saugor and Nerbudda Territories, comprise no complete soobah, but only portions of the four soobahs of Agra, Allahabad, Delhi, and Oudh. Each soobah was divided into a certain number of Circars, and each Circar into Pergunahs or Mehals, (which are used as equivalent expressions) and the Pergunahs again are aggregated into Dustoors or districts ; and as the Pergunah of the same Dustoor are of course always contiguous, the Dustoor statement in old Registers, if copied with any regard to correctness, frequently forms a very important means of the verification of doubtful names. Soobah is an Arabic word, signifying a head of money, or a granary. Circar is literally a chief, a supervisor. Dustoor, besides signifying a rule, is also a Minister, a moonshee. Pergunah means tax-paying land, as well as a perfume composed of various ingredients. The title of Soobahdar, or lord of the Soobah, is long subsequent to Akbar's time. Siphasalar was then the only designation of the Emperor's Viceroy in each Soobah. Under the British, the country known as the Northern Circars stretches for 470 miles from Orissa southward between the Eastern ghauts and the sea. It was not till A. D. 1476, that the mahomedans of the Decan extended their arms to the Northern Circars. At this time Oria, the rajah of what is now the Ganjam country, died without issue, and his adopted son Mungul Roy, and his cousin Humner (?) became competitors for the succession. During Mahmoud's time (in 1512), the Bahminee Dynasty was dismembered, and five Decanee kingdoms set up. The country now known as "The Northern Circars," fell under the dominion of the Kootub Shahee states, whose capital was Golconda or Hyderabad. That portion south of the Godavery became tributary without difficulty, Wistna Doe or Gajeputty, a powerful prince of Orissa, who ruled in Rajahmundry and Chicacole, withheld submission, and it was not till A. D. 1571 that his pretensions were lowered. The Northern Circars territory was occupied by the British in 1766.—*Elliot. Annl. Ind. Adm. Vol. XI.* 243.

CIRCASSIA, the Cherkas or Tcherkass of Asiatics, is on the northern face of the Caucasus. It contains many tribes of various appearance and dignity, some of whom allege an Arab descent, others are Tartars from Changish Khan. They divide themselves into three classes, princes, nobles, and vassals ; the latter, like the clans of Scotland, being faithfully attached to their chieftains. Their young women are famed for their beauty, and are sought for in the neighbouring kingdoms. They are brought up in simple and domestic habits by their mothers, are taught the use of the needle in decorative works, and to make their own clothes and those of the men of their family, and are otherwise very carefully reared.

Soon after a girl is born, her waist is encircled by a leathern bandage, sewn tight, and which only gives way afterwards to the natural growth of the child. It is then replaced by another; and so on, till the shape is completely formed, according to the taste of the country. On the marriage night, the husband cuts the cincture with his poignard. After marriage the women are kept very close, not even their husband's own relations being suffered to visit them ; but a man has no objection to allow a stranger to be alone with his wife. For it is a strict rule with the Circassians, never to be seen by a third person in the presence of their wives. Among other tribes of the Caucasus, and particularly that of the Kisty, when a traveller arrives at one of their abodes, the host orders one of his daughters to do the honours of his reception, to take care of his horse and baggage, to prepare his meals, and to remain with him. With the natives of a part of Lapland, not very far from Torneo, the wife of the host takes care of his guest during his sojourn under her husband's roof. The tribes seem to have been of dissimilar origin, but they are alike famed for the warlike habits of the men and the beauty of their young women. In the time of Selim I the Mamaluks were all slaves of pure Circassian blood. More recently, only the Borgite Mamaluks were of Circassian origin.—*Notice of Circassians, by Charles Touschin. Porter's Travels, Vol. I. p.* 141, 144. *Lond. As. Trans. Vol. I.* 98. See Kabarda.

CIRCLE, under the form of a winged circle, the Assyrians worshipped the supreme deity. The buddhist wheel of the law to be seen on the Caves of Ellora and Ajunta was probably borrowed from the Assyrians, as it reminds us of the wheel within wheel of Ezekiel.—*Cal. Rev.* 1868.

CIRCUMAMBULATION of sacred places, has ever been part of the ritual of worship of Asiatic nations. The mahomedan in circumambulation "Touaf," presents his left shoulder ; the hindu in Pradakshina walk round with the right side towards the fane or idol, and the buddhists turn similarly. The latter would appear to be the original form of the rite. Its conjectural significance is an imitation of the procession of the heavenly bodies, the motion of the spheres, and the dances of the angels. These are also imitated in the circular whirlings of the Dervishes. El Shahistani informs us that the Arab philosophers believed the sevenfold circumambulation to be symbolical of the motion of the planets round the sun. It was adopted by the Greeks and Romans, whose Ambarvalia and Amburbalia appear to be eastern superstitions, introduced by Numa, or the priestly line of princes, into their pantheism. And in Britain the processions round the parish preserve the form of the ancient rite.—*Burton's Pilgrimage to Meccah Vol.* iii. *p.* 204.

CIRCUMBARI, a small town in the Carnatic in L. 13' 39" N. and L. 79' 32° E. near Tripaty. It is 360 feet above the sea.

CIRCUMCISION.

Khutna, ARAB. | Soontan, HIND.

The Phœnicians had this rite in common with the Egyptians and the Jews, and they acknowledge having derived it from the former. According to Bunsen (iv. 273) it was not followed amongst the Phœnicians. The Egyptians and Jews were alike in the practice of circumcision. (Herodotus ii. 36.) It seems to have been a Semitic rite, which Abraham revived, for Abraham was 99 years old when he circumcised himself, Ismael his son was thirteen, and Isaac was one year old.

This rite is practised amongst all the Jewish people and most mahomedans. The prescribed time is in infancy, though the poverty of the parents and other circumstances sometimes retard its performance. It is performed with some ceremonial and in presence of the friends of the family. Amongst the people in the gulf of Carpentaria, all the males before the age of 12 or 14 years undergo this rite. This custom is not derived from the Macassars, the latter affirming that it existed previous to the commencement of their intercourse with the coast. But this singular custom is not confined to the tribes of the north-west horn of the Gulph of Carpentaria. Flinders observed a case upon the Wellesley Islands, and the custom is also prevalent amongst the natives of certain parts of the south coast of Australia. It will be difficult, perhaps impossible, to discover now the origin of this custom. Mr. Earl observes that a peculiar formation prevails among the aborigines of this part of Australia, and also of the adjacent coast of New Guinea, which renders the practice exceedingly conducive to comfort and health. The rite of circumcision is not once mentioned in the Koran. It is considered as an act of imitative practice, founded on the example of the disciples, but not on that of Mahomed himself. In Oman, on the shores of the PersianGulf, among the christians of Abyssinia, and in Egypt among the Arabs and Copts, the custom is prevalent. At Bosra and Bagdad, all the women of Arabian blood circumcise their daughters as well as their sons. At Kahira, the women who perform this operation are as well known as midwives. They are openly called into houses from the streets, without any secret being made of the intention with which they are invited. This is noticed by several mahomedan writers, viz., in the Dur-ul-

Mukhtar, the Tahtavi, and Fattah-ul-Muain, and according to the last book, it is the inner labia that are removed.—*Earl in Ethn. Lib. Vol. I. Niebuhr Travels, Vol. II.*, 250, 251. *Malcolm's Hist. of Persia, Vol. II*, p. 339. *Bunsen's Egypt*, iv, 273. *Herodotus lib. II*, 36.

CIRCUS, a genus of birds of the order Raptores or birds of prey, and sub-family Circinæ.

Circus æruginosus. ('Marsh Harrier.') Europe, Asia, N. Africa: very common in India. Migrates in Scandinavia.

Circus cyaneus. Hen Harrier of Europe, Asia, Africa: the American C. uliginosus barely, if at all, separable. In India common in the Sub-Himalaya region and its vicinity being replaced southward by C. Swainsonii (*Pallidus* of Sykes.)

Circus cineraceus (*C. Montagui*; 'Montagu's Harrier.') Europe, S. Asia, Africa: very common in India.

Circus Swainsonii (the *Pallidus* of Sykes) is regarded by Professor Schlegel as a local variety of *C. cineraceus*; had he said so of *C. cyaneus*, it would be more intelligible, as the affinity is much closer with *cyaneus*; nevertheless, both *Swainsonii* and *cineraceus* appear to be common throughout Africa, as both likewise are in India, inhabiting the same districts, and each remaining ever true to its distinctive characters; while *cyaneus* also inhabits the vicinity of the Himalaya, together with both the others. See Aves, Birds.

CIRE. Fr. Wax.

CIRE A CACHETER. Fr. Sealing Wax.

CIRE D'ESPAGNE. Fr. Sealing Wax.

CIRRHADÆ. In the Sanscrit tale of the Hero and the Nymph occurs the word Vedhaka; in some copies Rechaka is explained to be a Kirata, a forester, and the Kirata were known to the classical geography of ancient Europe as the Cirrhadæ or Cirrodes. They were the occupants of Sogdiana near the river Oxus. The term Kirata, however, seems to have been general and applied to the savage mountain, non-Aryan, tribes, to whom the Aryan races were opposed. Some of them were in the south of the peninsula on the Coromandel coast.

CIRRHIPEDIA. Of this class of Molluscs the Balanus, or barnacle, occurs in India.

CIRRHOPETALUM, a genus of plants of the order Orchiaceæ. In India are C. albidum, caudatum, cæspitosum, cornutum, fimbriatum, grandiflorum, Lindleyanum, Maccræi? macrophyllum, Neilgherrense, Roxburghii, Walkerianum.

CIRSIUM ARGYRACANTHUM, C. horridulum and C. lanceolatum, flowering plants belonging to the order Matricariaceæ.

CIRRODES. See Cirrhadæ. Kabul, p. 434.

CIS. A Latin word in use amongst geographers of Europe, to indicate a country on the hither side of rivers or mountains, as Cis-Himalaya, Cis-Indus, &c.; Trans, another Latin word, is used to indicate the further side, as Trans-Indus, &c.

CISSAMPELOS, a genus of plants of the natural order Menispermaceæ. C. convolvulacea occurs in Dindigul, Rajmahal and Nepaul; Cissampelos obtecta, of the Garhwal mountains, yields an ardent spirit in distillation. For notices of C. capeba, C. glabra, C. hernandifolia, C. hexandra, and C. tetrandra. See Pareira brava.

CISSAMPELOS DISCOLOR. Wal. Syn. of Clypea Burmanni, *W. and A.*

CISSAMPELOS PAREIRA. Linn.

Pareira	Eng.	Weni wæla	Singh.
Duk-nirbisee	Hind., N. W. P.	Pata	Tel.

The extract of Pareira is a valuable astringent diuretic, in doses of twenty grains dissolved in water thrice daily. The extract of nemooka, C. hernandifolia, affords a good substitute for this useful article. An infusion of nemooka is also made. In its use and dose, it is the same as the infusion of Pareira, for which the nemooka is an efficient substitute.—*Beng. Phar.*, p. 302.

CISSA, a genus of birds of the Jay magpies, the sub-family Garrulinæ and order Insessores. Two species occur in India. Cissa pyrrhocyanea, and C. puella, Blyth. J. A. S. XVIII, 810; *C. Pyrrhocyanea* (Wagler), Gould's 'Birds of Asia,' pt. I. C. puella, writes Dr. Kelaart, is perhaps the handsomest bird in Ceylon. It is rather numerous about Newera Elia, but not seen in the low country. It is distinguished not less by the beautiful blue colour which enlivens its plumage, than by the elegance of its form and the grace of its attitudes. It frequents the hill country and is found about the mountain streams at Newera elia and elsewhere.—*Tennent's Sketches of the Natural History of Ceylon.*

CISSIA. A town mentioned by Herodotus, is the Susiana of Strabo, and the modern Khuzistan. See Khuzistan.

CISSUS. A genus of plants of the natural order Ampelideæ. C. adnata, C. auriculata, C. carnosa, C. edulis, C. quadrangularis occur in India.

CISSUS ARBOREA. Forsk. Syn. of Salvadora persica, *Linn.*

CISSUS CARNOSA. Lam.

C. capreolata ? | Vitis carnosa. *Wall.*

Karik	of CHENAB.	Vallur	of BEAS.
Amal-bel	,,	Gidar dak	of RAVI.
Drakri of	BEAS.		

A pretty climber, growing in the plains of the Punjab and in the valleys of the N. W. Himalaya, from 2000 to 8000 feet. It is eaten by camels; and in Jummoo the root, ground with black pepper, is applied to boils.—*Dr. J. L. Stewart.*

CISSUS EDULIS, the square stemmed vine, grows in Ceylon. Its stem, like that of the Vitis Indica when freshly cut, yields a copious draught of pure tasteless fluid, and is eagerly sought after by elephants.—*Tennent.*

CISSUS QUADARANGULARIS. WALL.

Vitis quadrangularis. *Wall.*

Nillur ki binj	DUK.	Perrandei coddi and elley	TAM.
,, ,, paat	,,	Nulleru tige vitulu, and aku	TEL.
Harjora	HIND.		
Vajra valli	SANS.		

Stems four angled, winged and jointed ; it has all the properties of a parasite ; the stems are succulent, and beaten up into a paste, are given by the natives for asthma.—*Riddell.*

CISSUS SETOSUS. ROXB. Syn. of Vitis setosa, *Wall.*

CIS-SUTLEJ STATES. By the treaty with the sovereign of the Punjab, Runjeet Sing, of the 26th April 1809, he undertook not to make or allow any encroachment on the states on the left bank of the Sutlej. The largest of these were

Puttiala.	Kulsiah.	Dzalgurh.
Jheend.	Maleir Kotla.	Mumdot.
Nabha.	Furreedkot.	Raikot.

Patiala was formed by a Jat family, of the Sikh religion, who emigrated from the Manjah, about five generations back. The area is 5412 sq. m. with a population of 1,586,000, and a revenue of Rs. 30,00,000.

Jheend territory has an area of 1236 sq. m. and a population of 311,000 souls, with a revenue of four lakhs of rupees. The maharajah is a Jat, of the Sikh faith, and of the same descent as the maharajah of Patiala. In 1857, this chief was the first person who marched against the mutineers at Delhi.

Nabha territory has an area of 863 sq. m., a population of 276,000 souls, and a revenue of four lakhs. The chief is of the same stock as the maharajahs of Patiala and Jheend, but is the elder branch of the family. The family behaved ill in the Sikh war of 1845-6, but did well in the revolt of 1857, and were rewarded by a grant of land out of the Jhujjur territory.

Kulsiah territory has an area of 155 sq. m., and a population of 62,000 souls with a revenue of Rs. 1,30,000. The family came from the village of Kulsiah in the Manjha.

Maleir Kotlah has 156 sq. m., with a population of 46,200 souls, and a revenue of one lakh. The family came originally from Kabool.

Fareed Kot consists of Fareed Kot proper, and Kot-kupoorah, is S. W. of Ferozpur, borders to the S. E. on Patiala. It has an area of 643 sq. m. and a population of 51,000 souls, with a revenue of Rs. 75,000.

Mumdote is a mahomedan chieftaincy, and was re-established in 1863.

The minor Cis-Sutlej chiefs were deprived of their sovereign powers, and the police management of their estates was assumed by the British Government, all customs duties were abolished without compensation, except in the case of the Nawab of Konjpoora and the mir of Kotahar, and the chiefs were reduced to the rank of ordinary jaghiredars. These were eighty in number, with revenues varying from Rs. 250 to Rs. 71,900.

CISTACEÆ, the Rock-rose tribe of plants; one genus is the Helianthemum.

CISTICOLA CURSITANS. FRANKLIN. The Grass warbler of Ceylon, C. schœnicola, Bonap. That from Algiers is undistinguishable from Indian specimens, unless it be that the average size is rather larger, and the black upon the crown predominates more. If procured in India, this Algerian specimen would scarcely be remarked even as a slight variety.—*Mr. Blyth's Report.*

CISTICOLA OMALURA, and C. ruficeps. See Birds.

CISTI TREES. The Cytinus hypocistus. See Balanophora.

CISTUDO, a genus of reptiles of the family Chelonia, of which C. Amboinensis occurs in Amboyna, C. dentata in Java, and C. trifasciata in China. See Reptiles.

CITA-MERDU. MAL. Menispermum cordifolium.

CISTE also LADENIFERE. FR. Ladanum, or Labdanum.

CITHERN. ENG. A musical instrument, supposed to have obtained its name from the Sih-tara, the three stringed lute of the East, supposed to be the source of the word guitar.

CITRACEÆ, or Aurantiaceæ, Citron Worts, or the Orange Tribe, are dicotyledonous polypetalous plants, and the Orange, Lemon, Lime, Shaddock, Pompelmoose, Forbidden Fruit, and Citron are the produce of this order. The Wampa, a fruit highly esteemed in China and the Indian Archipelago, is produced by Cookia punctata. The fruit of Glycosmis citrifolia is delicious, and that of Triphasia very agreeable. The Ægle marmelos is used in medicine and a perfume is made from its rind.

CITRIC ACID. ENG.

Lime Juice	ENG.	Agro o sugo de limone	IT.
Jus de limon	FR.	Acidum citricum	LAT.
Zitronon saft.	GER.	Jugo de limon	SP.

This occurs in commerce either in the form of the pure juice of lemons and limes, or crystallized by a chemical process.

CITRINE MYROBALAN. Terminalia citrina. See Myrobalan.

CITRON. ENG. Citrus medica, *Linn.*

Beg poora	BENG.	Turanj	HIND.
Sukkat	DAN.	Confetti di cedro	IT.
Citronat verd	FR.	Acitron verde	SP.
Succade	GER.		

The citron is cultivated in many parts of India. It grows freely in Pegu and Tenasserim, and Dr. Mason met with citron trees in the jungles apparently indigenous. The fruit however is much inferior to the Bengal citron.—*Mason.* See Citrus medica. Citrus limonum.

CITRONE. GER. Limes.

CITRONELLA GRASS. See Andropogon; Citronella oil.

CITRONELLA OIL, is described by Simmonds as a product of the Citronella grass, which grows in the southern provinces of Ceylon, and about Galle, several estates in the neighbourhood of which city are cultivated with it. The exports of this oil from Ceylon, in the three years 1850 to 1852, were

Year.	Ounces.	Value.	Year.	Ounces.	Value.
1850	80,048	£3,344	1852	131,780	£2,806
1851	114,959	3,742			

Simmond's Comm. Products, Page 513.

CITRONIER. FR. Limes.

CITRULLUS COLOCYNTHIS. SCHRD.

Cucumis colocynthis. *Linn.*

Hanzal	ARAB.	Maqal	HIND.
Makhal	BENG.	Veku matti	MALEAL.
Indrawan	DUK.	Pari Kumati	TAM,
Colocynth plant	ENG.	Patsa kaia,	TEL.
Bitter apple	,,	Chitti papara	,,
Pakyoth and Wild Gourd of Scripture	,,	Eti puchcha	,,
Kolukunthois	GREEK.	Verri puchcha	,,
		Papara budama	,,

Grows in the peninsula of India, Kamaon, near the Jumna and in Japan.—*Roxb.* iii, 719.

CITRULLUS CUCURBITA. SCHRÆD.

Cucurbita citrullus L. | Cucumis citrullus.

Pha Rai	BURM.	Turmuz	HIND.
Water melon	ENG.	Turbuz	,,
Hindwana	PANJ.	Mathira	PANJ.

Cultivated throughout the south and east of Asia. In the Punjab plains, if not really wild, it is apparently so, and covers the ground for miles in sandy deserts near Sirsa, and in the Sind Sagur Doab, ripening in the cold weather.—*Roxb.* iii, 719, *Dr. J.L. Stewart.*

CITRULLUS. FISTULOSUS. STOCKS.

Tind,	HIND.	Dilpasand,	HIND.
Albinda,	,,		

A small round gourd commonly cultivated along the line of the Indus from Lahore to Sind; said to be merely a cultivated variety of C. cucurbita. It is cooked as a gourd, and has a pleasant flavour when young.—*Dr. J. L. Stewart.*

CITRUS, a genus of plants of the natural order Citraceæ, several species of which grow wild, or are cultivated in the south and east of Asia, and all of them furnish useful products. C. aurantium, of Risso, yields its fruit, the orange; one essential oil from the rind; another from the flowers, the oil of neroli, and the wood is also of value in the arts. Citrus decumana of Linnæus furnishes the valuable pumalo or shaddock fruit, and the Cum-quat fruit of China is from the Citrus olivæformis. The lime fruit of the Citrus limetta of Risso, is valuable for its juice, the lime juice which is used, as a preservative from sickness; and the Citrus limonum of Risso furnishes the useful lemon fruit, the rind of which yields an essential oil, or is used in cookery as lemon peel, while the juice of the fruit forms a source of the lime juice. Independently of the historical fact that citrons and lemons at least were obtained from the Persians, it is certain from the researches of Wallich and other Indian botanists, that it is among the lower ranges of the hills in Nepaul, and extending most probably into China also, that the wild plants of the genus *Citrus* find a home.

CITRUS AURANTIUM. LINN.

C. nobilis, *Lour.*

The tree and fruit.

Narang	AR.	Jeruk	MALAY.
Naranj	,,	Madra also cherru narranji	MALEAL.
Kanda Nibu ?	BENG.	Naranj	PERS.
Lieng man	BURM.	Pomeranzen	RUS.
Sung zen	,,	Swadu naringa	SANS.
Orangen	DUT.	Nagrauga also jambiia	,,
Orange	ENG.	Narangas	SP.
Common or sweet Orange	,,	Kitchili cheddi	TAM.
Oranges	FR.	Kolinjy cheddi	,,
Pomeranzen	GER.	Kamala phallæ	TEL.
Narangi	HIND.	Narija chettu	,,
Konla	,,	Kichidi chettu	,,
Melaranee	IT.	Kittali kaya	,,
Simao manis	MALAY.	Narangamu	,,
Jeruk manis	,,		

The orange is not mentioned by the ancient authors, either of Europe or Arabia, and is supposed to have been introduced into Europe after the middle ages. Dr. Royle states that the orange and lemon are natives of India, the orange being found on the Neilgherries, on the borders of the Sal forests of Sylhet, and, perhaps, also in China. Mr. W. Elliot states that a very small variety of the orange ("Ida-chettu, TEL;" "Chota kichili, HIND;" "Ki·i kittali, CAN;" which is the C. variatro of Heyne, 57 Musk orange) grows both cultivated and wild in all the hilly country of the Circars; and, he asks, if it be the original of the cultivated Citrus aurantium. The orange tree is extensively cultivated. The finest sorts are the Cintra, Cowlah, and a small sweet orange which grows on a tree more like a creeper. The principal method of culture is by budding, the stocks generally being either seedlings or cuttings from the sweet lime. The best Cintra, with a thin close rind, is produced upon the seedling stock, and it is said that the fruit grown upon the sweet lime stock is generally close and soft: this is very perceptible with some of the oranges. The best time for budding is in the cold season. The leaves are rather bitter, and contain essential oil. A still more fragrant oil, called oil of *neroli* by the perfumers, is afforded by the flowers. The berries while unripe are gathered, dried, and turned in the lathe to the size of peas, and are used in issues on account of their fragrant odour. The rind or peel of the orange is bitter and aromatic, and affords a very useful stomachic tincture and syrup. The juice of the ripe fruit contains sugar, malic and citric acids, citrate of lime, mucilage, albumen and gum. Like the lemon juice it makes an excellent cooling drink, and is an invaluable specific in the treatment of scorbutic diseases. The seeds of the orange yield oil by expression, but not available in any quantity.—*O'Shaughnessy. Eng. Cyc.*, p. 1120. *Voigt, Elliot, Ainslie, Royle, Riddell.*

CITRUS BERGAMIA. RISSO and POIT. *Roxb.*; *W. and A.*

Citrus limetta, *D C.*	Citrus acida. *Roxb.* iii. 390.

Nibu	BENG.	Limu, Nimbu	HIND.
Than-ba-ya	BURM.	Eru mitchi narakam	MALEAL.
Shouk	,,	Nimbooka	SANS.
Limboo	DUK.	Dehi	SINGH.
Acid lime	ENG.	Elimicham	TAM.
Bergamotte lime	,,	Gajanimma	TEL.
Lime	,,	Nimma chettu	
Common lime	,,	,, Pandu	,,
Sour ,,	,,	Jambira Nimma	,,

Grows in Peninsular India, Bengal, Assam, Sunda and Molucca Islands. There are many varieties, round, small, spongy, smooth, thick skinned and yellow juiced. The Arab variety from Muscat is large. Large varieties of the acid lime are diffused all over the Tenasserim Provinces; and Europeans usually call them citrons, but the trees are easily distinguished by their leaves, as the leaf of the citron is simple, while that of the large lime is winged. The varieties known in Hindustan are:

Pati-Neboo, common round lime.
Gora ,, thick-skinned, small oval lime.
Khaghazi neboo, long, small lime.
China-gora ,, China lime, yellow juiced lime.
Kamurali neboo, large, oval, smooth skinned lime.
Rungpore neboo, round, smooth-skinned lime.
Taba neboo, a large globose spongy-skinned lime.

Drs. Roxb. Mason, O'Shaughnessy. Voigt.

CITRUS BIGARADIA. DUHAMEL.

C. Bigaradia		Citrus vulgaris.	
Mae Fadyn	AR.	Seville orange	ENG.
Bitter orange	ENG.		

It also yields the Neroli oil.

CITRUS DECUMANA. LINN.; *W. and A.*; *Roxb.*

Bator niou	BENG.	Bambali naringi	MALEAL.
Batavi ,,	,,	Paravata	SANS.
Batabi ,,	,,	Maha naram	SINGH.
Shouk tung	BURM.	Jamboola	,,
Chucotrah	DUK.	Pumpalimas cheddi	TAM.
Pumplemose	ENG.	Bambalimas	,, ,,
Shaddock	,,	Bombarimasa chettu	TEL.
Pummalo	,,	Pampara panasa	,,
Chakotra	HIND.	Pulla pampara panasa (acid *var*)	,,
Poomplemoos	MALAY.		

This is the shaddock of the West Indies. It is the largest of the orange tribe, and is largely cultivated in Southern Asia in gardens; the varieties are red and white, the former being preferred by some persons. The tree grows to a large size in a rich soil, and requires much pruning; the best time for doing this is when the crop of fruit is off; fine fruit has been produced from the seed. The tree, when planted, should have a space of twelve feet all round it: the blossom is used for flavouring sweetmeats. It is a fine fruit, cooling and aperient, and in taste somewhat resembles a fine orange.—*Ainslie, p.* 231. *Riddell. Mason. Roxb.* iii, 393.

CITRUS GALGALA. At Lahore, a species of lemon the size of a double fist, called Galgala, is pickled for domestic use and much eaten by the natives.—*Honiberger, p.* 258.

CITRUS JAPONICA. The "Kumquat," is extensively grown by the Chinese in pots and at one season of the year the plant is literally covered with its small, oval, orange-coloured fruit. This, as well as various other species of the orange, is mixed with the forced flowers, and together produce an excellent effect. It is grown in Chusan, in groves, on the sides of the lower hills. The plants are all arranged in rows about four feet apart, average three or four feet high, and do not exceed six feet. Mr. Fortune thinks if the "kumquat" were better known in Europe, it would be highly prized for decorative purposes during the winter months. It is much more hardy than any other of its tribe; it produces its flowers and fruit in great abundance, and it would doubtless prove a plant of easy cultivation. In order, however, to succeed with it as well as the Chinese do, one little fact should be kept in view, namely, that all the plants of the orange-tribe which bear fruit in a small state are grafted.—*Fortune*, *p.* 122.

CITRUS LIMETTA. RISSO and PORT.

Citrus limetta *Risso*.	*D. C.*	Citrus hystrix	*D. C.*
Sweet lime	ENG.	Mitha Neboo	HIND.

The sweet lime of the Moluccas, but cultivated in India.—*Roxb.* iii, 392.

CITRUS LIMONUM. RISSO.

Citrus medica. *Roxb.*

Lemon	AR.	Limonen	GER.
Nimbuka	BENG.	Korna Nebu	HIND. BENG.
Nibu	„	Limoni	IT.
Lembo	„	Nimbu, Limu	PERS.
Lieng maw	BURM.	Limoes	PORT.
Limoenen	DUT.	Limonii	RUS.
Lemon	ENG.	Jambira	SANS.
Citron, Limon	FR.	Limones	SP.

The Peel.

Lemon Peel	ENG.	Zitronschellen	GER.
Lames d'ecorce de citron	FR.	Scorze de limone	IT.
		Cortezas de citra	SP.

Dr. Royle found this tree, apparently wild, at the foot of the Himalaya mountains. It grows also in the Garo hills, but it is extensively cultivated; its fragrant white flowers are tinged with red.

The essential oil obtained from lemons is yellow, light, very volatile. It is prepared by rasping the lemons until the oil-vesicles are removed. These are then pressed between glass plates, and the expressed juice allowed to stand till the impurities subside. This oil is composed of 10 atoms carbon and 8 atoms hydrogen, (citrene). If a current of muriatic acid gas be passed through it at a low temperature, it concretes into a solid mass of neutral crystals, containing one atom of muriatic acid, and forming a salt called muriate of citrene. This oil is used chiefly to give flavour to various medicinal mixtures, and is seldom or never employed by itself. Its rind, called *Lemon peel*, is of a pale yellow colour, rough, dotted, odorous, and bitter; it is used principally, like the oil, for imparting its aromatic taste to medicines, and as a gentle aromatic stimulant. Its juice, the *Lemon juice* of commerce, contains nearly 2 per 100 of citric acid, water 97½, the remainder being gum, malic acid, and extractive matter. In scurvy, lemon juice has long been esteemed as a certain specific. As it is difficult to preserve the juice on long voyages, citric acid and the essential oil have been in several cases substituted for the juice itself. It is a most grateful and useful material for the preparation of cooling drinks.—*O'Shaughnessy. Royle. Roxb.* iii. 142. *Voigt*

CITRUS MADURENSIS. LOUR.

C. inermis.	*Roxb.*	Limonellus Madurensis. *Rumph.*

A cultivated shrub of China, Moluccas, and Cochin-China, with white and fragrant flowers.—*Voigt.* 437.

CITRUS MEDICA, ROXB.; *Linn.*; *W. & A.*

Citrus limonum. *Risso.*

Limon.	AR.	Madalam palum.	TAM.
Atraj.	„	Dadimba chettu.	TEL.
Utrej.	„	Madiphalla also Lungamu.	„
Korna nibu.	BENG. HIND.	Daba chettu.	„
Beg pura.	„	Nara-dabba.	„
Shouk-ta-khwa.	BURM.	Dabba Madiphala chettu.	„
Turanj.	DUK. PERS.	Pedda nimma chettu	„
Citron.	ENG. FR.	Gaja nimma	„
Bejoura, limu.	HIND.	Pulla dabba.	„
Jeruk ? Lemon Sussu.	MALAY.	Bija puramu.	„
Bega-pura.	SANS.		
Matulunga.	SIAM.		

Grows at the foot of the Garrow hills but is cultivated and grows to a large size; the outer rind very rough and covered with excrescences, and when ripe of a deep yellow colour and fragrant; used to form a preserve, and the juice is made into lemonade. It is propagated by cuttings, layers, or seed. A Chinese variety has been named C. digitata.—*Voigt.* 142. *Roxb.* iii. 392. *Riddell.*

CITRUS MONOPHYLLA. Grows wild along the Western Ghauts of the peninsula of India.—*Riddell.*

CITRUS NOBILIS. LOUR. Syn. of Citrus aurantium, *Linn.*

CITRUS TOROSA. Grows at Tavoy with a leaf that looks like two leaves joined together, the wings on the petiole being as broad, or even broader, than the leaf itself. The fruit is small, and there are two varieties, one with a smooth, and another with a rough skin. Mr. Mason does not find it noticed in any of our Indian Floras, but Dr. Pickering met with a similar tree on the Samoan Islands, a member of the Philippine Floras.—*Mason.*

CITRUS TRIFOLIA. A native of China, and the fruit is about the size of a marble.

CITRUS VULGARIS.

Bitter Seville orange	ENG.	C. Bigarradia *Duhamel.*

The leaves differ from those of the sweet orange by the petiole only. The flowers are alike in both species. The rind of the fruit is bitter, acrid, and hot to the taste, the pulp acid and bitter, the seeds excessively bitter. The bark of the tree participates in these qualities. The rind of the fruit is used in making the celebrated liqueur "Curacoa."—*O'Shaughnessy.*

CITRUS WOOD of the Romans was extravagantly prized for tables, and is supposed to have been the Callitris quadrivalvis, *Vent*, or jointed arbor-vitæ, the conifer which yields the gum sanderach. The wood was distinguished as striped, "tigrinæ;" spotted "pantherinæ;" or speckled "apiatæ;" Cicero gave £9,000 for a Citrus-wood table.

CITTURA CYANOTUS, is the forest king-fisher of Celebes; along with it occur the Meropogon Forsteni, Carpophaga Forsteni, a fruit pigeon of North Celebes. Buceros cassidix, the great horn-bill of Celebes. Trichoglossus ornatus, a beautiful brush-tongued paroquet. Corvus advena, a rare black and white crow.

CITY of the Willows, name of a secret society amongst the Chinese. It is political.

CITYSUS CAJAN. LINN.; *Roxb.*; *Willde.* syn. of Cajanus Indicus, *Spreng.* *W. A.*

CIVET. ENG. DUT.

Zabad.	AR.	Rase; kusturi.	MALAY.
Ashbutchegan.	„	Dedes; kasturi.	„
Jund bedushtar.	„	Jabad.	„
Bivergeil.	DUT.	Castoreo.	PORT.
Javad,	DUK.	Babuwaja struga.	RUS.
Civette.	FR.	Kasturi.	SANS.
Zibeth.	GER.	Ghenda-malay-alubeeyum,	„
Biber-geil.	„		
Gond-badustar.	HIND.	Algalia.	SP.
Castora: zibetto.	IT.	Kasturi, Munai.	TAM.
Dedes.	JAV.	Pullughoo-shuttum,	„
Castoreum.	LAT.	Kasturi.	TEL.

The civet perfumes of commerce are obtained from two sources. One of the civets is a concrete substance obtained from two small bags in the preputial follicles of the beaver, Castor fiber, of both sexes. This is the Civet Castor of North America, and is imported into India for medicinal purposes. A kind of castor or civet is also obtainable from the civet cats. Civet is used in perfumery, and has a powerful scent, resembling musk and ambergris. The civets (Viverra), a genus of carnivorous animals, approach nearest in their form and habits to the fox and the cat. But the distinctive character of the civets consists in an opening near the tail, leading into a double cavity of considerable size, furnished with glands for the secretion of this odorous substance. When the secretion is in excess, the animal frees itself from it by a contractile movement, which causes the civet to ooze from the bag. This is carefully collected and sold (not without adulteration with butter or oil, to increase its weight) at a very high price.—(*O'Shaughnessy*, *p.* 614. *Eng. Cyc.*) In Malay and Javanese this perfume is known by the native names of rase and dedes, but the Sanscrit Kasturi and the Arabic zabad corrupted jabad, are also used as synonyms, and doubtless the Dakhani Javad, Malay, Jabad, Eng. Civet, French Civette, and German Zibeth, are all from the Arabic Zabad. In the Eastern Archipelago, this article is produced by two distinct species of Viverra, V. rase and V. zibetha, which are kept in a half domesticated state for the purpose of yielding it. The first is a native of Java, and the last of the other large Eastern islands, where the natives of rank are great consumers of this perfume, a not generally acceptable one to Europeans.—(*Crawfurd Dic.*, *p.* 100.) A variety of this termed Poollughoo Shuttum, *Tam.* Javad, *Duk.* Civet Cat Perfume, *Eng.* Ghendamaly alubeeyum, *Sans.*, is an inferior sort of Musk bag procured from a species of civet cat, V. zibetha, found in many parts of lower Hindoostan. This animal is called in Tamil, Poollughoo poonay, and in Telugoo, Poonghoo pillie. The article is chiefly used by the people as a perfume and in the preparation of certain liniments.—(*Ains. Mat. Med. p.* 192.) These animals are carefully kept and tended in North Africa, for the sake of the perfume: they are also common in South America and in the forests of Japan. Civet contains free ammonia, resin, fat, and extractiform matter, and a volatile oil to which its odoriferous properties are due. It is imported into England from the Brazils and from Guinea. When genuine, it is worth from 30 to 40 shillings an ounce. The civet cats of the south east of Asia are as under,

Viverra Malaccensis......Gmelin.
rasse... ... ...Horsfield.
gunda...... ......Buchanan Hamilton MSS.
Indica...... ......Geoffroy.
Bengalensis... ...Gray: Illustr.
pallida... ... .Gray: Illustr.
Genotta Manillensis......Eydoux.

The odoriferous substance which the Indian civet-cats secrete is identical with civet, though not the civet of commerce of Europe. This species is not infrequently found in the Burmese villages, and its secretion enters into the Burmese Materia Medica. In Burmah Mr. Mason says there are,

V. zibetha, Linn.	V. orientalis, Hodgson.
„ undulata, Gray.	„ civettoides „
„ melanurus, Hodgson.	

Another species of civet-cat, the Burmese call "horse-cat," from the mane on its neck. —*Mason. Ainslie. Tomlinson. Crawfurd. O'Sh. McCulloch.*

CIVETTE. FR. Civet.

CLADANTHUS ARABICUS. Small dwarf plants, bearing yellow flowers.—*Riddell.*

CLAM. ENG. A mollusc of the genus Tridacna, common in many parts of the world. There are six recent and one fossil species known, and the great clam shell of the Archipelago is used in Europe for church fonts.

CLANGULA GLAUCION. (*Fuligula clangula*; 'Golden Eye.') This bird takes the circuit of the northern regions, N. Africa, Sindh, Punjab. See Birds.

CLANSHIP, somewhat resembling the form it assumed in Scotland, prevails amongst several of the Afghan and Baluch races, where the adjoining tribes have not as yet amalgamated into nationalities. Moral worth, national pride, love of country, and the better feelings of clanship, are the chief grounds upon which a great people can be raised. These feelings are closely allied to self-denial, or a willingness on the part of each man to give up much for the good of the whole. By this, chiefly, public monuments are built, and citizens stand by one another in battle ; but all these are wanting from most of the races occupying British India at present. Many of the rajput races are in clans, and mahomedanism has given a bond, but even it is not strong, and China has two distinct races, the Chinese and the Tartar wholly separate in civilization and in aspirations.—*Sharp's History of Egypt, Vol. I.*, *p.* 278.

CLARET. Eng. A term generally used to designate the red wines, the produce of the Bordelais. The most esteemed are Lafitte, Latour, Chateau-Margaux, and Haut-Brion. In France, *Claret* is a general name for all rose coloured wines, and what the English call Claret is styled Bourdeaux.

CLARIFIED BUTTER. Ghee. Hind.

CLARKIA, a genus of exotic flowering plants, handsome annuals, which make a showy display in flower borders, their colours are rose, white and purple, they ripen seed in abundance which may be sown in any good soil. C. elegans and C. pulchella are both from California.

CLARO-BABUYAN, one of the Babuyan or Five Islands of the Archipelago.

CLATHRARIA. See Dracæna.

CLAUDIUS CÆSAR. The first authentic account of Ceylon or Taprobane is given by Onesiculus, the Macedonian admiral, who lived B. C. 329, or 330. Diodorus Siculus, B. C. 44, gives an account of it. Strabo also mentions it, and Dionysius, who flourished A. D. 36, confirms former accounts, and alludes to its elephants. Sinbad also speaks of it in the volume, perhaps a compilation and in part a romance, as does Abdoor Razak. Ribeiro also gives a notice of it. In the reign of Claudius Cæsar, a Roman publican, who farmed the custom duties of the Red Sea, was driven from Arabia by storms on to Ceylon, where he found a flourishing kingdom and an enlightened sovereign, whom he persuaded to send an embassy of four envoys to Rome, by way of the Red Sea, for the purpose of negotiating a commercial treaty.

CLAUSENA. A genus of plants belonging to the natural order Citraceæ. They are shrubs or small trees, and were classed by Roxburgh under the generic name of Amyris. C. heptaphylla, *W. and A.* Karun-phul, *Hind.* grows in Bengal, has small flowers, greenish yellow, and anise scented, and its bruised leaves have the fragrance of fresh anise seeds. C. nana grows in the Moluccas, C. punctata, and C. suffruticosa, grow in Chittagong, and the fresh leaves of C. Sumatrana, when bruised, have the fragrance of a lemon leaf. C. Wildenowii *W. and A.*, grows near Chingleput, and C. pubescens, *W. and A.* in the Peninsula.—*Voigt.* 140,147. *Roxb.* ii, 248-251.

CLAVILLOS. Sp. Cloves.

CLAVOS. Sp. Nails.

CLAY. Eng.

Chomar	Heb.	Tannab (white clay)	Malay.
Gil	Hind.	Saugi-i dalam (fire clay)	Hind.
Chikni mitti	,,		

CLAY, a compound, or perhaps only a mixture, of the two earths, alumina and silica, with water ; clay is an essential ingredient in all fertile soils. The following are some of the common varieties of clay :—

1. *Pipe-clay.* Namum, *Tamil* ; Khurra, *Dukhanee.* This is of a greyish white colour, with an earthy fracture, and a smooth greasy feel ; it adheres to the tongue, and is very plastic, tenacious and infusible. When burnt it is of a cream colour, and is used for tobacco-pipes and white pottery. This is found in abundance in several parts of lower India and is used for nearly the same purposes that it is in Europe. The different castes of hindoos, too, employ it for making the distinguishing marks on their foreheads, and (moistened with water) it is often applied round the eye, in certain cases of ophthalmia, as well as to parts of the body that are bruised.

2. *Potter's clay* is of various colours, chiefly reddish or grey, and becomes red when heated. Mixed with sand it is formed into bricks and tiles. This is abundant in many parts of Southern and Eastern Asia.

3. *Stourbridge clay* resembles potter's clay to a certain extent, but is far more refractory in the fire. It is of a dark colour, owing probably to the presence of carbonaceous matter. It is extensively used in making crucibles, glass pots, &c.

4. *Brick-clay* or *loam* also abundant in Southern and Eastern Asia. It varies greatly in appearance, texture and composition ; its colour depending on the proportion of oxide of iron contained in it.

5. *Porcelain clay*, the "Kaolin" of China, is very abundant in Southern and Eastern

Asia. The clays of Tenasserim have not been analyzed, but there are clays at the bases of some of the granite mountains, where the felspar has decomposed so much, that the paths are thick with a coarse quartzose sand and a few grains of mica that remain. Porcelain clay is produced by the decomposition of felspar.

6. *Fire clays,* Sang-i-dalam, *Pers,* are procurable at Streepermatoor, Tripasoor, Chingleput, Metapolliam and Cuddapah. Indeed are very common in many parts of India, and bricks can be made that resist the action of great heat. A clay is found at Beypore, 20 to 30 feet below the surface, and is used for fire-bricks and for lining furnaces.

7. *Unctuous clay* is excavated from a pit, near Kolat'h, in large quantities, and exported as an article of commerce, giving a royalty of Rs. 1500 yearly. It is used chiefly to free the skin and hair from impurities, and the Cutchi ladies are said to eat it to improve their complexions.—*Tomlinson. Drs. Mason and Hunter. Tod's Rajasthan, Vol. II., p.* 203.

CLEAN and UNCLEAN, terms often occurring in Scripture, Lev. xi. 33 ; xii. 2, has reference to unclean creatures, unclean persons and personal uncleanness. As in that after childbirth, (in Lev. xii. 2) a brahman mother is unclean for eleven days, a princess sixteen, merchant's wife seventy-one, and a Vellala Sudar thirty-one days. As with the Hebrew women, the hindoo mother who is in her days of uncleanness, cannot touch any hallowed thing nor any domestic article. When the days of her purification are over, she takes or sends an offering to the temple. In the matter of clean and unclean things and persons, the mahomedans follow the Mosaic law.

CLEARING NUT. Eng. Strychnos potatorum.

CLEGHORN, Dr. Hugh. A medical officer of the Madras Army, a learned botanist, contributor to scientific journals of many articles on botanical subjects. Conservator of forests at Madras. He wrote on the hedge plants of India, and the circumstances which adapt them for special purposes in particular localities. (Rep. Brit. Ass. 1850.) On the grass cloth of India. Ibid, 112. On the physical effects of the destruction of tropical forests, Ibid, 1851 ; London Athenæum, 1851, 781. Also on the Forests and Gardens of Southern India, and made a report in 1864, upon the forests of the Punjab and the Western Himalaya.

CLEMATIDÆ. The name is derived from Clema, a vine branch, from the climbing properties of the family. This tribe is acrid and poisonous; the leaves and fresh stem, if bruised and applied to the skin, cause vesication. Roxburgh describes ten Himalayan species, and Voigt enumerates twelve Indian.

cylindrica.
gouriana.
ochroleuca.
reticulata.
florida.
grata.
integrifolia.
flammula.
vo
viticella.
vitalba.
wightiana.

They are indigenous and exotic. Griffith says there is one species, the virgin's bower, of this northern genus, in the Tenasserim Provinces, with simple fleshy leaves. The *Clematis gouriana,* is abundant among the ruins of Goûr, and it doubtless participates in the properties of the others. It forms, with *Porana paniculata* extensive lovely festoons. It is the *Moriel,* the Indian Traveller's-joy ; is scandent, and perennial. It grows all over India, from Dindigul and the Neilgherries up to Deyra Dhoon, along the foot of the Himalaya. Its flowers are white, at the close of the rains, and give out a very strong perfume ; it is a hardy plant and grows in any soil. The whole species are adapted for trellis work and easily increased by dividing the plants. The colours are various, white, blue, lilac, yellow, &c. (*Riddell.*) *Clematis grata* "Biliri." Hind. is a plant of Kaghan and Nepaul, and has small yellowish fragrant flowers, C. florida is of Japan. In France the *Clematis vitulba* is used by mendicants to cause artificial sores for the furtherance of their impostures. In Cochin China, according to Louriero, the *Clematis sinensis* is used as a diuretic and diaphoretic. At the Mauritius, the *Clematis Mauritiana* is employed to blister the cheek for the relief of tooth-ache. *Clematis Wightiana, W. & A.,* is scandent, perennial with very soft villous leaves, coarsely serrated. It, also, is called "*Moriel,*" and grows common at Mahableshwur, and the adjoining ghauts, flowering after the rains. Wallich's *C. grata* Asiat. Pl. *t.* 98, much resembles it and is perhaps identical. Hedges and thickets where these plants grow have the appearance of being covered with hoar frost, from the white feathery tails of the seeds. They are very ornamental and worthy of a place in gardens.—*Gr. Cat., No.* 2, *p.* 1. *Riddell. Mason. Rox. Flora* 2, *p.* 671. *Gr. Cat. No.* 1, *p.* 1.

CLEOME, a genus of plants belonging to the Capparidaceæ or caper tribe. Most of the species formerly placed under this genus have been transferred to the genera Polanisia and Gynandropsis. Cleome monophylla, *Linn.*, the C. cordata of *D. C.*, grows in Ceylon and the peninsula, and has small, pale, rose-coloured flowers.—*Linn.*; *Roxb.* iii. 129.; *D. C.*

CLEOME DODECANDRA. Linn. syn. of Polanisia icosandra, *W. and A.*

CLEOME FELINA. Linn. Syn. of Polanisia felina, *D. C.*

CLEOME ICOSANDRA. Linn. Syn. of Polanisia icosandra, *W. and A.*

CLEOME PENTAPHYLLA. Linn. Syn. of Gynandropsis pentaphylla, *D. C.* See Vegetables of Southern India.

CLEOME RUTA. Dne.

Kastere of	Trans-Indus.	Bugri	of Beas.
Dandi	of Beas.	Bujra	,,
Buti	,, ,,		,, ,,

A small inconspicuous plant, with a yellow flower and a strong rutaceous smell, which is common in many places in the Punjab plains from the Sutlej westward, and up to the Suliman range. In the Southern Punjab the plant is pounded and taken for colic. *St.*

CLEOME VISCOSA. Syn. of Polanisia icosandra.

CLEOPATRIS, an ancient town near the modern Suez.

CLEOPATRA'S NEEDLE, a monolith, so called by the British, by the native Ciceroni, it is called Masallat-ul-Firaun, Pharaoh's packing needle. It was granted to the British nation.—*Burton's Pilgrimage to Meccah, Vol. I., p.* 14.

CLERK, Sir George, K. C. B., a Bengal civil servant, who was employed in high offices of Government and was afterwards Governor of Bombay.

CLERODENDRON, a genus of plants belonging to the Verbenaceæ. One species in the Terai, forms a large shrub beneath every tree, generally intermixed with ferns, as polypodium, pteris, and goniopteris, and its sweet odour is borne far through the air. Clerodendron leaves, bruised, are used to kill vermin, fly-blows &c. in cattle, and the twigs form tooth-picks. Its flowers are presented to Mahadeo, milk, honey, flowers, fruit (ambrosal) &c. being offered to the pacific gods, as Vishnu, Kishna, &c.; while Mudar (Calotropis Asclepias) Bhang, Cannabinus sativus, Datura, flesh, blood, and spirituous *liquids, are offered to Siva, Doorga, Kali and other destroying deities. The Burmese cultivate a fragrant double cleroden*dron, which appears to be a variety of a large leaved species. In the most arid parts of the Tenasserim forests, during the hottest months of the dry season, the path of the traveller is perfumed by the flowers of a fragrant clerodendron. One species, supposed by Dr. Stewart to be C. infortunatum. L., called "Kali basuti" on the Beas. It occurs in the Siwalik tract and occasionally in the plains, and is probably the one that Edgeworth mentions as being used in the Ambala tract, to give fire by friction.—*Mason. Hooker. Him. Jour. Vol. i. p.* 387. *Dr. J. L. Stewart, p.* 165.

CLERODENDRON INERME. Gærtn *Roxb. Rheede.*

Volkameria inermis. *Linn.*

Ban juen	Beng.	Eru-pichcha	Tel.
Sang-kupi	Duk.	Eti-pisinika	,,
Nir-notsjil	Maleal.	Peunika	,,
Sangam kupi	Tam.	Utichettu	,,
Nalla kupi,	Tel.	Takkolapu chettu	,,
Pisangi	,,	Erupuchcha	,,
Pisingha	,,		

CLERODENDRON INFORTUNATUM. Bark used by the Arabian and Indian physicians.—*Honigberger, p.* 258.

CLERODENDRON MACROPHYLLUM. Sims. Syn. of Clerodendron serratum, *Blume.*

CLERODENDRON NUTANS.

Gan-yan-pa too, Burm.

The Karen mountain glens of Tavoy and Mergui are embellished with the elegant flowering nodding clerodendron. The flowers are tinged with rose, but nearly white, growing in long panicles at the extremities of the branches from which they make a graceful curve, and hang down perpendicularly from ten to fifteen inches, like an inverted cone, so that the soft green foliage seems canopied with rosy-white veils. The flowerets are few, the divisions of the panicle being remote, and each bearing only three or five flowers. The divisions and subdivisions being all rectangular, and each blossom hanging from its pedicel like an ear drop, order and beauty are inseparable associations with this rare plant. It grows in Silhet. The shrub blooms in the dry season, and rarely exceeds, in its native soil, more than ten feet in height.—*Mason. Voigt.*

CLERODENDRON PHLOMOIDES. Linn. *Roxb. W. and A.*

Volkameria multiflora. *Burm.*

Taludala	Tam.	Teleki	Tel.
Tekkali	Tel.	Tilaka	,,

Grows in the Deccan, Coromandel, Bengal and Lower Kamaon.

CLERODENDRON SERRATUM. Blume, *Bl. W. Ic.*

C. macrophyllum.	*Sims.*	Volkameria serrata.	*Linn.*
Jeru tika	Maleal.	Brahmari mari	Tel.
Chiru dekhu	Tam.		

Grows in Salsette, above the Bombay ghats, in Nepaul, Morung mountains. The flowers and leaves are eaten as greens.

CLERODENDRON SIPHONANTHUS, R. Br.

Siphonanthus Indica	*Linn.*	Arni Hind.	of Beas.

Its root.

Dawa i mubarak.

Grows in both peninsulas of India, in Bengal and Silhet. Its root and leaves are officinal; the hindi name means the blessed medicine.—*Voigt. Dr. Stewart.*

CLERODENDRON SQUAMATUM.

Volkameria kampferiana. *Jacq.*

Scarlet clerodendron	ENG.	Bu-gyee-nee	BURM.

The Burmese compounds are ornamented with this species of clerodendron, which bears a large cone of superb scarlet flowers. Although said to be originally from China, it appears to be naturalized in Burmah.—*Mason.*

CLERODENDRON VISCOSUM. VENT.

C. infortunatum.	*Linn.*	Volkameria infortunata *Roxb.*
C. infortunata.	*Roxb.*	

Bhant	BENG.	Bokada	TEL.
Bu-ghyee-phyoo	BURM.	Gurrapu Gatte aku,	
Peragu	MALEAL.	Manduka-bramhi	,,
Saraswati aku	TEL.		

Grows in both the Indian peninsulas, in Bengal and Oudh.

CLEVELAND, AUGUSTUS, a Bengal civil servant, who, in a brief space, won over the wild races near Rajmahal. He died while still young, and the Government of India decreed a monument to his memory with the following inscription: To the memory of Augustus Cleveland, Esq., late Collector of the districts of Baghulpore and Rajmahal, who, without bloodshed or the terrors of authority, employing only the means of conciliation, confidence and benevolence, attempted and accomplished the entire subjection of the lawless and savage inhabitants of the jungleterry of Rajmahal, who had long infested the neighbouring lands by their predatory incursions; inspired them with a taste for the arts of civilized life, and attached them to the British Government by a conquest over their minds, the most permanent, as the most rational mode of dominion. The Governor-General and Council of Bengal, in honour of his character and for example to others, have ordered this monument to be erected. He departed this life on the 13th day of January 1784, aged 29.—*Tr. of Hind. Vol.* I. *p.* 101.

CLIMATE. The hindu races of southern India, familiar only with the tropical countries in which they dwell, use "water" as the term for describing the effects of a climate on health. In this sense it is more the salubrity of a locality that is alluded to. Mahomedans of Asia treat of seven climates, the Haft aklim. This applies to the northern hemisphere, which they partition with zones of various breadth from east to west. When alluding to the salubrity of a locality, the mahomedans of India and Persia use the words Ab-o-Howa, water and air. According to Simmonds (p. 10.) Meyen, in his division of the horizontal range of vegetation, into zones, extends,—

1. *The equatorial zone* to fifteen degrees on both sides of the equator. In this division are the Cape Verd Islands, Sierra Leone, Ascension and St. Helena, the republic of Liberia, the European and native settlements in the Gulf of Guinea and on the Western Coast of Africa; Abyssinia, Zanzibar on the East Coast, Mocha and Aden in the Red Sea, the northern portion of Madagascar, the Seychelles, the Madras Presidency, Ceylon and the Nicobar Islands, Sumatra, Siam, Malacca, Singapore and the Straits Settlements, Cochin China, the Philippine Islands, Borneo, Celebes and the Moluccas, Java and Madura, Banca, the Johore Archipelago, Timor and the eastern group of Islands, with New Guinea, a large portion of Northern Australia, the Marquesas, Society and other Oceanic islands. In South America the Republics of Peru, Bolivia, Ecuador, New Granada, and Venezuela, British, French and Dutch Guiana, and a large portion of the empire of Brazil, Trinidad, Barbados, and most of the islands in the Carribean Sea. This zone has a mean temperature of 78½ to 82½ Fahrenheit.

2. *The Tropical zone* reaches from the 15th degree on each side of the equator to the tropics in 23 lat. The mean temperature is 73½ to 78¾ deg. Summer temperature 80½ to 86 deg. Winter temperature in the eastern coast districts 59 deg. In this region is comprised the following countries:—Sandwich Isles, Canton, province of China, Burmah, Calcutta, and a portion of the Bengal Presidency, the Bombay Presidency, Madagascar, Mauritius and Bourbon; the southern portion of Brazil, Cuba, St. Domingo, Mexico, and Central America.

3. *The sub-tropical zone* extends from the tropics 23 to 34 deg. of latitude. There are a number of tropical fruits in this region. The winters are mild and vegetation is green throughout the year. In the northern division of the zone palms and bananas grow on the plains. In this region is comprised all the extreme northern portions of Africa, coasting the Mediterranean, comprising Algiers and the Barbary States, Egypt, part of Persia, Cabool, the Punjab and Hindustan; the greater portion of China, Lower California, Texas, the South-Western States of America, the Bermudas, the Cape Colony and Natal, New South Wales, Southern and Western Australia—the Government settlements in the Northern Island of New Zealand, the largest portion of Chile, Paraguay, Uruguay and the Argentine Republics, the Provinces of Brazil from St. Paul to Rio Grande, Madeira and the Canary Isles.

Dr. Royle gives the following arrangement of the countries of which the plants will grow in the different parts of India.

Tropical and East-Indian Islands, Tropical Africa, Brazil, Guiana, West-Indies and Florida.	Travancore, Cochin, Malabar, Ceylon, Malayan Peninsula, Chittagong, Bengal, Lower Assam.
East and West Coast of Africa.	Coromandel Coast, Northern Circars, Concan.
Southern States of North America, Egypt, North of Africa, Syria.	Gujerat, Behar, Doab, Delhi, Malwa,
Mexican Highlands, Lower Mountains of Spain.	Mysore, Hilly ranges in Deccan, Rajpootana.
South of Africa, Extra Tropical New Holland, South America beyond 23½° S. Lat.	Saharunpore and Northern Doab.
Mediterranean Region.	Deyra Doon, and Himalayan Valleys to moderate elevations.
Chino-Japanese Region, Middle Andes, Peru, and Mountains of Brazil.	Neilgherries, Upper Assam, Himalayan mountains.
North of Europe, North of Asia, and North America.	Himalayan Mountains. Regions of Oaks and Pines.
Arctic regions, Mountains of Europe, Elevated Andes.	Himalayas above Region of Forest.

The northern, like the southern part of India, enjoys two crops during the year, one called the *khureef*, or rain crop, sown in June, and reaped in October, the other sown in October, and reaped in March and April, called the *rubbee*, or cold weather crop. The latter, embracing the months which approximate in temperature to that of the season of cultivation in colder countries, corresponds with them also in the nature of the plants cultivated, as for instance, wheat, barley, oats, and millet, peas, beans, vetch, tares, chik-pea, pigeon-pea, and lentils; tobacco, safflower, and succory; flax, and plants allied to mustard and rape, as oil seeds; carrot, coriander, and cummin, and other seeds of a similar kind, as *ajwain*, *sonf*, *soya*, *aneeson*. In the rainy season, a totally different set of plants engages the agriculturist's attention, as rice, cotton, indigo, and maize, with sorghum, pulse, joar, koda, most of the tropical legumes, as well as several of the cucumber and gourd tribes, together with the sesamum, for oil, and the varieties of the egg plant, as a vegetable. The sun and sunnee, two cordage plants, are also cultivated at this season. In Hindustan the people usually arrange the year into three periods, the "Choumasa" or "Burk'ha," which is the rainy season, of four months duration; after which is the "Seeala" or "Jara" or "Mohasa," the cold season; followed by the Dhoopkala or K'hursa or hot season. This division indicates, generally, the course of the seasons in India, though, in one locality, the rains or the hot or cold seasons, may be somewhat more prolonged. The primary divisions of continental India are four:—Hindostan, including in which term the whole Peninsula of India, and the Gangetic plain, to the base of the Himalaya. 2. The Himalaya, a mountain chain which rises abruptly from the Gangetic plain, and is connected with a still loftier mountain mass (of Tibet) to the north, and beyond India. 3. Eastern India ultra Gangem, including the kingdom of Ava and the Malay Peninsula. 4. Afghanistan. These divisions are marked out by great mountain barriers and by the ocean. The Himalaya mountains on the north are nowhere under 15,000 feet, usually exceed 17,000 and 18,000 feet, and rise in isolated peaks or groups of peaks to 21,000 and to 28,000 feet.

From the western extremity of the Himalaya the Afghan mountains descend parallel with the Indus, with a gradually decreasing elevation from above 15,000 feet to the level of the sea at the Arabian gulf. Throughout Afghanistan the climate is excessive. The cold of the winter is intense, the spring is damp and raw, and the summer, during which hot, west winds prevail, is intensely hot at all elevations. The general aspect of the whole of Afghanistan is that of a desert. The crops are chiefly wheat and barley, even up to 10,000 feet elevation. Rice is cultivated in great quantity at Jellalabad 2,000 feet, at Kabul 6,400 feet, and to a considerable extent at Ghazni 7,730 feet. Poplars, willows and date-palm trees are extensively planted as well as mulberry, walnut, apricot, apple, pear, and peach-trees, and also the Elæagnus orientalis, which bears an eatable fruit. The vine abounds as in all warm and dry temperate climates. The majority of the Afghan and Tibetan plants are also on the one hand natives respectively of the Caspian steppes and N. Persia, and of Siberia on the other.

The date is cultivated in Beluchistan up to 4,500 feet, and a dwarf palm, Chamœrops Ritchieana of Griffith, perhaps identical with the Chamœrops humilis of Europe occurs abundantly in many places, but with a somewhat local distribution.

The Ava and Malayan mountains, being given off from the snow clad mountains of East-Tibet, run to the south, and, though rapidly diminishing in elevation, are continued almost to the equator.

The Aravalli mountains extend from Hansi and Dehli to Guzerat.

The Vindhya chain stretches across the centre of Hindustan, from the Gulf of Cambay to the Ganges, and is three to four thousand feet high.

A Peninsular chain also called the Ghats, and the Western Ghats extends from Cape

Comorin to the Tapti river, for upwards of 900 miles, running parallel to the coast line, and perpendicular to the direction of the monsoons. This chain divides the peninsula into two distinct climates of a narrow western one, in Malabar and the Concan, and a broad eastern one, in which are the Carnatic, Mysore, and the Dekkan, traversed by all the peninsular rivers.

The south-west monsoon comes from the southern ocean, and is loaded with vapour. It passes over the plains of Bengal, and strikes on the Khassya mountains, and the whole length of the Himalaya, discharging itself in heavy rains. From April till August it blows from the East of South, in August S. S. E., and in September more easterly, lowering the temperature of Bengal and of the northern plains, though the plains of the Punjab continue excessively heated.

From the vernal till the autumnal equinox, the heat of a great part of India continues great; but after the autumnal equinox, the great mass of the Himalaya becomes intensely cold, and the plains of India generally become cool. Where the north-east monsoon prevails, it is every where a land wind, except on the east coast of the Carnatic and in the Malayan Peninsula. In Malaya it blows over a great extent of sea, and is therefore very rainy, but at the Carnatic the width of sea is not great, so that the rain fall, though well marked, is less, and terminates long before the end of the monsoon, probably from the wind acquiring a more directly southerly direction, after the sun has reached the southern tropic. The amount of rain varies prodigiously in different parts of India, from almost none to six hundred inches, but the rain-fall affords no direct criterion of the humidity of any climate, for the atmosphere may be saturated with moisture without any precipitation taking place. Thus, while in Sikkim 1° for 300 feet is the proportion for elevations below 7,000 feet, on the Nilghiri Hills it is about 1° for 340 feet, in Khassia 1° for 380 feet; and the elevations of Nagpur and Umbala produce no perceptible diminution in their mean temperature, which is as great as that which would normally be assigned to them were they at the level of the sea.

At Mahabaleshwar it amounts to 248 inches annually. In the Southern Concan, especially in the Sawantwari district, the rains are as heavy as in Canara. At Bombay the rains last from June till the end of September, and the fall is only eighty inches, which is considerably less than at any point further south on the coast. At Tannah, however, the average fall is more than 100 inches. In the Himalaya, the truly temperate vegetation supersedes the sub-tropical above 4,000 to 6,000 feet, and the elevation at which this change takes place corresponds roughly with that at which the winter is marked by an annual fall of snow. This phenomenon varies extremely with the latitude, humidity, and many local circumstances. In Ceylon and the Madras Peninsula, whose mountains attain 9,000 feet, and where considerable tracts are elevated above 6 to 8,000 feet, snow has never been known to fall. On the Khassia mountains, which attain 7,000 feet, and where a great extent of surface is above 5,000, snow seems to be unknown.

Sikkim occupies an intermediate position between Nepaul and Bhotan, and unites the floras of Nepaul, Bhootan, East Tibet, and the Khassia mountains, being hence, in a geographico-botanical point of view, one of the most important provinces in India, if not in all Asia. In Sikkim snow annually falls at about 6,000 feet elevation, in Nepaul at 5,000 feet, in Kumaon and Garhwal at 40,000, and in the extreme West Himalaya lower still.

That the mountain system of East Tibet is an enormously elevated mountain mass, is proved by the statements of many intelligent Tibetans, by the Chinese geographers, by the narrative of M. Huc, and by the fact of so many of the large rivers of Asia flowing from it in several directions. The Travancore group of mountains presents a striking analogy to the island of Ceylon. They are loftiest at the extreme north of the district, where they stretch east and west for sixty or seventy miles, separating the districts of Dindigul and Madura. Notwithstanding the perennial humidity, the rain-fall at Courtalum is only 40 inches: on the hills around, however, it is doubtless much greater. The Pulney or Palnai mountains west of Dindigul, the Animalaya south of Coimbatore, the Shevaghiri mountains south-west of Madura, and the ranges near Courtalam, are all well known. The remarkable palm, Bentinckia, so common on its mountains, is however not known in Ceylon. The other palms are Caryota urens, an Areca, Phœnix farinifera, and one or two species of Calamus.

To the north of Coimbatore the peninsular chain rises abruptly to 8,000 feet, as the Neilgherry range, and continues northward as the mountains of Coorg. The rain-fall, which is great on the western coast, is less on the Neilgherries, being 100 inches at Dodabetta and 64 inches at Ootacamund. Further north in the Nagar district of Mysore, there are many rounded or table topped hills 4-5,000 feet high, often cultivated to that height and rising in some places to upwards of 6,000 feet. The climate of the western part is very humid and particularly so at the town of Nagar or Bednore, 4,000 feet high, on a spur of the western chain, where inclement rain is said to last for nine months. The Eastern Archipelago, from consisting of large islands, separated by belts of sea, possesses a humid and equable climate; but the great continent of Australia, being a vast expanse of low land, becomes enormously heated when the sun is in the southern hemisphere, and presents extremes of climate.

Intimately connected with climate is the mean annual temperature of different localities:

	Lat.	Mean.		Lat.	Mean
Equator	0·	82·5	Bombay	18·50	77·7
Ceylon	7·	80·8	Macao	22·12	74·
Pondicherry	11·55	85·3	Canton	23·8	73·2
Madras	13·4	80·4			

Sir J. Leslie has deduced from calculation that within the tropics, at the level of the sea, the thermometer ranges from 84° to 76°, Humboldt, from a very extensive generalization, estimated the mean temperature of tropical regions at 81½. At Trincomalee the mean annual temp is 80½.° At London it is 49·651. The thermometer sometimes rises higher in the tropics, in Arabia to 110° and during the night 94.

Sir John Leslie calculates that the thermometer sinks 1° for every 100 yards of ascent within the tropics.

The mean number of rainy days are as under:

	Rainy days.		Rainy days.
N.L. 12° to 43°	78½	N.L. 43° to 46°	103.
46° to 50°	134	51° to 60°	161.

	CALCUTTA.		BOMBAY.		MADRAS.		NEILGHERRIES.			LONDON.		
	Mean. Max. 3 P.M.	Mean. Min. 6 A.M.	Mean. Max. 4 P. M.	Mean. Min. 11 A.M.	Mean. Max.	Mean. Min.	Monthly Means. 6 A. M.	Monthly Means. 3 P. M.	Average of rain fall 2 years. Inches.	Mean. Max.	Mean. Min.	Average of rain fall 2 years. Inches.
January ..	75·1	63·	78·	76·	82·2	74·1	45¾	57½	1·17	39·6	32·6	1·483
February...	80·	67·	78·	76·	84·5	73·8	45¾	59½	0	42·4	33·7	·746
March ..	88·1	68·	81·	80·	87·6	78·7	58	63	2·47	50·1	33·7	1·440
April ...	95·1	79·1	84·	83·	92·	84·1	58	63¾	3·10	57·7	42·2	1·786
May ...	97·1	80·1	85·	85·	94·3	85·1	57	63¼	5·21	62·9	45·1	1·853
June ..	88·	78·	86·	85·	90·5	84·2	57½	60	5·25	69·4	48·1	1·830
July ..	86·1	78·1	81·	81·	92·6	85·3	52¾	61¾	10·37	69·2	52·2	2·516
August ..	86·2	79·3	82·	84·	89·9	83·1	57	60¼	11·77	70·1	52 9	1·453
September..	86·	78·	80·	79·	89·7	83·3	54¼	60¾	2·40	65·6	50·1	2·193
October ..	89·2	76·1	85·	84·	87·8	82·4	50¼	62	7·41	55 7	42·1	2·073
November..	78·	65.2	85·	84·	84·3	80·1	50¼	61½	10·86	47·5	38·3	2·400
December..	75·	59·	81·	80·	80·2	76·	46¼	60	3·87	42·2	35·4	2·426
Annual Means.	85·3	73 4	82·4	81·5	87·9	80·8	52¾	61	63·88	56·1	42·5	

In China the staple summer crops are those which yield textile fibres. The jute of India, a species of Corchorus, is grown to a very large extent, and in China is used in the manufacture of sacks and bags for holding rice and other grains. A gigantic species of hemp (Cannabis) growing from ten to fifteen feet in height, is also a staple summer crop of China, and is used in making ropes and strings of various sizes, such articles being in great demand for tracking the boats up rivers and in the canals of the country. China grass-cloth, a beautiful fabric made in the Canton province, is largely exported to Europe and America. The Urtica nivea plant which is supposed to produce this, is abundantly grown in Kiangse and other provinces. Fabrics of various degrees of fineness are made from this fibre, but none are so fine as that made about Canton: it is also spun into a very strong and durable thread. There are two very distinct varieties of this plant common in Chekiang—one the cultivated, the other the wild. The cultivated variety has larger leaves than the other; on the upper side, they are of lighter green, and on the under they are much more downy. The stems also are lighter in colour, and the whole plant has a silky feel about it which the wild one wants. The wild variety grows plentifully on sloping banks on city walls, and other old and ruinous buildings. It is not prized by the natives, who say its fibre is not so fine, and more broken and confused in its structure than the other kind. The cultivated kind yields three crops a year. A species of juncus is grown, the stems of which are woven into beautiful mats, used by the natives for sleeping upon, for covering the floors of rooms, and for many other useful purposes. This is cultivated in water, somewhat like the rice-plant, and is therefore always planted in the lowest part of the valleys; in the beginning of July the harvest of this crop commences. At grey dawn of morning the sheaves or bundles were taken out of temporary sheds, erected for the purpose of keeping off the rain and dew, and shaken thinly over the surface of the ground. In the afternoon, before the sun had sunk very low in the horizon, it was gathered up again into sheaves and placed under cover for the night. And so the process of winnowing went on day by day, until the whole of the moisture was dried out of the reeds. The winter crops of that part of China consist of wheat, barley, the cabbage oil-plant, and many other kinds of vegetables on a smaller scale. Large tracts of land are planted with the bulbs of a liliaceous plant, probably a Fritillaria, which are used in medicine. This is planted in November, and dug up again in April and May. In March these lily fields are in full blossom, and give quite a feature to the country. The flowers are of a dingy greyish white, and not very ornamental.—*Fortune, Res. among the Chinese, page* 259. *Simmond's Commercial Products. Royle on the Productive Resources of India. Hooker and Thomson Fl. Indica.*

CLIMBERS. Climbing plants are exceedingly numerous in the damp forests of India. At Tonglo, in Sikkim, at an elevation of several thousand feet, Dr. Hooker found great scandent trees twisting around the trunks of others, and strangling them : the latter gradually decay, leaving the sheath of climbers as one of the most remarkable vegetable phenomena of these mountains. These climbers belong to several orders, and may be roughly classified in two groups—(1) Those whose stems merely twine, and by constricting certain parts of their support, induce death. (2) Those which form a net-work round the trunk, by the coalescence of their lateral branches and aerial roots, &c. : these wholly envelope and often conceal the tree they enclose, whose branches appear rising far above those of its destroyer. To the first of these groups belong many natural orders, of which the most prominent are *Leguminosæ*, ivies, hydrangea, vines, Pothos, &c. The inosculating ones are almost all figs and *Wightia* : the latter is the most remarkable for its grasping roots.—*Hooker Him. Journ., Vol.* 1, *page* 163, 164.

CLIMBING MIMOSA. ENG. Acacia scandens.

CLINQUAILLERIE, also Quincaillerie, FR. Hardware.

CLINTONIA ELEGANS. A pretty border flowering plant, colours white and blue, gives seed abundantly and thrives in any good soil.

CLITORIA TERNATEA. LINN.; *Rcxb.*; *W. and A.*

A variety is C. cæruleoflora.

Niluparajita,	BENG.
Sbwet Upurajita,	,,
Oung-mai-phyoo	BURM.
Kali zar ?	DUK.
Wing leaved clitoria	
Khagin, Upurajita, Kowa, Kowatheti	HIND.
Shlonga-kuspi	MAHR.
Shuukur puspa	MALEAL.
Shlongo-Kusbi	MALEAL.
Shuukoo-pushpa	,,
Dhanattar	PUSHT.
Nilaghiria khurne	SANS.
Uparajita Asphota	,,
Nilkata rodu	SINGH.
Karka kantun	TAM.
Kara-kartan	,,
Karka-kartam	,,
Tella	TEL.
Dintena	,,
Nalla	,,

There are several varieties of this cultivated flowering plant, and the most common are the blue and white. They blossom all the year round and being shrubby twining plants, are well suited for covering trellis work. They are of easy growth, and the blue flowers are used sometimes for colouring boiled rice. Are propagated by seed, and in any soil. In some parts of Southern Asia, it is a common wild creeper during the rains. Dr. J. D. Hooker mentions that a beautiful blue-flowered *Clitoria* creeps over the path to Syong on the Khassia Hills, with the ground-raspberry of Darjiling. In Tenasserim, the Clitoria ternatea, with its deep blue flowers, is seen tangled with other climbers, wandering over trees and arbors, in all parts of the country. Dr. Ainslie informs us that the sweetish, somewhat warm, white root of this plant is given in substance ground into powder in croup cases, that it sickens and sometimes vomits, the dose being half a pagoda weight for a child of two or three years. Dr. O'Shaughnessy used the root extensively in order to test its alleged emetic effects, but never observed the occurrence ; an alcoholic extract acts however as a brisk purgative in from 5 to 10 grain doses. But griping and tenesmus are often produced, and during the operation of the medicine the patient is feverish and uneasy. He does not recommend its use. Its flower is held to be sacred to Durga.—*Riddell. Him. Jour. Vol.* II, *page* 291. *Mason. O'Shaughnessy, page* 315. See Karkakartam ver.

CLIVE, Robert Lord, a Madras civil servant, who became a great military commander, was Governor of Madras, and Governor General of India. Amongst the many eminent men who have served and ruled in British India, he alone has been styled "Great," and whether his deeds as a military commander be considered, or his successes in the civil administration of India, posterity has conceded that title to him alone. He entered the service of the E. I. Co. in 1744, but shortly afterwards obtained an ensign's commission. In September 1748, he distinguished himself as an ensign before Pondicherry, and again in August 1749 at Devi-

Cottah. In May 1751 he was present in the fight at Volcondah, and in July defeated the French at Condore. In 1751 he laid siege to Arcot, with only 120 Europeans and 200 natives, in August, took it; in November he defeated Basin Rao at Arni; in December took the pagoda of Conjeveram; in 1752 he defeated the French and Chandah Sahib at Cauverypauk, destroyed the town of Dupleix Fattehabad, defeated the French army, took Covelong, and commanded the land forces against Gheriah. Clive, in 1756, after the fall of Calcutta and the imprisonment by Suraj-ud-Dowlah, left Madras with 900 Europeans, recaptured Calcutta, and made peace. But war again broke out, and Clive with 3000 British and native soldiers defeated Suraj-ud-Dowlah on the 23rd June 1757 at Plassey, 40 miles south of Moorshedabad. Mir Jaffir was then declared subadar of Bengal, Behar and Orissa. Clive revisited Britain in 1760 with the rank of Colonel. Mir Jaffir Khan was restored in 1763. Clive subsequently returned to India, corrected abuses in the Government, obtained the Dewani of Bengal, Behar and Orissa, and assumed the civil and military government of the country. His retrenchments caused a mutiny amongst the officers and men, which he quelled with severe measures. He returned to Britain in 1767, and at first was well received, but was subsequently impeached before parliament, and only escaped by death. He died in November 1774. In his final treatment by his country his fate resembled that of La Bourdonnais and Dupleix. Lord Clive's life has had several historians, amongst whom are Caraccioli and Malcolm.—*Malleson. Orme.*

Clive, Lord, Governor of Madras, in *1801*. The descendant of Lord Clive is now styled Earl Powys in the Peerage Great Britain.

CLIVINA, a genus of Coleopterous Insects of the family *Scaritidæ*, and section *Geodephaga. Eng. Cyc. page Vol. 2. p.* I. See Coleoptera.

CLOCK. Eng.

Uuren	Dut.	Wianduhren	Ger.
Uurwerken	„	Orologgi	It.
Horologieu	Fr.	Oriuoli	..
Horologes		Tschasii	Rus.
Uhren	Ger.	Relojes	Sp.
Grosse-uhren	„		

The clocks to be seen in the south and eas of Asia are wholly of European manufacture. Prior to their introduction, the clepsydra or water clock was in general use. these were of copper, with a small aperture at the bottom, through which, when placed in water, the clepsydra filled and sank, the sinking marking an hour. The water clock of the Malay sailors is half of a cocoanut shell with a small hole, through which, when placed in a bucket, it fills and sinks in an hour. The clocks and watches of Europe are now largely distributed in all parts of Asia.—*McCulloch.*

CLOMPAN BŒRONG. Rumph. Sterculia fœtida.

CLOSE, Sir Barry, a distinguished military commander in the south of India after the ime of Clive.

CLOTHING. The materials used for lothing, and the forms of dress of the peoples of the south and the east of Asia, all differ widely according to the climate, the pursuits, and the origin of the races; for, through a thousand years, seemingly, the Eastern races continue to wear clothing simiar to what their forefathers put on: and in the countries embraced in this work, are human beings who, like the Andamanese, live wholly without apparel; and others, like the Chinese, who dress in a very elaborate manner. Hindoo men and women, until recently, wore only cloths, without seams, and even yet, perhaps, the woman's boddice (choli) and the man's jacket (angrika) alone are sewed, the lower garment of both sexes being long cloths which are skilfully wrapped round the limbs, and often as neatly so as sewn trowsers. The rajput nobles, as also indeed most hindus, wear trowsers when on horseback; but the prevailing hindu custom illustrates Mark x. 50, where mention is made of the blind man throwing off his upper garment, which was doubtless a piece of cloth. It is not considered at all indelicate among this people for a man to appear naked from the head to the waist, and servants thus attend at the tables of poor Europeans. In Arabia, a coarse cloak of camel or goat's hair is generally worn. It is called an Abba, and the material camaleen. Amongst men of the very humblest classes of Southern India, the simple loin cloth is the sole body clothing; but almost all have a sheet, or a cumbly, or coarse blanket of wool or hair as a covering for warmth. The Nair women move about with the body uncovered down to the waist; they do so to indicate the correctness of their conduct; the women of the Chensuar, a forest tribe in the neighbourhood of Ganjam, wear a covering of a bunch of leaves hanging from the waist both in front and behind, but, throughout British India, every other woman, however humble in circumstances, whether hindu or mahomedan, is wholly covered from the neck to the ankles, with choli and gown or cloths of kinds. This seems to have been the case from remote times. In the play 'Mrichchakati,' attributed to king Sudraka of Ujjein, who reigned, according to the traditional chronology, in the first century before the christian era, and is certainly not later than the second century after Christ, we find the following passage. Act iv. sc. ii. :—

Maitrena. Pray, who is that gentleman dressed in silk raiment, glittering with rich ornaments, and rolling about as if his limbs were out of joint?

Attendant. That is my lady's brother.

Maitrena. And pray who is that lady dressed in flowered muslin? a goodly person truly, &c.'

The following passage, taken from the 'Uttara Rama Cheritra,' by the same author, affords an idea of the costume of a warrior race. Janaka, the father of Sita, the heroine, in describing the hero Rama, says—

> . . . 'You have rightly judged
> His birth: for see, on either shoulder hangs
> The martial quiver, and the feathery shafts
> Blend with his curling locks. Below his breast,
> Slight tinctured with the sacrificial ashes,
> The deerskin wraps his body, with the zone
> Of Murva bound; the madder-tinted-garb
> Descending vests his limbs; the sacred rosary
> Begirts his wrists; and in one hand he bears
> The Pipal staff, the other grasps the bow.
> Arundati, Whence comes he?'

The women of Burmah wear a neat boddice, and a cloth as an under garment wrapped tightly round the limbs from the waist downwards: but it is so narrow that it opens at every step and all the inner thigh is seen. For the masses of the people of India and the East, the English manufacturer sends plain and striped "dooria," "mulmul," "aghabani," and other figured fabrics, which have established themselves there, and which, both from their good quality and moderation in price, are acceptable to the numerous classes who make use of them: the manufacture of the finest qualities of muslins, whether produced at Dacca or in Europe, must necessarily be always of a very limited character, and their use confined to very rich purchasers.

Long cloths or punjums of various qualities were formerly manufactured to a great extent in the Northern Circars, as well as in other parts; the great proportion consisted of 14 punjum or cloths, containing fourteen times 12 threads in the breadth, which varied according to local custom from 38 to 44 inches. 14lb. was considered the proper weight of such cloths, the length 36 cubits, half lengths being exported under the denomination of salampores. The manufacture of the finer cloths which went up to and even exceeded 50 punjum, has long been discontinued.

Long-Cloths.—Very superior kinds of long-cloths were formerly manufactured at Vizagapatam and sold at from 70 to 350 Rs. each, but the large supplies of long cloths from Great Britain, selling at the more moderate prices of from 6 to 40 Rs. per piece, has quite destroyed that old Indian manufacture.

Cloths, Men's.—These cloths are manufactured all over the country, but those of the Madura District have lace borders: they are sold as high as 70 Rs. for a suit of two pieces. Conjeveram is noted for its silk bordered cloths, which are sold for not more than 15 Rupees a pair.

Cloths, Native Female, Cotton.—This description of cloths forms an article of manufacture in every district, and are in constant use by all classes of the country. Madras manufactures a nicely coloured woman's cloth called "oolloor sailay," sold for seven rupees and upwards. Arnee is noted for its manufacture of a superior quality of white cotton cloths of various patterns. Those of Sydapet, in Chingleput, a country town in the out-skirts of Madras, are of ordinary quality and of different colours. Ganjam also fabricates a common sort, with a few of more value, worked with lace borders but not sold for more than 50 Rs.

Cloths, Native Female, Silk.—The principal places for the manufacture of native female silk cloths are the towns of Benares, Berhampore, and Tanjore. Those of Benares are generally of superior quality with rich lace borders, and they are sold at from Rupees 50 to 350 or upwards. Berhampore cloths are wholly silk but nicely finished. Tanjore cloths are also neatly finished with nicely worked borders, both of lace and silk of various colours: they are sold at from Rupees 15 to 150.

Cloth, Silk, called *Pethambaram.*—These are chiefly brought from Benares and Nagpore: they are also made at the town of Combaconum. The Benares cloths are highly prized for their superior quality: they measure 12 by 2½ cubits a piece: two pieces make one suit of an upper and under garment. Hindoos wear these cloths during their devotions and holiday time. They are sold from Rupees 50 to 350 or even more. The silk fabrics of Combaconum are good, although not equal to those of Benares.

Cloths, White, were manufactured all over Southern India, but those of Manamadoo in the district of Trichinopoly were very superior in quality and used by the more respectable of the inhabitants as clothing under the name of "Manamadoo Sullah." That at Arnee in the district of Chingleput, known as "Arnee Sullah," is of different quality.

Cloth, Woman, Cotton, Coloured.—These colored cotton cloths are largely made in the Madura district. They are of various sizes, with or without lace worked borders. Those with lace vary in price from Rupees 15 to 200 each; they are generally purchased by respectable natives, by whom they are highly prized. These fabrics are known in the market as:—

Vankey,	Lace bordered.	Joonnady,	Lace bordered.
Thomboo	do. do.	Ambooresa,	do. do.

Cloth, Woman's Silk.—These are brought chiefly from Benares and Nagpore, but they are fabricated also at Berhampore, Tanjore, Combaconum, and Conjeveram, in the Madras Presidency. Those of Benares and of the Mahratta countries are celebrated for their superiority, and are highly prized for their lace borders: their size is 16 by 2¼ cubits, and they are sold at Rupees 50 to Rupees 300 and upwards; those made at Berhampore, Tanjore, and Combaconum are not equal to the Benares cloths, but are well made and sold at from Rupees 15 to 70 each. The woman's cloths of Tanjore and Madura manufacture, and men's head-cloth, also from Madura, are good articles, and will compete with the production of any other loom in the world.

Printed cloths are worn occasionally, as in Berar and Bundelkhund, for sarees; and the ends and borders have peculiar local patterns. There is also a class of prints on coarse cloth, used for the skirts or petticoats of women of some of the humbler classes in Upper India; but the greatest demand for printed cloths is for palempores, or single quilts.

In the costlier garments woven in India, the borders and ends are entirely of gold thread and silk, the former predominating. Many of the sarees, or women's cloths,—those made at Benares, Pytun, and Boorhanpoor; in Guzerat; at Narrainpett, and Dhanwarum, in the territory of His Highness the Nizam; at Yeokla in Khandesh, and in other localities,—have gold thread in broad and narrow stripes alternating with silk or muslin. Gold flowers, checks, or zigzag patterns are used, the colours of the grounds being green, black, violet, crimson, purple, and grey; and in silk, black shot with crimson or yellow, crimson, with green, blue, or white, yellow with deep crimson and blue, all producing rich, harmonious, and even gorgeous effects; but without the least appearance of or approach to glaring colour, or offence to the most critical taste. They are colours and effects which suit the dark or fair complexions of the people of the country; for an Indian lady who can afford to be choice in the selection of her wardrobe, is as particular as to what will suit her especial colour—dark or comparatively fair,—as any lady of Britain or France. Another exquisitely beautiful article of Indian costume for men and women is the doputta scarf, worn more frequently by mahomedan women than hindu, and by the latter only when they have adopted the mahomedan lunga, or petticoat; but invariably by men in dress costume. By women, this is generally passed once round the waist over the petticoat or trousers, thence across the bosom and over the left shoulder and head; by men across the chest only. Doputtas, especially those of Benares, are perhaps the most exquisitely beautiful of all the ornamental fabrics of India; and it is quite impossible to describe the effects of gold and silver thread, of the most delicate and ductile description imaginable, woven in broad, rich borders, and profusion of gold and silver flowers, or the elegance and intricacy of most of the arabesque patterns of the ribbon borders or broad stripes. How such articles are woven with their exquisite finish and strength, fine as their quality is, in the rude handlooms of the country, it is hard to understand. All these fabrics are of the most delicate and delightful colours; the creamy white, and shades of pink, yellow, green, mauve, violet, and blue, are clear yet subdued, and always accord with the thread used, and the style of ornamentation, whether in gold or silver, or both combined. Many are of more decided colours—black, scarlet, and crimson, chocolate, dark green, and madder; but, whatever the colour may be, the ornamentation is chaste and suitable. For the most part, the fabrics of Benares are not intended for ordinary washing; but the dyers and scourers of India have a process by which the former colour can be discharged from the fabric, and it can then be re-dyed. The gold or silver work is also carefully pressed and ironed, and the piece is restored, if not to its original beauty, at least to a very wearable condition. The doputtas of Pytun, and indeed most others except Benares, are of a stronger fabric. Many of them are woven in fast colours, and the gold thread—silver is rarely used in them—is more substantial than that of Benares. On this account they are preferred in Central India and the Deccan; not only because they are ordinarily more durable, but because they bear washing or cleaning better. In point of delicate beauty, however, if not of richness, they are not comparable with the fabrics of Benares. Scarfs are in use by every one, plain muslins, or muslins with figured fields and borders without colour; plain fields of muslin with narrow edging of coloured silk or cotton (avoiding gold thread), and narrow ends. Such articles, called 'sehla' in India, are in every day use among millions of hindus and mahomedans, men and women. They are always open textured muslins; and the quality ranges from very ordinary yarn to that of the finest Dacca fibres. The texture of the dhotees, sarees and langhies manufactured in Britain and sent to India, is not that required by the people ; nor what they are accustomed to. It is in general too close, too much like calico in fact, which, of course, makes the garment hot, heavy in wear, and difficult to wash. Again, the surface becomes rough, and, as it is generally called, 'fuzzy' in use, while the native fabric remains free. Comparatively few native women of any class or degree wear white ; if they do wear it, the dress has broad borders and ends. But all classes wear coloured clothes ; black, red, blue, occasionally orange and green, violet, and grey. All through Western, Central, and Southern India, sarees are striped and checked in an infinite variety of patterns. Narrainpett, Dhanwar, and Muktul, in the Nizam's territories ; Gudduk and Bettigerry in Dharwar, Kolapoor, Nassik, Yeola, and many other manufacturing towns in the Deccan ; Arnee in the south, and elsewhere, send out articles of excellent texture, with beautifully arranged colours and patterns, both in stripes and checks. The costly and superb fabrics of cloths of gold and silver (Kimkhab), and the classes of washing satins (Mushroo and Hemroo), even if European skill could imitate them by the hand-loom, it would be impossible to obtain the gold and silver thread unless it were imported from India. The native mode of making this thread is known, but the result achieved by the Indian workman is simply the effect of skilful delicate manipulation. The gold and silver cloths, (kimkhab), are used for state dresses and trousers, the latter by men and women ; and ladies of rank usually possess petticoats or skirts of these gorgeous fabrics. Mushroo and Hemroo are not used for tunics, but for men's and women's trousers, and women's skirts ; as also for covering bedding and pillows ; they are very strong and durable fabrics, wash well, and preserve their colour, however long worn or roughly used ; but they can hardly be compared with English satins, which, however, if more delicate in colour and texture, are unfitted for the purposes to which the Indian fabrics are applied. For example, a labada or dressing gown made of scarlet mushroo in 1842, has been washed over and over again, and subjected to all kinds of rough usage ; yet the satin is still unfrayed, and the colour and gloss as bright as ever. Many of the borders of loongees, dhotees, and sarees are like plain silk ribbons ; in some instances corded or ribbed, in others flat. The Saree, Boonee, Bafta, Jore, Ekpatta, Gomcha, &c., of Dacca, are now entirely made of imported British yarn. Fabrics of a mixed texture of cotton and silk, are, in Dacca, designated by various names, as Nowbuttee, Kutan, Roomee Apjoola and Lucka, and when embroidered with the needle, as many of them frequently are, they are called Kusheeda. The silk used in their manufacture is the indigenous muga silk of Assam and Sylhet, but the cotton thread employed is now almost entirely British yarn, of qualities varying from Nos. 30 to 80. These cloths are made exclusively for the Jedda and Bussora markets, and a considerable stock is yearly imported in the Arab vessels that trade between Calcutta and these ports. Pilgrims too, from the vicinity of Dacca, not unfrequently take an investment of them, which they dispose of at the great annual fair held at Meena, near Mecca. They are used by the Arabs chiefly for turbans and gowns. The golden colour of the muga silk gives to some of these cloths a rich lustrous appearance : pieces made of native spun cotton threads and of the best kind of muga silk, are admired. The export-trade of the Madras Presidency in madapollams and long cloths has been annihilated by the goods laid down by the British manufacturer, in all the bazars of India.

Buchhanee in Dharwar, is commonly worn as a waist cloth by children of respectable people ; also worn by adults of the same class, while sleeping. Price one rupee two annas.

Chanduse, a cotton scarf, coloured border and ends, used in Khyrpoor.

Cholee or Boddice, an under-jacket worn by women. The Thāns, or cholee pieces of Dharwar, of a description used by women working in the fields, cost three annas for each cholee or twelve annas the piece.

Punchrungee of Dharwar has a warp of silk and weft of cotton, worn ordinarily by dancing women, not considered fit for respectable women, one "thān," one rupee twelve annas.

Cummarbunds are sashes worn by men. They are of cotton and of silk.

Dhotees are waist and loin cloths, and are occasionally worn so as to fall over and cover the greater portion of the lower limbs. One of a coarse cotton commonly worn by cultivators and laborers in the field may cost about two rupees.

Izar bund is of silk or cotton, and is a tie for trowsers.

Khess, a chintz scarf in use in Hyderabad (Sind.)

Loongi or scarfs of cotton, of silk, and of silk and cotton, are worn by men.

Moondasa, a cloth worn by the poorer classes in Dharwar. Costs rupees one and a quarter.

Mundel, a cloth of cotton and gold, obtainable in Kutch. Costs Rs. 8-4-11.

Paranda, a silk material used as a hair ornament in Lahore.

Patso of Burmah, is a cloth worn by all classes. In Akyab it is called Patsan and Patso, and is worn there by the Mug race.

Punjee of Dharwar, is a cloth used by well-to-do people, to dry themselves after bathing, and also worn as a waist cloth by poor people. Price one rupee.

Salendong, a silk scarf of Singapore.

Salimote, a silk scarf of Singapore.

Saree is the name of a hindu woman's lower cloth, and they vary in price from rupees two and upwards. Each woman generally has a new one once a year. It is often used also as an upper garment, in the form of a scarf, for enveloping the person; one end being usually brought over head as a covering.

Selya in the south of India, is a sheet or body covering in use amongst the poorer classes, cultivators, laborers, wrapped round their shoulders and body when employed in the fields. Their usual cost is about rupees one and a quarter to rupees one and three quarters. In Dharwar one is always presented to the bridegroom by relations of the bride, together with a turban.—*Drs. Taylor and Watson, Ex. of* 1862.

CLOUD. Mo Teim. BURM.

CLOUS, also Clous de girofle, also Girofles. FR. Cloves.

CLOVE BARK of Eastern commerce, is the bark of several species of Cinnamon trees.

CLOVE, MOTHER.

Polang	MALAY	Ibu-changkc.	MALAY.

"Mother clove" means seed clove, clove fruits that have been allowed to grow to full maturity.

CLOVE OIL.

Huile de girofle	FR.	Warala-tel	SINGH.
Lavang ka teil	HIND.	Lavangoo	TAM.
Oleo de garafano	IT.	Krambu tailam	,,
Minak-changke	MALAY.	Lawangha tailamu	TEL.

This is obtained from cloves by distillation.—*Faulkner.*

CLOVE PINK. Dianthus caryophyllus.

CLOVER, or trefoil, a name given to several species of the genus Trifolium grown in Europe. They are not grown in India. The most valuable grass in Tenasserim is not a proper grass, but, like the English clover, is a leguminous plant. It is a species of hedysarum, which, in India, says Dr. Wight, supplies the place of the species of *Trifolium* and *Medicago* in Europe. In other words, the farmer finds it a good substitute for clover and lucerne; and there is another leguminous plant at Tavoy, *Smithia sensitiva*, which is said to make excellent hay.

CLOVES. ENG.

Karenful,	AR.	Woh-kaya-lawang,	JAV.
Buwah-luvung.	BALI.	Chenki	,,
Lang-yen bwen	BURM.	Clavus	LAT.
Thenghio,	CHIN.	Chankee	MALAY.
Theng-ki.	,,	Bungalawang,	,,
Kruid-nagelen,	DUT.	Bunga Changke	,,
Kruid-nagel	,,	Meyhuc, Meykhek,	PERS.
Nageln-boomen	,,	Cravos da India,	PORT.
Clous de girofle	FR.	Gwosdika,	RUS.
Girofles	,,	Lavanga,	SANS.
Naglein	GER.	Warrala	SINGH.
Gewurznelken	,,	Clavillos,	SP.
Luvung,	GUZ.	Clavo de especia	,,
Long	HIND.	Lavangam	TAM.
Garofani,	IT.	Lawangama,	TEL.
Chiovi-di Garoffoli	,,		

In a law passed by Aurelian the first, in A. D. 175 and 180, cloves are mentioned. The cloves of commerce are the unopened flowers, the flower buds of the clove-tree, *Caryophyllus aromaticus* (*Eugenia caryophyllata*), which was originally a native of the Moluccas, but is now cultivated in Penang, Sumatra, Bourbon, Zanzibar, Guiana and the West India islands. They have the form of a nail, and when examined are seen to consist of the tubular calyx with a roundish projection, formed by the unopened petals. It is a very handsome tree growing to the height of twenty to forty feet. The trunk is straight, and rises four or five feet before it throws out branches. The bark is smooth, thin, of a grey color, and the wood of the trunk too hard for ordinary cabinet work. The leaves are opposite, smooth, narrow, pointed, of a rufus color above, and green on the under side. They have a very aromatic odor when bruised between the fingers. The flowers produced in branched peduncles, at the extremity of the bough, are of a delicate peach color. The elongated calyx, forming the seed vessel, first changes to yellow, and, when ripe, to red, which is from October to December, and in this state it is fit to gather. If left for a few weeks longer on the trees, they expand, and become what are termed "mother cloves," fit only for seed or for candying. In the gathering, the ground under the tree is first swept clean, or else a mat or cloth is spread. The nearest clusters are taken off with the hand, and the more distant by the aid of crooked sticks. Great care is taken not to injure the tree, as it would prevent further bearing. The cloves are then prepared for shipment by smoking them on hurdles near a slow wood fire, to give them a brown color, after which they are further dried in the sun. They may then be cut off from the flower branches with the nails, and will be found to be purple colored within, and fit to be baled for the European market. In some places they are scalded in hot water before being smoked, but this is not common. The tree begins to bear from the seventh to the fifteenth year, and is fruitful till it is 75 or 150 years old. The annual yield of a good tree is about lbs. 4½, and the annual crop from Amboyna, Haruku, Saparua and Nasalaut is lbs. 3,50,000 of Amsterdam. (*Bikmore*, 154.) Mr. Crawfurd, tells us that the clove is remarkable for its limited geographical distribution. It is only in its native localities, the five small islets on the western coast of the large island of Gilolo, that it is easily grown, and attains the highest perfection. There it bears in its seventh or eighth year, and lives to the age of 130 or 150. Rumphius informs us, that shortly before the arrival of the Portuguese it had been carried to and reared in Amboyna, where, however, it does not bear until its fifteenth year, and where the average duration of its life does not exceed 75 years. He informs us further that large islands are not favourable to its growth—that it succeeds indifferently even in such islands as Gilolo and Ceram, and that the natives of Celebes and Java, who had attempted to grow it in their own country, had obtained plants which bore no fruit. Europeans, however, have succeeded somewhat better. The clove has been long transferred by them from the Moluccas to Sumatra,—to the islands in the Straits of Malacca,—to Bourbon, to Zanzibar, on the eastern coast of Africa, and to Cayenne. In some of these places, however, the culture has virtually failed, even where that of the nutmeg has succeeded, and everywhere the produce is of inferior quality to that even of Amboyna. A suitable soil seems to be as indispensable as a suitable climate. The soil of the Molucca Islands is volcanic, which is not the case with any of the countries to which the tree has been transferred, except the Island of Bourbon, and here the suitable climate seems to be wanting. The clove appears, from Pigafetta's statement, to have been private property, and entirely free in culture and trade ; Malays, Javanese, Chinese, Macassars, and Arabs, all competing for it in an open market. The annual quantity produced, according to him, in the five islands, seems to have been from 1500 to 2000 bahars : and the bahar is an Arabian weight, computed in the Moluccas at about 590 pounds. The companions of Magellan themselves loaded two ships with cloves at the single island of Tidor, after a stay, from their arrival to their departure, of no more than forty-four days. The Portuguese made their first appearance in the parent country of cloves in the year 1512 ; and having been expelled by the Dutch in 1605, they had the principal share of the clove trade for ninety-three years, a period of rapine, violence, and bigotry. Their main object was the exclusive monopoly of spices, by the expulsion of all rivals. Their successors pursued the same object in a manner still more rigorous. They extirpated the clove trees in their native islands, and endeavoured to limit their growth to the five Amboyna islands, in which the clove is an exotic. Periodical expeditions for the extirpation of young plants that might spontaneously have sprung up, or been propagated by birds, formed part of this system. The clove monopoly still exists, but in a very tottering condition. The periodical exterminating expeditions have been merely nominal during the nineteenth century; and since the year 1820, although the monopoly be persevered in, in the five Amboyna islands, where the parks, as they are called, are the property of the government, the culture and trade are legitimate everywhere else.—(*Crawfurd's Dictionary, page* 104.) The clove tree may be seen in a few gardens on the Tenasserim coast, and cloves are abundant in the bazars. At the Madras Exhibition of 1855, cloves were forwarded from Travancore, Tinnevelly, Canara, and Cochin. The plumpest and heaviest were from General Cullen's Gardens near Oodagherry, 1800 feet above the sea ; these had a strong aromatic odour, and were of a dark brown colour ; they were quite entire, and when pressed with the nail, the oil exuded. The specimens from S. Warrier, Dewan of Cochin, and those from the Tinnevelly district, were almost equally good.—*M. E. J. R. Bickmore Archip.* 115. *Simmon's Comm. Prod. Crawfurd's Dictionary. McCulloch's Commercial Dictionary p.* 211. See Caryophyllus aromaticus. Eugenia caryophyllifolium. Myrtaceæ.

CLOVE TREE,

Caryophillus aromaticus, *Linn.*

A native of the Moluccas, introduced into Amboyna, Ternate, Sumatra, Malacca, Penang, Tenasserim, Tinnevelly, Travancore, Canara, Cochin. See Caryophillus aromaticus ; Cloves.

CLUB MOSS. Lecopodium. See Ferns.

CLUB-WOOD. of Tahiti, Casuarina muricata.

CLUPEA, a genus of fishes belonging to the group Clupeina and family Clupeidæ. There are 61 recognized species and 26 doubtful species ; they inhabit every part of the globe, and several of them are found in the south and east of Asia : a species of Clupea in Ceylon is called the poisonous sprat.

CLUPEA PILCHARDUS, the Pilchard, frequents the coast of Japan in the latter part of the month of June and commencement of July. They are taken by the seine nets. When fresh, they are sweet and nutritious, but they are chiefly valued for their oil, to obtain which they are piled up in heaps for 24 hours, are then boiled for some time in sufficient water to prevent their burning, then ladled into strong square presses, and the lever action of a lid presses out the oil. The oil after cleaning is used for lamps and the refuse for manure.

CLUPEIDÆ. A family of fishes of the order Physostomi. The *Clupeidæ* are placed by Cuvier between the *Salmonidæ* and the *Gadidæ* and they form the fifth and last division of his section 'Malacopterygiens Abdominaux.'

The family contains the following 18 Genera.

Cetengraulis	2	Species	Pristigaster	7	Species
Engraulis	37	,,	Chirocentrodon	1	,,
Coilia	10	,,	Spratelloides	3	,,
Chatoessus	10	,,	Dussumiera	2	,,
Clupea	61	,,	Etrumeus	2	,,
Clupeoides	3	,,	Albula	1	,,
Pellonula	1	,,	Elops	2	,,
Clupeichthys	1	,,	Megalops	2	,,
Pellona	14	,,	Chanos	2	,,

CULPEONIA PERFORATA, Cantor, inhabits the seas of Penang, Malayan Peninsula, Singapore, Sumatra. Total length $5\frac{3}{4}$ inch. They are of delicate flavour and pass in the settlements of the Straits under the denomination of 'Sardines,' in imitation of which they are sometimes preserved in oil. A resemblance to *Alausa argyrochloris*, Cuv. et Val. (Vol.XX. p. 440) is further increased by the impossibility of perceiving the teeth, either in the fresh state or in specimens preserved in spirits of wine. They require the aid of a lens to be distinguished in the skeleton. The general form, the yellow dorsal fin with a small black spot, give the present species a certain resemblance to *Meletta venenosa* Cuv. et Val. (vol. XX. p. 377). Some specimens of *Clupeonia perforata*, procured by W. T. Lewis, Esq., Assist. Resid. Councillor, Penang, were accompanied by the following account of a phenomenon witnessed by that gentleman during his official residence at Bencoolen. In 1822, great numbers of what was supposed to be this identical species, presented the unusual appearance of having red eyes. Many natives, after having eaten these fishes, were suddenly attacked with violent vomiting, which, in cases where remedies were not immediately applied, was known within an hour to terminate fatally. At the same time, such of these fishes with the ordinary silvery eyes, were, as formerly, eaten with impunity. This phenomenon recurred at Bencoolen during the seasons of 1823 and 1825, but not of 1824. It was surmised that the poisonous fishes had fed on a gelatinous substance which at that season exudes from the beautifully coloured coral reefs on that part of the coast of Sumatra. It is, however, more probable that the poisonous fishes were shoals of *Meletta venenosa*, an inhabitant of the Seychelles and the neighbouring seas, which happened in those seasons to visit Sumatra. M. Valenciennes describes this fish as being poisonous, and producing effects as noted above. In the Straits of Malacca *Clupeonia perforata* has never been known to produce bad effects.—*Cantor.*

CLUSIA, a genus of plants belonging to the natural order *Clusiaceæ* or *Guttiferæ* of Lindley, named after Charles de l'Ecluse, or Clusius, one of the most celebrated botanists of the 16th century. The genera of this order are now generally referred to the Garciniaceæ. —*Engl. Cyc. Vol.* II. *p.* 4.

CLUSIACEÆ, one of the orders of plants according to the natural system of Lindley. The genera of this order, Garcinia, Mammea, Mesua, Calophyllum and Kayea are now usually arranged under Garciniaceæ.

CLUYTIA, a genus of plants belonging to the natural order Euphorbiaceæ.

CLUYTIA COLLINA. Roxb.

Amanoa collina, *Baill.*

Madara-gass	Sing.	Vodisa	Tel.
Woadugu maram	Tam.	Kurseea	,,
Wodisha	Tel.	Kursee	,,
Kadishen	,,		

A small tree of Ceylon and the peninsula of India, frequent in the Walliar jungles of Coimbatore, not found by Dr. Gibson on the Bombay side. Flowers in the hot season, seeds ripen in December and January. Bark or outer crust of the capsule said to be exceedingly poisonous. Wood red coloured, exceedingly hard and durable but of small size. Notwithstanding its hardness, being very even grained, it is easily worked, and is, from its fine close grain, a pretty wood.—*Mr. Rohde's MSS. Dr. Wight, O'Shaughnessy p.* 552. *Thw.* 380.

CLUYTA MONTANA, syn. of Bridelia montana.

CLUYTIA OBLONGIFOLIA. Roxb. A tree of Assam and Sylhet; wood hard and durable.—*Roxb.* III. 730. *Voigt.* 155.

CLUYTIA PATULA. Roxb.

Pala	Tam.	Jegura	Tel.

A tree of Southern India, furnishing a very fine, close grained, heavy, chocolate colour wood. It grows to a large size, and logs measuring 4 to 5 feet in girth are purchasable in the market. The wood is pale red, the colour of dried rose leaves, hard and durable, very brittle, of specific gravity 75·8, and, when broken, the fracture seldom shows a fibre. It is used for rulers, knobs, handles for tools, such as chisels, &c.,

and in turning. Mr. Rhode says it is a much larger tree than C. collina, and is a native of moist valleys amongst the Circar mountains. It flowers during the hot season. *Roxburgh. Mr. Rohde's MSS. Voigt.* 155.

CLUYTIA SEMPERFLORENS ROXB. A shrub of Sylhet and Assam.—*Roxb.* III. *p.* 770.

CLUTYA SPINOSA. ROXB. syn. of Bridelia spinosa, *Willd.*

CLYDE, Colin, Lord, longer known as Sir Colin Campbell, whom Sir William Napier styled the war-bred Sir Colin. He was a military officer of the British Army, and commenced his career as a volunteer with the 9th Regiment of Infantry in the British Army, which he accompanied to Portugal. He afterwards served in Holland at the disastrous expedition to Walcheren, and again in the Peninsula under Sir John Moore, and he was present at Vimiera, Corunna, Barossa, Vittoria, and San Sebastian, at the siege of which he led the storming party, where he was again severely wounded, having been previously wounded at the passage of the Bidassoa. He was in the expedition of 1814 and 1815 to America. In 1842 he served in the war of China. In 1848 and 1849, in the Panjab campaign and at the passage of the Chenab, at Chillianwallah and Guzerat. He was engaged against the hill-tribes up to 1852. In the war in the Crimea he commanded the Highland Brigade, and to him was due the success of Alma, and he preserved Balaclava against an attack of the Russian forces. The triumphal termination of his long career of war however was in India, to which he was sent in 1857, when the Bengal native army revolted, and much of Northern India was in rebellion. He gathered troops about him until he could advance, and he did so without a single check. He died at Woolwich at the close of the Mutiny. See Battles of India, British India.

CLYPEA GLABRA. W. & A.

Cissampelos glabra. *Roxb.* | Cocculus Roxburghianus *D. C.*

A native of Silhet, root large, acrid, and used medicinally.

CLYPEA HERNANDIFOLIA. *W.* and *A.*

Cissampelos hernandifola, *Wd.*
„ hexandra, *Roxb.*
Nimuka BENG. | Nimi muka HIND.

A valuable diuretic.

CLYTHRA, a genus of Coleopterous insects of the family Chrysomelidæ.—*Eng. Cyc.* *V.* 2. *p.* 6. See Coleoptera.

CNETHOCAMPA. Some Ceylon caterpillars sting. A greenish one that occupies the Thespesia populnea, Neœra lepida, at a certain stage of its growth, descends by a silken thread and hurries away. The moth of this is supposed to be a Bombyx, near Cnethocampa, *Stephens.* Another, short, broad, pale-green, with black spines, that feeds on the Carissa jasminiflora, stings with fury, is of the moth Neœra lepida, *Cramer,* the Limacodes graciosa, *West.* The larvæ of the genus Adolia are hairy and sting with virulence.

COADJOE. JAV. Dress.

COAL. ENG.

Stinkull	DAN.	Carvoes de pedra	PORT.
Steenkoolen	DUT.	Carvoes de terra	,,
Steenkull	,,	Ugolj	RUS.
Charbon de terre	FR.	Kamenoe	,,
Steinkohlen	GER.	Carbones de tierra	SP
Welaety Kuela	GUZ.	,, ,, piedra	,,
Carboni fossili	IT.	Stenkol	SW.
Lithanthrax	LAT.	Simai Karri	TAM.
Arang tanah	MALAY.	Sima Boggu	TEL.

Coal differs considerably in its physical properties, and its varieties have obtained various names in the markets. The mineralogist generally divides it into coal without bitumen, and coal with bitumen. The first variety is known by the general name of *Anthracite.* It is sometimes very hard, has a high lustre, and is often iridescent. It is used for fuel, but it is often made into small inkstands, boxes, and other articles of use. This is more especially the case with the anthracite of America. Anthracite is the most common form of coal in the Welch beds.

The bituminous varieties of coal present greater differences of structure and appearance, and have a larger number of names; the quantity of bitumen, or substances resembling it, differ very much in different specimens of coal. It is generally softer and less lustrous than anthracite, although occasionally specimens exhibit a very brilliant fracture. Its specific gravity is less than that of anthracite, seldom exceeding 1·5, whilst the specific gravity of anthracite ranges from 1·3 to 1·75. The kinds of this coal are known by various names. The following are analyses of the different kinds of coal which occur in the Newcastle beds:

	Splint Coal.	Caking Coal No. 1.	Caking Coal. No. 2.	Cherry Coal.
Density......	1·302	1·247	1·280	1 266
Carbon,........................	74·961	83.588	87 809	84·694
Hydrogen,......	6·254	5·150	5·159	5 054
Nitrogen and Oxygen, ...	4·873	8·743	5·139	8·476
Ash,......	13 912	2·591	1 393	1 576
Relative heat by the same weight of Coal,........	110 340	114 930	122·560	116·630
Relative heat by the same volume of Coal,.... ..	108 90	111 310	119·030	112·070

Pitching or *Caking Coal* has a velvet or grayish-black colour. When first thrown on a fire it breaks into small pieces, but on the continued application of heat, the pieces again unite into a solid mass or cake. It burns readily with a yellow flame, but on account of its caking quality it is likely to clog the fire unless it is frequently stirred. The Newcastle beds mostly yield this form of coal.

Cherry Coal resembles in external appearance the pitch coal, and when exposed to heat it cracks and flies, but does not cake. It is very brittle, and on this account much loss is occasioned in mining it. It burns with a clear yellow flame. This kind of coal occurs in the Glasgow beds.

Splint Coal is a variety found in connection with the last, and is remarkable for its hardness; for which reason it is sometimes called hard coal. It is also found in Glasgow.

Cannel Coal has little lustre, is very compact and smooth in its texture, and breaks with a large conchoidal fracture. It burns very readily, giving out a clear yellow flame without melting. In consequence it has been employed for the making of candles—hence its name. It is often employed for making inkstands, snuff-boxes, and other articles of use. Their goodness for heating is tested by the quantity of water they evaporate :—

	lb.	oz.
Common Scotch Bituminous Coal ...	5	14
Carr's West Hartley Main (Newcastle)	7	5
Merthyr Bituminous Coal	8	0
Pure Welch Anthracite,...............	10	8½

The heating power of anthracite nearly doubles that of some bituminous coals.

Brown Coal, Wood Coal, Lignite, are names given to less perfect varieties of coal. They have a brownish-black colour, and burn with an empyreumatic odour. Under the miscroscope, the structure of the wood of the plant forming lignite can be readily detected. This is not the case with the other kinds of coal, where, although the woody fibre can be frequently made out, it has evidently undergone considerable change. The term *Brown Coal* is frequently applied to coal more recently deposited than that of the great coal-beds of the world, and is quite independent of its structure or any peculiarity in combustion. *Lignite* is also a term applied to the semi-carbonized forms of wood which are frequently found in deposits later than those of the coal deposits. It occurs in the tertiary deposits around all the shores of India. Most of these varieties of coal contain a large quantity of water, and the quantity of matter given off at a moderate heat by distillation is at least equal to that of the carbon contained.

Dysodil is a yellow or grayish highly laminated substance, often found with lignite, and burning vividly, and spreading an odour of assafœtida."—(*Ansted.*)

Jet is another variety of coal belonging to the bituminous series. It sometimes occurs in elongated reniform masses, and sometimes in the form of branches with a woody structure. It is soft and brittle, with a conchoidal fracture. Its specific gravity is but little greater than that of water. It is opaque, of a velvet-black colour, and has a brilliant and resinous lustre, and has been found in Southern India. The finer sorts are used in the manufacture of ornaments and trinkets of various kinds. The coarser sorts are burned as fuel. It gives out when burned a greenish flame and a strong bituminous smell, and leaves a yellowish ash. It contains about 37½ per cent. of volatile matter.—(*Eng. Cyc. Vol.* II, *p.* 10.)

Coal was worked in Bengal in 1774, by Messrs. Heatly and Sumner of the Bengal Civil Service, who obtained a monopoly. Their operations were in the Raneegunge coal-field, but they found it unprofitable, and the mines remained unworked till 1815, when Mr. Jones commenced operations. He too was unsuccessful, and in 1820, Messrs. Alexander and Co. undertook them. From that date, collieries increased in number, and in 1859, so many as fifty were at work employing 27 steam engines, producing 304,094 tons of round coal then. More than sixteen hundred people were then at work at the Raneegunge coal-mines These have been excavated to a depth of 130 feet. The mines extend under the bed of the Damoda, and a traveller can proceed three miles by torch-light through them. The coal beds are 300 feet in thickness. (*Tr. of Hind Vol.* I. *p.* 170). The quantity of coals brought down in 1840 was about 15 lacs of maunds. In 1850 it was nearly its double, and in 1860 it had become its quadruple. Coal has already been found in many parts of British India and of the south and east of Asia, and in several places is largely worked, to the greatest extent, perhaps, on the western side of Bengal, in China, and in Borneo. Only two generations have passed since it begun to be used in Bengal, but the total annual out-turn of good coal in India in the 11 years ending 1868, in Indian maunds, has been as under:—

	India Coal.		India Coal.
1858 ...	61,62,319	1864 ...	90,46,147
1859 ...	99,61,928	1865 ...	88,37,953
1860 ...	1,00,88,113	1866 ...	1,08,34,551
1861 ...	78,06,252	1867 ...	1,18,61,051
1862 ...	86,43,843	1868 ...	1,35,62,274
1863 ...	95,12,174		

Coal of good quality is obtained from the Koh-i-Meeriah, a hill a day's journey north of the Oxus (*Wood.*) Mr. Powell tells us (*p.* 33) that in the Kangra district, in Dera Ismail Khan, among the Murree hills, and in Jammu there are several places where glossy black lamellar lignite is found, associated often with shales, containing sulphate of iron, and belonging to strata of tertiary formation. In the Salt Range of the Punjab, there are two of the coal or lignite formations, which he distinguishes as Oolitic coal and Tertiary coal. Among the shales of the Oolitic series occurs what is called Kalabagh coal, which has to a certain extent been employed as fuel for the Indus steamers. This bed is in a ravine about a mile west of Kalabagh.

Carbon Coke...	37·5
Volatile bituminous inflammable matter..	60·0
Ashes, silica, &c...	2·5
	100·0

The most important coal strata in the Salt Range, however, are the beds occurring in the Eocene rocks of the tertiary series. It is principally in the lower alum shales that coal occurs, and it is found at many places all along the range, and also across the Indus in Chichalli range. The first coal occurs at Baghanwalla, 10 miles west of Jalalpur, being about half-way between it and Pind Dadan Khan. The seam is about 3½ feet thick at its widest part, and gradually thins out towards either end. The coal from the Bhaganwalla mine can be delivered at Mooltan for less than one rupee a maund. The coal of the Salt Range generally very much resembles that called splint coal, but is soft and brittle. It is not used as fuel by natives, but is ground to powder and administered with milk internally as an "osteocolla" for wounds and broken bones.

The seam of nummulitic coal appears to attain its greatest development at Baghanwalla, a place eight miles west of Jelalpur, close under the southern scarp of the Salt Range, and at the entrance to a gorge through which a stream issues; the way is up this gorge, and at a distance of about 3½ miles from the village the seam becomes visible. At Baghanwalla, the seam, when cut through in the watercourse, was three feet six inches thick, occasionally a little more.

The prospect of obtaining Kashmir coal in the Jammu territory, at one time attracted considerable attention, more especially as the engineer who noticed the workings at Dundeli confidently reported the strata to be of the carboniferous series. Since then, however, the coal of Dundeli has proved to be like the rest of Eocene origin among nummulitic limestones, but undoubtedly the coal may be of local value. A large lump of it in the Lahore Museum might pass for "Wallsend," so good is its appearance. The coal at Bunnoo, from the Wuziri hills, has been mentioned with some hope; and specimens of coal have been sent from Kangra and Dharmkot, at Dharmsala, but these also are tertiary and limited in quantity; and, in 1854, the verdict on Punjab coal, was that "It is valuable only for local consumption and to supplement wood, not for export, or to supply the province at large."—(*Powell, Handbook, Econ. Prod. Punjab, p.* 33.)

The supply and the consumption of coal in India during 1868 and the ten previous years, have been as under. The figures are in maunds of 80 lbs:—

	Coal raised in all India.	Coal raised in Bengal	Coal imported into Calcutta.	Total consumption in Bengal.
1858 ...	61,62,319	61,62,928		
1859 ...	99,61,928	99,61,928	12,29,160	1,11,91,088
1860 ...	1,00,88,113	1,00,88,113	4,96,585	1,05,84,698
1861 ..	78,06,252	77,85,085	12,85,203	90,70,288
1862 ...	86,43,843	86,30,843	6,76,687	93,07,530
1863 ..	95,12,174	95,04,975	10,36,407	1,05,41,382
1864 ...	90,46,147	90,32,405	18,18,132	1,08,50,537
1865 ...	88,37,953	88,10,425	16,16,143	1,04,26,568
1866 ...	1,08,34,551	1,07,90,035	9,14,427	1,17,04,462
1867 ...	1,18,61,031	1,18,47,178	11,46,734	1,29,93,902
1868 ...	1,35,62,274	1,34,65,829	19,28,591	1,53,94,420

The 479,233 tons raised in 1867 rose to 547.971 in 1868, and almost the whole was from the Raneegunge field. One-half of the supply was consumed by the East Indian Railway. For several years there was a decrease in the demand for coal for other than railway purposes, but in 1867 and 1868 the tide turned. Still the consumption of coal by other than railways in 1868 was not so great as in 1863; it was 7,610,070 maunds against 7,667,258. The Raneegunge coal was used for locomotives as far as Umballa, and on the completion of the Delhi railway, it will doubtless compete with English coal even at such a distance as Lahore and Mooltan. The East Indian Railway will obtain a supply for its upper sections from Kurhurbalee. In the Raneegunge field in 1868, there were 61 engines of 867 horse-power in all, against 28 engines of 490 horse-power in 1860. The Bengal Coal Company turned out half the whole demand, or more than 6 millions of maunds, Gobind Pundit about 2½, the Beerbhoom Company 1⅓, the Equitable Company rather more than 1, and the East Indian Coal Company 830,605 maunds. Coal has been traced from Burdwan to the westward, across the Valley of Palamow, and from thence through the district of Sohagpore to Jubbulpore, and the neighbourhood of Saka, and the Towa river in the Nerbudda territories, 420 miles distant from Burdwan. Observing nearly the same parallel of latitude, it is found in the province of Cutch, whilst it is extended in the same line across the centre of India to the N. E. extremity of Assam, forming a zone that stretches from 69° to 93° E. longitude, embraced in an opposite direction between the 20° and 25° N. latitude. Chanda, on the Warda river, Cuttack and Arracan being its southern boundary, whilst the Vale of Callinger west of Allahabad, the Teesta river at the base of the Sikhim mountains, and Upper Assam, form the northern limit. The bituminous coal of Assam, the finest in India, has been little used owing to the difficulties of communication with the Brahmapootra. In Burma, the Prome district, up to the frontier of British Burmah, so far as that lies to the east of the Irawadi, has nummulitic rocks, limestone, &c. They may be found to contain petroleum, as they occasionally do elsewhere. There are, however, other situations in which coal has been found distinct from this extensive and well defined belt, such as Hurdwar and Attok; the first near the source of the Ganges, and the second near that of the Indus. Coal is found in the Manbhoom district, on Parisnath hill, at Huseinabad, or Hosungabad, at Bora-ghur, Cuttack, at Talcheer and Ungot : in the Nerbudda valley, at Kamrup in Upper Assam, and Moradabad. In the Damoodah valley, and the adjacent countries of Bheerbhom and Poorooleah Behar. Chanda is in 19° 56'; 79° 19', in E. Berar, two miles from the north of the Warda river; the mean height of the plain surrounding the town is 761 feet. The level of the Godavery, 525 feet, and coal has been found in its vicinity in abundance. The coal of Googoos near Chanda, at its first trial, was pronounced to be very dirty, and unsuited for locomotive purposes. It contains great quantities of gas, though it could not produce a welding heat. The deposit at Chanda occupies 150 square miles. Dr. Oldham has been satisfied with the result of his prospecting of the Chanda coal fields. A bore has been sunk near Telwassa on the Warda, through two feet of shale and more than ten feet of coal, of a better quality than that tested at Googoos, and resembling the finer coal of the Bullarpore beds. At Nowkera, to the south-east of Googoos, another bore hole has been sunk through fifty feet of coaly stuff with only a few partings of shale. The demand of centuries, Dr. Oldham tells us, is already provided for. The best found objection to the Chanda coal—a sudden enlargement or contraction of the seam, accompanied often by a change in the quality—is now in a great measure removed.

The great Deccan trap area extends from Neemuch to the Kistnah river. In the Singhbum country, are copper-bearing rocks, quartzites, slates, limestones, &c. These also cover the larger portion of the districts of Cuddapah and Kurnool, and appear, geologically, to represent in the south the older portion of the great Vindhyan series. Rocks of the same mineral character appear under the great flows of the Deccan trap, and resting quite unconformably on the gneiss rocks in parts of the Raichoor Doab, the vicinity of Belgaum, and under parts of the ghats on the western coast. That they belong to the same general series as the rocks in Cuddapah and Kurnool there is no question. Stretching along the northern escarpments of the Nerbudda valley, passing across the district of Jubbulpur, and forming the whole of the Rewah country north of the Sone, this great series extends in a continuous mass far into Bengal, where the picturesque cliffs of the Rhotasgurh hills form its steeply scarped limits on the left bank of the Sone. Returning towards the west by Sasseram, Chunar, Mirzapur, and a little south of Allahabad, the boundary thence stretches in a great sweeping bay or curve to the south by Kirwee, Bijawur, and crossing the Beas river, trends again north to Gwalior and Agra, and Futtipur Sikri, whence the line again trends to the south and extends to near Neemuch. The rocks belonging to this widely extended and important group, constitute one of the most remarkable and interesting series in all India. They become also still more important to the Indian Geologist when he finds representatives of the same great series covering immense areas in the Madras Presidency, Cuddapah, Kurnool, &c., stretching northwards along the flanks of the ghats, and up the Godavery country, until, in Berar and the adjoining parts of the Nizam's dominions, and again in Bustar and Chutteesgurh, they constitute the rocky basis of very extended districts. They are divisible into several different groups characterized by peculiar lithological distinctions, and throughout the whole area described present a wonderful constancy of mineral composition.

In Chanda and Berar, one of the great sources of doubt as to the extent of the coal deposits arose from the fact that the beds in the group of rocks in which the coal here occurs (known to Indian Geologists as the Barakur group), had invariably a tendency to exhibit very great variation both in thickness and quality within short distances. They are often of great thickness locally, but thin out, and nearly disappear within short distances: this variation also being not only in the thickness, but also in the quality, of the beds, so that what shows as a bed of good coal in a place may, within a few yards or a few hundred yards, pass into a shale without coal or even into a sandstone. But about 15 miles north of Dumagudiam, near the junction of the Tal-river near Lingala, coal was found. Mr. Medlicott is of opinion that the present limits of the coal measure fields in N. India coincide approximately with the original limits of deposition, and are not the result of faulting, or even mainly of denudation. All these successive beds (possibly with the exception of the Talchir) representing an enormous lapse of time, agree in one respect, that they seem to be purely fresh-water (fluviatile or fluvio lacustrine) or estuarine deposits. The Kanigunj, the Jherria, the Bokaro, the Ramghur, and the Karunpura fields all belong to the drainage basin of the Damoodah river.

Mr. W. T. Blanford reports that the coal-bearing (Damuda) beds of Korba, extend for *forty miles* to the eastward, as far as Rubkub in Udipur (Oodeypore). They also extend far to the south-east towards Gangpur, and to the northwards towards Sirguja, and in all probability are continuous, or nearly so, with the deposits of the same nature known to occur in those districts. Main Pat and the neighbouring hills, and all the country on the road from Main Pat through Chandargarh and Jashpur to Ranchi, consist of metamorphic rocks with the exception of a cap of trap and laterite on Main Pat. Indications of the existence of coal seams were afforded by the occurrence of fragments of coal in the rivers, especially in the Mand. He found a few seams near Chitra, twelve miles west of Rabkub and nearly thirty east of Korba. Two or three are seen in the Mand, about three to four miles east-north-east of Chitra, but they are only from a foot to 18 inches in thickness. In a small stream, the Koba Naddi, which runs south of Chitra, one seam about three feet in thickness is seen near the village of Tendumuri, more than a mile south-west of Chitra. It is nearly horizontal, having a very low irregular dip to the west or south-west. Part consists of fair coal, the remainder is shaley. The only seam examined from which it is possible that a useful supply of fuel might be obtained, is exposed in the same stream rather near to Chitra, being about a mile from that village, close to the boundary of the village of Tendumuri. It appears to be of considerable thickness, perhaps 20 feet, and the lower portion appeared to be fair in places. The dip is about 15° to north-north-west. Lieutenant Sale, of the Chota Nagpur Topographical Survey, found a seam of coal about four miles north-west of Rabkub in a small stream running into the Mand, and this may be the source of the blocks in the river bed. Several coal localities have been lately found by the officers of the Topographical Survey, and recorded in their maps. They are all north of Korba and Udipur, and the Rajah of Jashpur said that coal occurred in his territory in the Khurea country, twenty-four miles north-west of Jashpur-Nagar, about one hundred miles or rather more west by south of Ranchi.

The Talchir field, near Cuttack, the detached areas of Talchir sandstones in the Sumbulpur country, and the Belaspur field, are limited to the Mahanuddy basin; the Palamow, the Singrowli, and South Rewah coals are all strictly confined to the Sone basin; the Chanda field, and the continuation of this field in detached areas down the Godavery valley, considerably below Dumagudiam, all are strictly confined to the basin of the Godavery and its affluents, while similarly the coal-fields of the Nerbudda valley are all limited to the drainage basin of that river. In other words, the great drainage basins of this country were on the large scale marked out, and existed (as drainage-basins) at the enormously distant period which marked the commencement of the deposition of the great plant-bearing series.

At Cherra Ponji, a bed of coal is raised on an insulated summit 300 feet above the level of the sea; the accompanying rocks are identical in character with those having a similar relative position to other beds of coal of the same formation whether above or below the level of the sea. The insulated situation of the coal measures at Cherra Ponji affords an excellent opportunity for their examination, owing to the great extent of surface which is free from soil and alluvium, so that the geologist has no obstacle to encounter but the dense vegetation peculiar to the climate. The great sandstone formation, composing here as elsewhere the base of the coal measures, forms the lofty front of the mountains facing the plains. The lower beds consist of a coarse conglomerate, resting on greenstone after the manner of similar conglomerates in nearly all countries in which their fundamental rocks have been observed. When we consider that this is not merely the case with the sandstone of the Kassya mountains, but that the whole series of sandstones throughout Central India rest on the flanks of ranges of sienite, greenstone, and basalt, we cannot apply more appropriate language in elucidation of this general feature in our geology, extending as it does over an area of 1,800 geographical miles in length, and 300 in breadth, than the following remarks of De la Beche:—'As we can scarcely conceive such general and simultaneous movements in the interior strata immediately preceding the first deposit of the red sandstone series, that every point on which it reposes was convulsed and threw off fragments of rocks at the same moment: we should rather look to certain foci of disturbance for the dispersion of fragments, or the sudden elevation of lines of strata, sometimes perhaps producing ranges of mountains in accordance with the views of M. Elie de Beaumont. Had this idea resulted from observations in India, rather than in Europe, it could not have been more appropriate, or formed so as to convey a more accurate notion of the nature and connexions of our red conglomerates. Ascending through the series of beds of this rock in theKhassya mountains, we find the coarser strata occasionally reappear, succeeded again by the normal beds, which are fine, durable, and grey coloured. In some places, but especially when approaching the upper third of the series, the colours become variegated, and ultimately the whole, or nearly so, assume a brick red colour. The higher strata form a barren tableland, with lengthy sloping summits, extending to a distance of ten miles towards the interior of the mountains. The limestone and coal repose in an elevated position on either side of the adjoining summits; whether the rocks of which these last are composed occupy a superior geognostic position with regard to the coal or not, is somewhat doubtful; but as far as it is safe to determine from inquiries of a partial nature, we may consider the sandstone from the base of the mountains to the higher peaks along their flanks as an uninterrupted series of beds, and consequently, that the coal is a newer rock than the sandstone composing adjacent summits. In the sandstone upon which the coal and limestone immediately rest at Cherra, a bed of boring shells occur composing a considerable portion of the rock in certain places. The shells were of the size and form of the Teredo navalis, but they are mineralized so unfavorably as to render it doubtful to what genus they really belonged. Reposing on the teredinite sandstone near Cherra, a detached accumulation of limestone, with alternating beds of sandstone, coal, and shale, disposed in horizontal strata, form a precipice about a hundred feet high from the base. Coal, to a thickness of fifteen feet in places, occupies a middle position in these strata. A bed of loose, coarse and sharp sand, five feet deep, forms the roof of the coal, and a layer of soft sandstone, about two feet in thickness, rests directly under the soil upon a bed of clay about twenty feet deep. The clay holds an intermediate position between the roof of the coal and the superincumbent sandstone; it is of a yellow colour, but dark in some places, and intersected horizontally with thin layers of gravel coal, and an iron pyrites of little value and in small quantity. From their softness, these beds are easily though not uniformly acted upon by surface water, which peculiarity may have given rise to that waved appearance observed by Mr. Jones and Captain Sage in the Burdwan and Palamow coal-fields.

The coal of Cherra is excellent for many purposes. Dr. Hooker found it generally used by the Assam steamers, and was informed on board that in which he traversed the Sunderbunds, some months afterwards, that her furnaces consumed 729 lbs. per hour; whereas the consumption of English coal was 800 lbs., of Burdwan coal 840 lbs., and of Assam 900 lbs.—*Hooker Him. Jour., Vol.* II., *page* 303

Arracan.—Coal has been discovered at Kyuk Phyu in the Arracan district near Oogadong, close to the anchorage of ships. It was first observed by Lieutenant Foley in 1833, and afterwards described by that gentleman and Captain Margrave (vol. II. Asiat. Jour. p. 595). The quality of this coal is good, but the quantity so far as it has yet been discovered is deficient. At Sandowy in the same district, Lieut. Mackintosh found coal in the Kingtellie neighbourhood; one specimen of this coal, mixed up with silicious matter, is said by Mr. Walters to form the substance of an entire hill (vide Jour. Asiat. Soc. II, p. 264): iron ores are also said to occur here in considerable quantity.

In Burma, this mineral is known to occur at three separate localities, all lying westwards of the Irawadi, at distances varying from five to seven miles of it. The most southerly of these localities is about a mile and a half west of the small village of Tembiung, where it crops out for about fifty yards in the bank of a stream dipping to west 30°, and south 15°. The black bed in which the coal is there found is four feet thick, but only two feet nine inches of this is coaly, and the mineral is flaky, cracked and jointed; the best layers of coal are about one foot three inches thick at the bottom of the bed. This coal is of a blazing character, burning freely and rapidly with a good blaze, but with the considerable ash of 27 per cent. A second locality is about five miles further north along the upper waters of the Kibuing stream about five miles westward of the village of Thingadhau. The coal bed is five feet six inches thick, but the seam of coal which is flaky and woody is about three feet eight inches to four feet in depth. It contains jet-looking masses, and drops of resin, which flame brightly. The third locality lies about eight miles north-west of the village of Thingadhau, being exposed in the Manda Kyoung or stream. It is flaky but hard, compact, and jetty, with small imbedded lumps of ambery-looking resinous matter. This coal is of better quality and more durable, the roof is strong and the floor also good, and this is unquestionably the most promising of the three localities.—*Dr. Oldham in Yule's Embassy. p.* 335.

Coal has been found in the Malay peninsula, Sumatra, Java, and Luzon, and in Borneo, of good quality and suited to economical uses. A seam of the Borneon coal was first discovered in one of the islands in the river of Brunai where it crops out. It was afterwards found in the mainland, near the banks of the same river, and subsequently in the island ofLabuan about 12 miles from its embouchure. In these places it is at present mined by European skill and capital, and been found, on ample trial, superior to any Asiatic coal hitherto tried. The coal on the left bank of the Borneo river has been traced for several miles into the interior. On the southern coast of the island coal has been found in the territory of Banjurmasin and mined by the Dutch. This from all accounts is of the same quality as the coal of the northern side, and may be a continuation of the same field, which would make the Borneon coal fields the largest in the world, after those of North America. Steam navigation has given a value to the coals of Borneo, which, without it, in a country inhabited by rude people and covered with forest, might have lain for ages as useless as the lime and sandstones in which it is imbedded.—*Crawfurd's Dictionary, page* 195.

Coal occurs in several parts of Tenasserim on the Great and Little Tenasserim Rivers : on the Len-ya, at Thyet-Myo.

Mergui possesses valuable fields of coal. The beds are very extensive, from nine to eighteen feet thick, and about sixteen feet from the surface. The principal mine is about ninety miles up the great Tenasserim river. It was at one time worked by Government, but didnot prove remunerative and was suppressed from want of management. The Mergui coal was regarded by the Coal Committee as true mineral coal, but of inferior quality. A similar coal is found on the banks of Tenasserim north of the latitude of Tavoy; but Capt. Tremenheere regards both as superior varieties of lignite. " Lignite or brown coal," says Hitchcock, " appears to be peat which has long been buried in the earth, and has undergone certain chemical changes, whereby bitumen has been produced. Bituminous coal is probably the same substance, which has been longer buried in the earth and has undergone still further changes." The coal of the great Tenasserim valley appears to have been so long buried in the earth that the best parts of it are better than ordinary lignite and equal to the inferior portions of bituminous coal, which is true of beds of lignite in other parts of the world. " Eighty miles from Mergui, inexhaustible beds of coal of an uniformly good quality occur on the Thian Khan, one of the main branches of the Little Tenasserim. The various beds are described to be what is called cannel coal, remarkable for consisting of upwards of 50 per cent. of bitumen, a superior blazing material, which is the main point in getting up steam." Coal has also been found on the banks of the Lenhea river, south of Mergui. It is a field for examination.

Deposits of coal have been found along the Siamese coast from Penang to the vicinity of Junk Ceylon. In 1836, specimens of coal were brought from Trang, one of the lower provinces of Siam, and subsequently a deposit was discovered at Tama, not Gurbie. Coal was found at Sungei-Kamuning, about sixteen miles above Trang, and at a place, also, nearly east of Pulo Mutiara or Pearl Island, about twelve miles to the southward of S. Kamuning. It was also found at the Pulo Tiga island, lying off Purlis, on the coast of Keddah, but although this coal lies about thirty miles further south than the Trang coast coal, or rather S. Kamuning, Colonel Low was inclined to believe them to be of the same coal field. Another coal was found in the bay north of Tanjong Bumbong on the coast of Trang, betwixt the last place and Kamuning.

The coal in Ligor and Kedah on the west coast of the Malay Peninsula is identical in composition, in the proportion of volatile matter to charcoal, with some kinds of cannel coal. Sp. Gr. 1·245,—Volatile matter, 46·746 ;—Charcoal 52·071 ;—Ash 1·183=100. That found on the southern coast of the island of Junk-Ceylon, (well known for its tin) and which occurs near the bank of a river and about two or three hundred feet from its mouth, was reported by Professor Ansted as adapted for every purpose to which coal is economically applied.

	Sp. Gr.	In 100 parts.		
		Volatile matter.	Coke.	Ash.
Junk Ceylon Coal	1·25	60·40	39·58	2·50
English Cannel Coal	1·27	60·00	40·00	0·30

The position indicated as a deposit of coal, is in Lat. 7° 44′ N. and Lon. 99° 15′ E., the southern point of Pulo Lontar bearing S. W. by S. Telebon S. S. E. and Tanjong Cotton N. E. by N. Some of it takes on the polish of fine jet. The Ligor specimens of this jet are the best.

Coal is found at Rettie on the south-east coast of Sumatra, which bears a strong resemblance to that from Junk-Ceylon, sp. gr. 1·23. Volatile matter 51·43. Charcoal 48·57. Ash not determined.

In the coal of Ligor and Kedah on the west coast of the Malay Peninsula, one portion of jet had a beautiful lustre and high polish. The fracture shows a fine velvet black or brownish black. It was found by a Penang Siamese on the southern coast of the island of Junk-Ceylon, (well known for its tin) near the bank of a river, and two or three hundred feet from its mouth. This rested on a layer of sand, beneath which, and in contact with the coal, was a thin layer of blue clay. Colonel Low was led to think that the coal extends from the beach to a small hill or elevation which stretches for about 1000 feet in a N. to S. direction along the shore at a distance varying from 50 to 200 feet. in about latitude 7° 41′ N. and longitude 99° 15′ E., the southern point of Pulo Lontar bearing S. W. by S. P. Telebon S. S. E. and Tanjong Cotton N. E. by N. (*Journ. Ind. Arch. III.* 153, 154, 161, 738). On the Malay Peninsula, at various localities along the western coast of that region, at Katani, Ayer Rammi, and Bencoolen, at the entrance of the river Keteh, and along the banks in the Batang Gansal and the Ingragiri, with, it is supposed, the Kampar. In Sumatra, coal of serviceable quality exists, also in Banka and Madura. (*New Rotterdam Courant, Sept.* 23, 1851.) In Borneo Proper (*Low Sarawak*, 12), on Pulo Keng Arang near the north end of Labuan, at various places on the west, south-west, and south-east coasts of Borneo, at the Bunut, on Pontianak, the country of Banjarmassim, where immense deposits are found, Pagattan, and on the Koti river, mines are worked. A small field has been found near Macassar in Celebes; but the coal is of a worthless description. (*See Singapore Free Press, July* 19, 1850, *which describes the coal treasures of the Archipelago*). It is said that fine specimens have been obtained from the Philippine province of Alley (*Mallat, Les Philippines, I.* 122) but the existing notices of them are slight. In Labuan large mines have been opened.

In Borneo, coal is associated at *Pulo Chirmin*, which is about 200 feet high, with a ferruginous sandstone, and overlaid by a mass of red sand and clay. At *Pulo kang Arang* again, the coal is overlaid by white sandstone. Borneo, as a mineral country is perhaps the richest in the East; producing gold coal, antimony and iron, while caoutchouc and gutta percha are amongst its vegetable products. The coal and iron fields of the Balawi or Rajang are more extensive than any yet discovered on the island. From the river Baram, coal is traced to the upper parts of the Bintulu, and thence southward to the Rajang river, on the left bank of which, at Tujo-Nang, there is a seam exposed upwards of thirteen feet in thickness. At different other parts of the river, and also in several of its branches, coal is found in abundance.

In China, coal is generally used for fuel in all those places which have been visited, and the supply might probably be greatly increased by introducing machinery and European modes of working it. The boats on the North river, below Nanhiung, lie near the mouth of a horizontal shaft worked into the mine, above which the cliffs are scraped down as the shaft advances. The ignorance of the Chinese of the best modes of draining and ventilating mines, must necessarily prevent the working of many of them beyond a certain depth and extent. The mountains of Shansi and Chihli supply large quantities of this valuable mineral, and many boats find constant employment in bringing a coarse anthracite from Kaichan in Liantung to Tientsin. One locality of the mine in Liantung is about lat. 39° 10′ N., and long. 121° 25′ E. Several kinds, both of anthracite and bituminous coal, have been seen in marts at the north ; and coal dust and refuse is mixed with a little moistened clay at Peking, and made into cakes for the fires of the poor : that which is brought to Canton is hard, and leaves a large proportion of ashes after combustion ; during ignition, it throws off a suffocating sulphureous smoke, which prevents the natives using it for cooking. It is employed in the manufacture of copperas from hepatic iron pyrites, according to Du Halde, but is less frequently employed in the arts than it would be if the people knew better how to use it.

Coal is found abundantly at Ke-Lung in Formosa. Coal is found in the districts around Negata in Japan. The Russians, under the command of a Russian officer, have opened coal mines rather lower than Tonquien Bay. —*Singapore Free Press, April* 2, 1852. *John's Indian Archipelago, Vol. II., p. from* 349 *to* 351. *Colonel Low, No.* 3 *Journ. Ind. Arch. Williams' Middle Kingdom, p.* 242. *Hodgson's Nagasaki, p.* 227. *McCulloch's Dict. p.* 287. *Journ. Ind. Archip. Eng. Cyc. Calc. Rev. Annals Ind. Admin. Mason.*

COAPARI, properly Cobbari tengai. Tam. Copra. Cocoanut fruit dried.

COAYA, properly Goia Maram. Tam. Psidium pyriferum.

COBÆA SCANDENS. A fast growing creeper, flowers purple, the stems attach themselves to any rough surface, like some of the Cereus species; it is well adapted for screening walls.—*Riddell.*

COBALT and Nickel occur in Ceylon, near Saffragam.

COBARI AKU. Tel. Leaves of Cadaba Indica.

COBEBAS. Port. Cubebs.

COBITIS, a genus of fishes belonging to the abdominal Malacopterygii, and family Caprinidæ. This genus includes the Loaches. —*Engl. Cycl. p.* 41.

COBRA, the ordinary name by which Europeans in India designate the Naga genus of venemous Colubrine snakes of the family Elapidæ. There is only one species, the Naga tripudians which has a moderate body with rather short tail. It has a small or moderate eye, with a round pupil, a poison fang in front of the maxillary, which is but little moveable or erectile, and only one tooth behind. The anterior ribs are elongate and erectile, and the skin of the neck is dilatable. When the cobra rises in play, or for amusement, it spreads out the skin of the neck, from which it gets the Spanish name of "Cobra di Capello," in English the "Hooded Snake." Its bite is certain death. It is said that the poison can be combated by injecting potash into the veins, but, owing to the rapidity of the poison's action, this, even if true, is valueless. Notwithstanding this, the natives of Ceylon do not kill the cobra when caught, but enclose it in a mat bag with some boiled rice for food, and place it thus in a flowing stream. In Guzerat the hindoos do not kill this or any other snake. There are two varieties of the Naga tripudians—

Var. (a). The spectacled or Bin-ocellate cobra has its neck, on the steel brown skin, marked with a white, black edged ⊏ or ⋖ enclosing at either extremity a black ocellus. This is only seen when the hood is expanded. It is found in Southern India and in Burmah? It grows to 5½ feet.

Var. (b). The monocellate or one marked cobra, has a plain white ocellus, with black centre and margin, and grows to 4 feet in length. It is the cobra of Central India and Burmah. (*Nicholson.*) The cobra is worshipped by all hindus, and its form, as an idol, with three or nine heads, in stone or brass, may be everywhere seen in India. It is often bending over the idol of the lingam. The cobra sometimes swims out to sea. Indian genera and species of the family Elapidæ, are as under:

Hamadryas elaps. *Schl.* Andamans.
Naja tripudians. *Merr.* Bengal, Pegu, Tenasserim.
  Syn., N. lutescens. *Lour.*
    N. kaouthia. *Lesson.*
    N. sputatrix. *Rein.*
    N. atra. *Cantor.*
    N. larvata. *Cantor.*
Var. *a* with spectacles.
  „ *b* without „

Bungarus cæruleus. *Schl.* Calcutta, Pegu.
  „ tropidonotus. *Schl.*
  „ Ceylonicus *Gunth.* Ceylon.
Xenurelaps bungaroides. *Cantor.* Cherra punji.
Megærophis flaviceps. *Rein.* Mergui.
Elaps McLellandii. *Rein.* Assam, Pegu.
  „ melanurus. *Cantor.* Pegu, Tenasserim.
  „ intestinalis. *Laur.* Singapore.

COBRA-TEL. A term applied in Ceylon to a decoction of the heads of Cobras and saliva of Iguanas or Kabra goyas,—and supposed by the Singhalese to be deadly poisonous.

COBRE. Port. Sp. Copper.

COBRI. Can. Cocoa nut palm.

COCATIYE. Sing. Aponogeton crispum.

COCCHI. It. Cocoa-nut palm.

COCCIDÆ of Leach, the *Gallinsecta* of Latreille, a family of insects placed by Latreille and others at the end of the *Homoptera.* The insects belonging to this family live upon trees or plants of various kinds: they are of small size, and in the larva state have the appearance of oval or round scales, hence they are called Scale Insects. They are closely attached to the plant or bark of the tree they inhabit, and exhibit no distinct external organs. At certain seasons, when about to undergo their transformation, they become fixed to the plant, and assume the pupa state within the skin of the larva. The pupa of the male has the two anterior legs directed forwards, and the remaining four backwards; whereas in the female the whole six are directed backwards. When the males have assumed the winged or image state, they are said to issue from the posterior extremity of their cocoon. In the spring time the body of the female becomes greatly enlarged, and approaches more or less to a spherical form. In some the skin is smooth, and in others transverse incisions or vestiges of segments are visible. It is in this state that the female receives the embraces of the male, after which she deposits her eggs, which are extremely numerous. In some, the eggs are deposited by the insect beneath her own body, after which she dies, and the body hardens and forms a scale-like covering, which serves to protect the eggs until the following season, when they hatch. The females of other species cover their eggs with a white cotton like substance, which answers the same end. Of the species of this genus, Coccus maniparus is said to puncture the Tamarix gallica, and produce the Arabian manna. C. cacti produces the cochineal, and C. lacca the lac.—*Eng. Cyc. Vol. II, p.* 43. See Coccus.

COCCINEA INDICA. W. and A.

Coccinea grandis, *Wight's Ill.*
Bryonia grandis, *Linn.*
Momordica monadelpha, *Roxb.* iii. 708, *Rheede.*

Beemboo	BENG.	Kovel	MALEAL.
Tela kucha	„	Govel	„
Ken-bung	BURM.	Vimbika	SANSC.
Tsa-tha-khwa	„	Golaroo	SIND.
Bhimb	HIND.	Kové	TAM.
Kanduri HIND.	of PANJ.	Donda; Bimbika	TEL.
Gol-kundru „	„ „	Kakidonda; Kai-donda	„

A climbing shrub, grows all over India, in flower and fruit the whole year, green fruit used in curries, ripe fruit eaten raw, and greedily sought after by birds. The leaves are applied externally in eruptions of the skin, and the plant internally in gonorrhœa.—*Roxb.* iii. 708. *Voigt.* 59. *Dr. J. S. Stewart.*

COCCOIDEOUS PARASITES. See Coleoptera; Coccoidæ; Coccus.

COCCOLOBA, a genus of plants belonging to the natural order *Polygonaceæ*. C. crispata grows in Nepal, and Wight, in Icones, figures C. Indica, C. excoriata, C. pubescens, and C. uvifera is a West Indian plant. The fruit of the last is sweetish and its wood is used for cabinet work.—*Voigt. Eng. Cyc. Vol.* II. *page* 45.

COCCOTHRAUSTES, a genus of birds belonging to the order Insessores, family Fringillidæ, and sub-family Fringillinæ. Three species of Coccothraustes occur in S. Eastern Asia.

Coccothraustes vulgaris. The Haw-finch of Europe, Siberia, occurs in China, Japan (*qu.* C. Japonicus, *Schlegel* ?)

COCCULUS, a genus of plants belonging to the natural order *Menispermaceæ*, consisting of climbers, whose leaves are usually more or less heart-shaped, and the flowers small, and either white or pale green, in loose panicles or racemes; in most cases they are diœcious, and are always very minute. The species are usually powerful bitter febrifuges. The following occur in the south and east of Asia.

C. acuminatus
C. calophyllus.
C. cordifolius.
C. crispus.
C. macrocarpus.
C. malabaricus.
C. megaspermus.
C. oleracea.
C. hexagynus.
C. incanus.
C. laurifolius.
C. plukenetii.
C. tomentosus.
C. villosus.

COCCULUS ACUMINATUS. D. C.

C. radiatus, *D. C.*
C. polycarpus, *Wall.*
Menispermum acuminatum.
M. radiatum, *Lam.*
M. polycarpon, *Roxb.*
Tiliacora racemosa, *Coleb.*
T. acuminata, *Miers.*
Braunea menispermoides, *Willd.*

Tila kora	BENG.	Vulli kaniram	MALEAL.
Baga-luta	HIND.	Tiga mushadi	TEL.

A trailing shrub, grows in both peninsulas, Oudh, Assam; has small cream coloured sweet scented flowers.—*O'Shaughnessy, p.* 202. *Voigt.* 331.

COCCULUS BAKIS, Senegal Root, diuretic and very bitter, used in intermittents and gonorrhœa.—*O'Shaughnessy.*

COCCULUS BURMANNI. D. C. syn. of Clypea Burmanni, *W and A.*

COCCULUS CEBATHA, in Arabia an ardent spirit, called Khamr-ul-Majnun, is distilled from its berries.

COCCULUS CONVOLVULACEUS. D. C. syn. of Cocculus cordifolius, *D. C.*

COCCULUS CORDIFOLIUS. D. C.

Cocculus convolvulaceus, *D. C.*
„ verrucosus, *Wall.*
Menispermum glabrum, *Klein.*
„ cordifolium, *Willd.*

Gulancha	BENG.	Gulancha, Gurcha, Gudancha	HIND.
Tsin-tha-ma-nway	BURM.	Cit-amerdu	MALAY ?
Gul-bel, Gulwail	DUK.	Sitamerdu	MALEAL.
Heart leaved cocculus	ENG.	Shendi kodi	TAM.
		Tipatinggé	TEL.

A valuable plant growing in the peninsula, in Bengal, Burmah and Assam. Its stem is succulent, twining and perennial, running over the highest trees. The root, stem and leaves are used in medicine in decoction. The root is large, soft and spongy, and is given fresh in gonorrhœa: in powder, 15 to 30 grs. are emetic, the decoction is called Pachuna. An extract called Palo is prepared from the stem.—*O'Sh.*

COCCULUS CRISPUS. D. C.

Menispermum crispum, *Linn.*
„ verrucosum, *Flem.*
Finus felleus, *Rumph.*

A twining plant of Sumatra, Java and the Moluccas, with a tubercled or warted stem; it is employed by the Malays for the cure of intermittent fevers.—*O' Shaugh.*

Menispermum fenestratum, Roxb, is in great repute among the Singalese, who slice it, steep it in water, and swallow it along with the infusion as a stomachic.—*Eng. Cyc. page* 46.

COCCULUS FIBRAUREA of Cochin-China and China; used by the Malays in agues and liver diseases.—*O'Shaughnessy.*

COCCULUS INDICUS. Eng.

Hong	BURM.	Galla di levanto	IT.
Kakmari-ki-binj	DUK.	Grana Orientis of Ruellius	LAT.
Indian Berry	ENG.	Tuba-bidji	MALEAL.
Coque de levant,	FR.	Mahi-zahra	PERS.
Fischkorner	GERM.	Kakamari	SANS.
Jermai	GUZ.	Kaka colli verei	TAM.
Kakmari-ki-binj ;	,,	Kakichempu vittulu	TEL.
Jermai	HIND.		

This is the fruit of the Anamirta paniculata of *Coleb.*, the Anamirta cocculus of *W. and* A., and the Cocculus suberosus of *D. C.* Menispermum cocculus of *Linnæus*, a powerful climbing plant, common in the mountainous parts of the Malabar coast, and in commerce the fruit is obtained through Bombay, Madras and Ceylon. The berry is highly poisonous, and is not used internally in medicine. Even externally, as an ointment, though useful in Porrigo capitis, its use requires great care. It is used to poison fish, and a weak decoction to destroy ticks in sheep. In 1850, 2359 bags were imported into Britain, value 19*s.* to 24*s.* the cwt. Cocculus Lacunosus. *D. C.*, C. Levanticus, *Eng.*, C. orbiculatus, *D. C.*, and C. suberosus. *W. and A.*, are syns. of Anamirta cocculus.—*Dr. O'Shaughnessy*, *p.* 196-198. *Royle. Roxb. Eng. Cyc. McCulloch. Comm. Dict. p.* 301. *W. and A.*

COCCULUS PALMATUS.

Colombo root	ENG.	Colombo ke jur	HIND.

COCCULUS VILLOSUS. *D. C., W. & A.*

C. sepium. *Coleb.*
Menispermum villosum. *Lam.*
,, hirsutum. *Linn. Roxb.*
,, myosotoides. *Linn.*

Huyer	BENG.	Dusara-tiga	TEL.
Dier	HIND.	,, chettu	,,
Farid-buti	,,	Chipuru tige	,,
Katle tige	TEL.		

This plant is used in native medicine. A decoction of the fresh roots is given in rheumatism, and is considered heating, laxative and sudorific ; a curry of the leaves is used for the same object. The juice of the ripe berries makes a good, durable, bluish, purple ink. The withies are woven into small baskets, and are used for cords by the cultivators.—*Voigt.* 331.

COCCUS, a genus of insects belonging to the order Hemiptera ; the species of Coccus known in India are the C. cacti, the cochineal insect, the C. lacca, that yields the stick lac of commerce, and the C. maniparus of Arabia, that punctures the Tamarix gallica, and causes the exudation of the Arabian manna. There are two varieties of Coccus cacti, the true grana fina, and the grana sylvestris, and after prolonged efforts on the part of Drs. James Anderson and Barry of Madras, in 1795, the C. sylvestris, or wild species of the cochineal insect, was introduced into Bengal by Captain Neilson of H. M. 74th Regiment. It throve rapidly on the Cactus indica, the indigenous opuntia, the country Nopal, and between 1800 and 1807, 74,366⅛ lbs. of the cochineal, amounting to Rupees 142,916 in value, was shipped to England, but at a loss, as the wild species was found greatly inferior to the true. The cochineal insect was introduced into Java about the year 1825, as a Government experiment, and apparently with more success in its production than in British India, for as long ago as 1844 it was exported from Batavia to the estimated value of 93,319 guilders. The species introduced into India swarms at certain seasons, and settles on one of the species of Cactus, which they immediately destroy. The whole neighbourhood of Homanabad was surrounded with prickly pear but disappeared in 1865, under one of these swarms.—*Royle, Prod. Re., page* 57. *Crawfurd Dict. page* 112.

COCCUS ILICIS. See Kermes.

COCCUS LACCA produces the substance called lac ; it inhabits India, is found on various trees in great abundance on the Ficus religiosa and F. Indica, Butea frondosa, and Rhamus jujuba. "When the females of this Coccus have fixed themselves to a part of the branch of the trees on which they feed, a pellucid and glutinous substance begins to exude from the margins of the body, and in the end this substance covers the whole insect with a cell, which, when hardened by exposure to the air, becomes lac. So numerous are these insects, and so closely crowded together, that they often entirely cover a branch ; and the groups take different shapes, as squares, hexagons, &c., according to the space left round the insect which first began to form its cell. Under these cells the females deposit their eggs, which, after a certain period, are hatched, and the young ones eat their way out." It is found encircling twigs and branches. The broken twigs covered with these incrustations are called 'stick lac' in commerce. After the colour has been extracted and further purified, shell lac results.—*Kirby and Spence, Vol. IV, p.* 142, quoted in *Eng. Cyc. Vol. II, p.* 144.

COCCUS PELA. See Fraxinus.

COCCUS POLONICUS is a species which is used in dyeing a red colour. It is now chiefly employed by the Turks for dyeing wool, silk, and hair, and for staining the nails of women's fingers.—(*Kirby and Spence Vol. I, p.* 320). *Eng. Cyc., p.* 44.

COCKIN. See Cocoa-nut palm.

COCHENILHA. PORT. Cochineal.

COCHENILLE. FR. Cochineal.

COCHIN. A town on the Malabar Coast, in lat. 9° 58′ N. long. 76° 15½′ E. The bar has on it 14 or 15 feet, and is navigable by vessels of 600 and 700 tons (*Horsburgh*). Cochin harbour appears to be the best on that coast. Captain Ouchterlony is of opinion that, with a few simple works, the water over the bar could be deepened. (*Universal Review.*) Cochin town is the capital of a principality ruled by a rajah. The primary source of income was Rupees 6,00,721 in 1044. This increase was chiefly due to the increased area of land under cultivation, the greater yield of the Nelliampathy coffee estates, and the extended operations in the Trichoor lake. The revenue derived from customs duties during the year 1044 was Rs. 1,15,099, being in excess of that of the previous year by Rupees 9,137. The abkarry farm produced Rs. 29,009, the opium farm Rs. 8,450, and salt Rs, 1,42,663. Various schools are making steady progress. At a principal school at Ernacollum there are 256 students, the majority being brahmins, sudras, and Roman catholics, who form the larger sections the population. During the year 1044, a fund had been raised, wholly by the students and teachers, to assist poor and deserving scholars in their education, and through its instrumentality 20 of the poorer scholars receive aid to help them to bear the incidental expenses of their schooling. Report speaks highly of the capabilities of the port of Narrakal, at which place the mails have been landed at the worst periods of the monsoon, without the slightest interruption. In the year 1044, 25 vessels, with an aggregate tonnage of 15,484 tons, arrived at Narrakal, against 14 vessels and 8,315 tons in the preceding year. The port dues amounted to Rs. 854.

The ruling family are of the first class of the chiefs of India, and are liberal-minded. The territory is 1,131 square miles with a population of 399,060, the taxation falls at Rs. 2¾ per head. The rajah's family follow the rule of mari makatayum or Descensus ab utero, the children of sisters succeeding. If the rajah's younger brother be senior to all his nephews, he becomes Elliah rajah, or heir apparent. But if the rajah's eldest sister have a son older than the rajah's brother, the nephew ranks in the line of succession before the uncle. Cochin was a Dutch town, but was captured by the British in 1798. It has considerable trade with the Persian Gulf and the Arabian Coast, and ship-building is largely carried on.

COCHIN-CHINA, the name given in Europe to a kingdom occupied by a people known as the Anam. The derivation of the European name is obscure, but Kachao is the name given by the Anam people to the capital of Tonquin; and Cochin China is known to the Malay navigators as Kutchi, but they give the same name to Cochin on the Malabar coast, Cochin China has probably been so called from the alliteration so common with easterns, aided by the proximity of China, and may be derived from Kachao the capital of Tonquin and China, so that Cochin-China may mean the Kuchi near China. It has been supposed by D'Anville that the Sin-hoa of Ptolemy, the geographer, is Cochin China, and that the Aurea Chersonesus of Ptolemy is the Malay peninsula. According to Latham the natives on the borders of British India, in the N. W., the N. E., S. E. and East, form an ethnological group, which contains the Tibetans, the Nepal tribes, several populations of the Sub-Himalayan range, the Burmese, the Siamese, the natives of Pegu, the Cambogians, the Cochin Chinese, and the Chinese, in populations which cover perhaps one-fifth of Asia. They have a general similarity, they are somewhat fair in complexion, with what are called Mongolian features. There are, in their religious sects, mahomedans and shamans, but the buddhist, Confucian, and Lao philosophies are used as religions, and almost all believe in the transmigration of souls towards a final absorption. One of these is the Anamese, or Anamitic group of peoples inhabiting Cochin-China and Tonkin, and are a section of the division to which the Chinese belong. The Chinese form of Anam is Ngan-nam. The language is monosyllabic. The Tonkinese call the Cochin Chinese Kuang and Kekuang, names probably the same as Khyen and Kakhyen. The Cochin-Chinese, on the other hand, call the Tonkinese Kepak.

The Cochin Chinese have a little more beard, and are fairer than their neighbours immediately to the west and south of them.

The Anam race, (comprehending under this name both the Cochin Chinese and Tonquinese,) for there is very little difference between them, are fair, but are a short, squat, and ill-favoured people, with long arms and short legs. They are probably lower in stature than any people of Central Asia. Their limbs are strong and well formed, and they are active and hardy. In point of features, they bear a nearer resemblance to the Malay than to any other people; their countenances exhibit an air of cheerfulness and good humour. The women are, to a remarkable degree, fairer and handsomer than the men, their hands, arms and feet are well formed, and the carriage even of the lower orders is graceful. The women, still fairer, are well formed and graceful. The dress of both sexes is becoming; it is the old costume of

China, before the Chinese were compelled to adopt that of the Tartar conquerors. Both sexes dress nearly alike. For the lower part of the body, the covering consists of a pair of loose trowsers, secured at the waist by a sash. The main portion of dress consists of two or more loose frocks, reaching half-way down the thigh. This, for such matters, as among other Eastern people is uniform and constant, overlaps to the right side, and is secured by five buttons and as many loops. Its sleeves are loose, and with persons not compelled to labour, they dangle a foot, or even a foot and a half, beyond the extremities of the fingers; but the labouring classes from necessity, wear them short. With the women, the inner frock reaches below the knee, and the outer down to the ankles. When a Cochin Chinese is in full dress, as when he makes visits or is engaged in the performance of religious rites, he always wears over the frocks now mentioned a loose silk gown reaching to the ankles. The hair of the head is worn long and put up in a knot at the back of the head, as was practised by the Chinese before the present fashion was imposed upon them by the Tartars. Both sexes wear turbans, which are put on with much neatness and the form of this article of dress, which is always determinate, distinguishes the civil from the military order of public officers.

The pooier people, except when dressed, seldom wear these turbans. When abroad, both sexes wear varnished straw hats, little less than two feet in diameter, tied under the chin. These, which are sometimes in the form of an inverted basin, and at others resembling a sugar-loaf, afford, however grotesque in appearance, good protection against sun and rain. The materials of dress consist of silk or cotton, the first being of more frequent use than in any other country. The inner frock is cotton of domestic manufacture, ways, in Crawfurd's time, unbleached, for, then, there was not a rag of white linen in the kingdom. The outer frocks and gown with the better ranks, are always of silk, or flowered gauze; and the latter is commonly of Chinese manufacture. The trowsers, with the same class, are either plain silk, or crape of domestic fabric. The turban is crape, always black or blue, but most frequently the former; and this is also a home fabric. The lower orders are generally clad in cotton; but, even among them, silk is not unfrequently to be seen. Their cotton dress is very generally dyed of a dark brown colour, as if trimmed. This colour is given to it by a tuberous root. Ornaments of the precious metals, or gems do not appear to be very general. The women wear occasionally armlets and bracelets of gold. Where gems are worn, those of most frequent use are pearls, and amber brought from Yu-nan. The women wear ear-rings and secure the hair by a bodkin with an ornamented gold bead. Men of all ranks, and women above the labouring class, always carry about them a pair of silken bags, or purses, strung together, and usually carried in the hand, or thrown over the shoulders. These are intended to carry betel, tobacco, and money. Women of the labouring class are forbidden to use them; and men of the same order, when they meet a person of condition, must as a mark of respect, take them off their shoulders and conceal them. These purses are generally of blue satin, and with the better classes often richly emboidered. The shoes that are wown by the Cochin Chinese are slippers without heels. P. 485 to 487.

The Cochin Chinese are addicted, to an extraordinary degree, to the use of tobacco. which they chew and smoke. The Cochin Chinese are a mild and docile people. The lower orders are remarkable for their liveliness. They are always to be seen talking and laughing. The higher classes affect the grave and solemn demeanour of the Chinese. In their habits and persons, the Cochin Chinese are an uncleanly, dirty people; they perform frequent ablutions, but, notwithstanding this, their hair, their skins, their hands, including the long nails which they are so fond of wearing, are absolutely impure. Their linen, not bleached at first, seems never to be washed afterwards. At home, they wear their foul cotton shirts; and when they go abroad, without changing them, they clap over them their fine silk robes. This neglect of personal cleanliness they perhaps carry to a greater length than any of the nations of the further East. Their diet is indiscriminate. They eat vermin, and the flesh of the crocodile; hatched eggs with them are a delicacy, and their favourite sauce is a kind of soy, in part, at least, composed of the juices of putrid fish, and which, both from taste and odour, would be intolerable to any other people. Like the Siamese, they are nationally very vain, and consider themselves the first people in the world, being hardly disposed to yield the palm even to the Chinese, the only strangers whom they are disposed to consider respectable. They consider the Kambojans barbarians, and scarcely think the Siamese much better. But their nationality, excessive as it is, is much less offensive than that of the Siamese; for with strangers they are sociable, good-humoured, and obliging. Young women are not restrained to chastity, but are allowed freely to associate with men. But adultery in the married woman is punished with death. A Cochin-Chinese marries when he has the means, and among the poorer classes the age of the female is from 15 to 20. The wife is purchased, polygamy is habitual. Abortion is often had recourse to. In Cochin China divorce is completed by breaking a copper coin or a pair of chopsticks before witnesses. Cochin Chinese are ever gay and always talking, open and familiar, and entrust women with the chief concerns of the family, and they are quite as gay as the men. The Chinese always grave and affect to be thinking, close and reserved, never commit any affair of importance to a woman. The Chinese code forbids a woman to talk unless by way of reply, or to laugh beyond a smile, or to sing unless desired. In Cochin China all the labours of tillage devolve on the peasant women, and in towns the women, in addition to their domestic duties, superintend all the details of commerce and even help in manufactures. The religion is buddhism, but shaman superstitions also prevail. —*Latham's Descriptive Ethnology. Crawfurd's Dictionary, pp.* 321 *to* 488. See Buddha. China, India, p. 309, 316, 319, 343 and 344. Kambogia. Kho.

COCHINEAL.

Conchinilje	DUT.	Cochenilha	PORT.
Cochenille	FR.	Konssenel	RUS.
Koschenilje	GER.	Cochinilla Grana	SP.
Kermij	GUZ. HIND. PERS.	Cochinil puchi	TAM.
Cocciniglia	IT.	,, purugu	TEL.

This valuable dye and colour material consists of the dried bodies of the female of the Coccus cacti, a native of Mexico, and an idea of the value of it may be given by mentioning that Great Britain pays annually about £440,000 for this insect. In 1850, 1122 tons were imported into Britain, price 3*s.* 6*d.* the pound. It forms a very fine and permanent dye of red, crimson, scarlet. It answers on wool and silk, but not on cotton. It is a most expensive colour, and is rarely in the hands of the native dyer, but if supplied to him, he understands the method of using it. Efforts were made by the E. I. Company to introduce the insect into India, and at the close of the 18th century it was supposed that Drs. Anderson and Barry of Madras had succeeded in doing so, but it is said that an inferior variety, C. Cacti sylvestre, occurs in S. America, which was the one brought, not the variety designated C. Cacti grana fina. Whether from the stock introduced in 1799, or from an indigenous variety, the Coccus cacti is at seasons plentiful in many parts of India. They swarm to localities where the prickly pear grows, and in a brief time, the plant wholly disappears. At Homnabad recently, a great field of it withered up under them. What was exported from this importation proved to be small and deficient in colouring matter, and very inferior to any brought from new Spain. At the Madras Exhibition of 1857, the Cochineal exhibited from Chittledroog was from "Coccus cacti," and was said to be the "silver grain." It has been mentioned that at Vizagapatam is a great deal of the red flowering prickly pear, on which the cochineal insect feeds, that the insect under propagation at Oossoor has been ascertained to be the true cochineal insect, and to be procurable in several districts in Southern India, but that it only destroys the plants with red flowers and few prickles, and that it will not propagate on the yellow flowering prickly pear, or opuntia. I have seen it tried at Bellary and fail. The red flowering Opuntia is abundant at several localities in the peninsula of India. The Cochineal insect was introduced into Java a few years ago, as a Government experiment, and appearently with more success in its production than in British India, for so long ago as 1844 it was exported from Batavia to the estimated value of 93,319 guilders, and it has been exhibited from Java at the recent Exhibitions in Europe as having been grown in considerable quantities on the Government plantations. The people have also been successful in introducing it into the Canary islands, where it has of late been much cultivated, and in 1856, no less than 1,511,617lbs. were exported. Cochineal is both wild and cultivated. The insects, of which there are about 70,000 to the lb., are detached from the plants on which they feed by a blunt knife; they are dipped in boiling water to kill them and then dried in the sun." There seems to have been a species of Cochineal in the Jalundhar Doab, there was in the Sikh times, a species of cactus so abundant and rapid growing, as to become a nuisance, and rewards were offered for its extermination, which however were, shortly after, rendered unnecessary, as a large number of insects of some kind of coccus appeared and soon effected the destruction of the plant which is now only occasionally to be met with. From the travels of Lieut. Burnes and Dr. Gerard, we learn, (*Journ. As. Soc. of Bengal, Vol.* ii. *p.* 652) that a species of cochineal is found on the root of a plant which flourishes in a marsh (near Herat), but the natives being unable to dry it, import it from Bokhara and Yarkand, paying about 32 sicca rupees per Indian seer. Coccus polonicus, the scarlet grain of Poland, is also found on the roots of a plant, the Scleranthus perennis.—*Royle Ill. Him. Bot. p.* 85. *Madras Exhibition of* 1857. *Powell Handbook Ec. Pro-*

Punj. p. 194.—*Crawfurd's Des. Dic. of the Indian Islands, p.* 112.—*McCulloch Commercial Dict. Stat. of Commerce.*

COCHINEAL PUCHI. ANGLO. TAM Cochineal.

COCHINILLA GRANA. SP. Cochineal.

COCKLE of Job xxxi, 40, a species of Solanum.

COCHLEARIA ARMORACIA. LINN.

Radish	ENG.	Cran de Bretague,	FR.
Horse Radish	„	Muli	HIND.

COCHLOSPERMUM GOSSYPIUM. *D. C. W. & A.*

Bombax gossypium. *Linn. Roxb,*

Golden Silk Cotton Tree	ENG.	Tschema-pungee mara	MAL.
Yellow-flowered cotton tree	„	Ela-Imbul	SINGH.
Chima-punji.	MALEAL.	Tanaku maram.	TAM.
		Konda gogu chettu.	TEL.

This tree grows in Travancore and on the Coromandel coast, Dr. Roxburgh describes it as common on the Arracan mountains, it occurs also in Bundlecund, on the hills round and near Adjigurgh and Kalingur, as well as on those near Hurdwar, and the Kheree pass. It is a large tree with downy shoots. Of the leaves are made, the curious rude leaf-bellows with which the natives of the hills near the Assam valley smelt iron. Botanists usually place it amongst the Theads (*Ternstromiaceæ.*)

These trees have curious thick branches which spread out somewhat awkwardly, each tipped with a cluster of golden yellow flowers, as large as the palm of the hand, and very beautiful: it is a tropical Gum-Cistus in the appearance and texture of the petals and their frail nature. The bark abounds in transparent gum, of which the white-ants seem fond, for they kill many trees. This is the gum katira, which in the N. W. Provinces of India is substituted for Tragacanth; wood soft, and only used as firewood; the cotton of its pods is used for stuffing pillows. This tree is not seen west of the Jumna, but it probably exists in the Sewalik region in the east of the Punjab, its gum is officinal being used as a demulcent in coughs. &c.—*O'Shaughnessy, page* 225. *Dr. J. L. Stewart. Hooker Him. Jour. Vol.* I, *page* 53. *Voigt.* 91.

COCHLOSPERMUM SERRATIFOLIUM. A tree resembling the C. gossypium, but with the lobes of the leaves serrated.

COCHOA PURPUREA. The sole bird in India of the family Ampelidæ, it is found in Nepaul. See Birds p. 501.

COCK, the male of the domestic fowl of the genus Gallus. One species of the genus Gallus is found in the wild state in the Malay Peninsula, two in Sumatra, two in Java, and one in the Philippine Islands. It is remarkable, however, that no bird of the genus in the wild state is to be found in Borneo, Celebes, or any island of the Molucca Seas. Several of these supposed species are probably the same. The two of Java are distinct species; they will pair, but the progeny is a male, a beautiful bird kept by the wealthy Javanese as an ornament of their poultry-yards, under the name, well known to them, of Pakiser. The wild fowl of the Philippines is sometimes tamed, and, by the courage it displays, shows that it is of the true game breed, and probably identical with the domesticated bird. The authors of the Spanish Geographical Dictionary in their introduction say of it:—"In the woods there are beautiful wild cocks. These are very brave in the combat and always come off victors with the large but cowardly cocks of China, and not with these alone, for they will contend with the famous gallant breed of the Loguno." Most of the advanced nations of the Asiatic Islands are gamblers, and the favourite shape which gaming takes with them is cock-fighting. This includes the people of Bali, Lomboc, Celebes and all the Philippine islands, the only material exception being the Javanese. The passion for cock-fighting is impressed on the very language of the Malays Thus there is a specific name for cock-fighting, one for the natural spur of the cock, and another for the artificial; two names for the comb, three for the crow of the cock, two for a cock-pit, and one for a professional cock-fighter. The passion is no where carried further than in the Spanish dominions in the Philippines. There, it is licensed by the government, which derives from it a yearly revenue of about 40,000 dollars, or about £10,000.

The nations of Central Asia seem from time immemorial to have used the cock in sacrifice. It has ever been a sacrificial victim, being especially sacred to the sun, in Sabæan worship. And this still continues. It is offered in sacrifices on the new year's day by the old Parsi fire worshippers. The Aryan hindoo and the non-Aryan races all sacrifice the cock at the shrines of the earth goddesses See Birds, Fowls, Gallus.—*Crawfurd. Dic. p.* 113.

COCKLE. See Chamidæ.

COCKS-COMBS. Flowering plants little better than weeds in Madras: unless planted in well manured soil and watered with good water, they are not worth pot cultivation.—*Jaffrey.*

COCKSPUR PEPPER. See Capsicum.

COCOACEÆ, the palm tribe, the Palmaceæ of Lindley, are inhabitants of the tropics of both worlds, and hardly range beyond L. 35° S., and L. 40° N. They are local plants;

only Cocos nucifera, Acrocomia sclerocarpa, and Borassus flabelliformis are found in many lands. There are supposed to be about 1,000 species, but scarcely a fifth part have been described. The "Oreodoxa oleracea," or edible Cabbage tree of the W. Indies has been introduced into the East. The "Areca catechu," is well known for its betel nut; the "Arenga saccharifera" for its sago, palmwine, sugar, and black horse-hair-like fibres. One tree will yield lbs. 150 of sago-meal. The "Caryota urens" valuable for the immense quantity of its sap, which is fermented into toddy or palm wine, or distilled into arrack. Canes and rattans are from the various species of "Calamus." The "Sagus lœvis" and S. farinifera yield much of the sago of commerce. The "Borassus" or palmyra is of great value for its palm wine, its fruit and its leaves; as also is the fan palm "Corypha umbraculifera," the talipat palm of Ceylon and the Moluccas, while "C. taliera" is of great value for its leaves, which are formed into the palm books on which the people write with a steel bodkin. The date fruit, on which so many of the Arabs subsist, is from the "Phœnix dactilifera," and the "P. sylvestris" of India furnishes sap largely, which is made into palm wine, sugar or arrack, and the widely spread cocoanut tree, "Cocos nucifera," with its multitude of uses, all belong to this order. More recently, the following have been noticed.

Plectocomia elongata, *Mart.* of Java
Ceratolobus glaucescens, *Bl.* ,,
Dæmonorops melanochætes, *Bl* ,,
Lodoicea seychellarum, *Labill* Seychelles
Hyphæne coriacca, *Gærtn.* of Egypt.

The better known of this order are as under :

A. *Arececæ or Aricineæ.*

Chamædorea gracilis. *Willde.*
Hypophorbe indica. *Gært.*
Oreodoxa oleracea. *Endl.*
,, regia. *Homb.*
Areca catechu. *Spreng.*
,, crinita *Bory.*
,, Dicksonii. *Roxb.*
,, triandra. *Roxb.*
,, gracilis. *Roxb.*
Seaforthia elegans. *R. Br.*
Harina caryotoides. *Buch.*
Arenga saccharifera. *Labill.*
Caryota urens. *Linn.*
,, horrida. *Jacq.*
,, sobolifera. *Wal.*

B. *Lepidocaryeæ.*

Calamus humilis. *Roxb.*
,, erectus. *Roxb.*
,, draco. *Willde.*
,, latifolius. *Roxb.*
,, rudentum. *Lour.*
,, verus. *Lour.*
,, extensus. *Roxb.*
,, quinquenervius. *Roxb.*
,, rotang. *Linn.*
,, fasciculatus. *Roxb.*
,, polygamus. *Roxb.*
,, tenuis. *Roxb.*
Calamus gracilis. *Roxb.*
,, monoicus. *Roxb.*
,, hostilis. *Wall.*
Zalacca edulis. *Reinw.*
,, asamica, *Wall.*
Sagus lœvis. *Rumph.*
,, farinifera. *Gærten.*

C. *Borasseæ or Borassineæ.*

Borassus flabelliformis. *Linn.*
Latania borbonica. *Lam.*
Bentinckia condapana. *Berry.*

D. *Corypheæ or Coryphinæ.*

Corypha umbraculifera. *Linn.*
,, utan. *Lam.*
,, taliera. *Roxb.*
,, elata. *Roxb.*
,, rotundifolia, *Lam.* of Moluccas.
Livistonia Mauritiana. *Wall.*
Licuala peltata. *Roxb.*
,, pumila, *Bl.* Java.
,, spinosa. *Wurmb.*
,, rotundifolia, *Bl.* Java.
Sabal adansonii. *Guerns.*
,, hystrix. *Nutt.*
Chamærops humilis. *Linn.*
,, mitis. *Mayer.*
,, Griffithiana. *Wall.*
,, Martiana. *Wall.*
Rhapis flabelliformis. *Ait.*
Phœnix acaulis. *Buch.*
,, dactylifera. *Linn.*
,, farinifera. *Roxb.*
,, sylvestris. *Roxb.*
,, paludosa. *Roxb.*

E. *Cocoeæ or Cocoinæ.*

Elæis guineensis. *Jacq.*
Cocos nucifera. *Linn.*
,, flexuosa. *Mart.*

COCOA.

Cacao	Fr.	Cocao	It. Port. Sp.
Kakao	Ger.		

Cocoa, also witten Cacoa, is the nut or seed of the Theobroma cacoa, a plant of the West Indies and the continent of America. Lindley, however, mentions also T. bicolor and T. guineensis. T. Cacao has been introduced into India, into the Philippines, and into the northern peninsula of Celebes and Amboyna.

At the Madras Exhibition of 1855, the Cocoa seeds were sent by General Cullen from his gardens near Oodagherry, 1,800 feet above the sea, they were of good quality, the beans being plump, ripe and clean, but small, not well cured and without colour. It is of great consequence to get good Cocoa grown in India. The climate and soil of the western coast would appear peculiarly favourable. The Cocoa flourishes best in the alluvial soil of mountain valleys, though it will grow well at some elevation on mountain sides. Great care should be taken in the selection of plants, as the varieties are numerous, some producing very superior fruit to the others. As to the distance at which the plants should be placed, some authorities consider that from 12 to 16 feet apart is sufficient, others maintain that 30 feet is not too much. A free ventilation of air should be insured to the tree, after it is come to its full growth, and this cannot well be attained with a smaller space than 30 feet. The cocoa plant requires large forest trees of favourable sorts to be scattered amongst them, to protect them—the tree used for this purpose in the West Indies and South America is one of the Bombaceæ. The average return of cocoa per tree, when the trees are planted close together, is from 1 to 3 lbs. There are two crops in a year, but as much as from 9 to 16 lbs. may be procured by proper planting and cultivation. On the low islands of the Tocantus river, 10,000 trees produce annually only lbs. 3,200 of the chocolate nut; but well cared for trees produce on the average lbs. 32 each. The average yield of plantations on the Amazon near Santarem is 700 Aroba (lbs. 22,400) to 10,000 trees.

The plants begin to bear at from 5 to 7 years of age: during this period the interspaces between the rows of trees can be rendered productive by planting yams and vegetables in them. Great care is required in curing the cocoa, after it is separated from the pod, and on the method of fermenting and drying depends very much the production of a good or bad article. Cocoa contains the alkali theobromine, in which there is a larger amount of nitrogen than is in theine, so that tea, coffee and cocoa may all be regarded as containing the same nutritious principle. As seen in the market, cocoa is in the form of flake, granulated, soluble, rock, dietetic, homæopathic, cocoa, broma, &c. Cocoa is adulterated with 5 to 50 per cent. of sugar and starch. Flake cocoa generally contains the worthless husk which forms about twelve per cent. of the seeds. Genuine flaked cocoa of good quality cannot be purchased under ten pence or one shilling per pound, but it is no uncommon circumstance to see in London shop-windows samples ticketed fivepence and sixpence per pound; such samples at this price must either be damaged or adulterated.—*M. E. J. R. Simmonds.* See. Cacao; Chocolate: Theobroma Cacao.

COCOANUT. The word cocoa is supposed to come from the Portuguese word Macaco or Macoco. This is the fruit of the cocoanut tree, the Cocos nucifera. The cocoanut is encased in a thick fibrous husk. The substance of the shell is very brittle, and its structure is somewhat fibrous, but it admits of being turned in an agreeable manner. Shells which are tolerably circular are used for the bodies of cups and vases, the feet and covers being made of wood or ivory. Common buttons are also made of the cocoanut shell, and are considered better than those of horn, as they do not, like that material, absorb moisture which causes them to swell and twist' The hollow shells, called "gari" or "naryel," are used for the water holder of a particular kind of "hooka." Cocoanuts, both in the raw and dried state, form a prominent feature amongst the exports to various parts of India and to other countries. The shipments take place chiefly at Galle and Colombo, and amount in value to about £14,000 yearly. Cocoanuts valued at £50 a ton were imported into Great Britain in 1861 to a considerable extent. They are sold in Liverpool at 20 to 30s. the 100. The kernel, known as Kopra, is daily used in almost every house in India, as part of the curry materials, and from it is expressed the cocoanut oil of commerce.

The fruit bearing power of the cocoanut palm may be considerably improved by extracting toddy from the blossom shoots for the manufacture of jaggery during the first two years of its productiveness, after which it may be discontinued. The subsequent annual produce may be safely reckoned at fifty nuts per annum.

The cocoanut is a valuable product of the tree, as from ten to twelve large nuts, besides several small unproductive ones, may be seen on each bunch. In good situations, the fruit is gathered four or five times in the course of the year. The albuminous substance within, the "Kopra" or the kernel, is used as an article of food, and when dried is largely exported to other places as the "copra" of commerce; and the clear sweet liquid which the nut encloses when young is a very agreeable drink. It is indeed the albumen in a liquid state. In Ceylon, house plasterers attribute an adhesive quality to this water of the green nut, and mix it with their white and other washes, in which lime forms a chief ingredient.

The shells of the green nuts, fixed on stakes, are used as illumination lamps.

The full ripe nut contains a small quantity of oily milk and is then used for making oil. Cocoanut milk is extracted by pressure and is used in making curries, &c. It is from the husk of the cocoanut that the well known "Coir," khoir, khair or roya, fibre of commerce, is prepared, and used for the manufacture of coir rope, matting, brushes, &c. Cocoanut husk, from which the fibres have not been separated, is used in the East in lieu of a scrubbing brush for the floor, and for polishing wood; brooms, mats and bags are likewise manufactured from it.

The nuts are made into hookahs, goblets and cups, and when mounted with silver, polished and carved, are very handsome; but for everyday household use, they are made into lamps, ladles, skimmers, and spoons. The shells make good lamp-black, and when reduced to charcoal and pulverised, an excellent dentifrice. The cocoanuts are hourly used as offerings for hindoo idols. The cocoanut, when fully ripe, can be hollowed and cleaned, by being filled with salt-water and buried for some time in the sand, when the albumen decays, and is washed out. *Tredgold.*

COCOANUT TREE BEETLE. Butocera rubus.

COCOANUT CRAB, the Birgus latro or robber crab of the Keeling islands, is a kind of intermediate link between the short and long tailed crabs, and bears a great resemblance to the Paguri. It dwells in deep burrows. Mr. Darwin observed their habits in the Keeling islands, and found that they live on the cocoanuts that fall from the trees. The story of their climbing these palms and detaching the heavy nuts is merely fabulous. Its front pair of legs are terminated by very strong heavy pincers, the last pair by others narrow and weak. To extract the nourishment, it tears off the husk, fibre by fibre, from that end in which the three eyes are situated, and then hammers upon one of them with its heavy claws until an opening is effected. It then, by its posterior pincers, extracts the white albuminous substance. It inhabits deep burrows, where it accumulates surprising quantities of picked fibre of cocoanut husks, on which it rests as on a bed. Its habits are diurnal, but every night it is said to pay a visit to the sea, perhaps to moisten its branchiæ. It is very good to eat, and the great mass of fat accumulated under the tail of the larger ones, sometimes yields, when melted, as much as a quart of limped oil. They are esteemed great delicacies, and are fattened for the table. —*Darwin, Hartwig. Bikmore,* 149.

COCOANUT DAY occurs on the full moon of the hindu month, generally falling in August. Crowds assemble in their gala dresses, a brahmin advances into the sea and throws a gilded cocoanut into the water, on which the assembled multitude follow his example. At Porebander, in Guzerat, the brahmins bless the cocoanuts and stain them with a vermillion paste.—*Mrs. Ellwood.*

COCOANUT, DOUBLE. The double cocoanut of the Seychelles or Mahe islands, is the fruit of the Lodoicea Seychellarum. When preserved whole, and perforated in one or two places, the nut serves to carry water, and some of them hold six or eight pints; and by slicing them in different directions they are formed into plates, dishes, drinking cups, &c. known in the French islands as Vaisselle de l'isle Praslin. The half of a double cocoanut is a favourite scallop of the mahomedan fakir in India. The crown of the trunk is eaten like the American cabbage palm. The down attached to the young leaves serves for filling mattrasses and pillows; the ribs of the leaves and the petioles are fabricated into baskets and brooms and the young leaves are plaited to form hats. The Lodoicea attains a height of eighty or ninety feet. It might be largely introduced into India with advantage. Germinating nuts were sold in London in 1854 at £10 a piece.—*Seeman.*

COCOANUT MILK is made from the kernel. For this purpose the kernel is grated, a little warm water is poured over it, and the liquid is then poured through an open cloth. This milk is excellent with coffee, and is indispensable for curry.

COCOANUT OIL. Oil of Cocos nucifera·

Narel ka tel	HIND.	Kalambir	MALAY.
Minak Nur	MALAY.	Tengai yenne	TAM.
Minak; Kalapa	,,	Tenkaia nuna	TEL.

The native method of making this oil is very simple. The kernel having been removed from the shell and dried, is subjected to pressure in a mill, and the oil is expressed; but when prepared in small quantities, the kernel is boiled in water, for a short period; it is then pounded in a mortar, taken out and pressed. The *milk,* as it is called, which exudes, is then boiled over a slow fire, when the oil floats to the top, and being skimmed off is afterwards boiled by itself. Two quarts of oil may be procured from fourteen or fifteen cocoanuts. When fresh, the oil has an excellent flavour. It is used as an unguent on the bodies of the natives after bathing, and as an oil for the hair. It is employed as a lamp oil, and is manufactured into soap. It is said to have all the virtues of cod liver oil. The purest oil is obtained by grating the kernel, and depositing it in some hollow vessel, to expose it to the heat of the sun during the day, and the oil drains away through hollow spaces left for the purpose. The Malabar method of making the oil, is by dividing the kernels into two equal parts, which are ranged on shelves made of laths of the betel-nut palm, or split bamboo, spaces of half an inch wide being left between each lath. Under these, a charcoal fire is lit and kept up for two or three days, in order to dry them, after which they are exposed to the sun on mats, and when thoroughly dried are subjected to pressure in an oil press. The remains of the cocoanut, from which the oil has been extracted, (Posknakkull, *Hind.* Tenga Poonak, *Tam.* Tenga Pindee *Tel.* Poonnak, *Sing.*) affords an excellent material for feeding pigs, poultry, &c., and the best is obtained when the oil is extracted by pressure. The average annual quantity of this oil exported from Madras from 1847-48 to 1852-53 is about galls. 900,000 per annum. Of this by far the largest portion is sent to Great Britain and France; the remainder finds its way to Arabia, Mauritius, Bombay and the Indian French Ports. The prices of this oil vary considerably in different parts of Southern India. In 1854 the max. and min. were Rs. 8 5-4 at Jubbulpore, and Rs. 1-12-9 at Mhow per maund. The average of twenty-one large stations in the Madras Presidency giving Rs. 4 9-5 per maund, or about £41-2 per ton. The market-value of "Cochin oil" in London (in 1855) was £46-10—the average being £46 to 48. The best oil is that exported from Cochin, and the neighbouring ports on the Malabar coast. It usually fetches 20s. per ton more than the Ceylon or Coromandel coast article. In Europe it is used for the candle and soap manufacture, for lubricating machinery, &c. In India, for making soap, anointing the person, for cookery, lamps, and in medicine.

About the middle of this century, and in late years in Ceylon, European capital and skill were brought to bear upon this produce but with no advantage to the speculators. The ordinary yield of a good tree in full bearing is 50 cocoanuts yearly; many trees on European lands produced from 150 to 200 per annum. For the European market the tree is only available as producing coir, fibre, and rope from the outer husk of the fruit, and cocoanut oil from the kernel when dried in the sun. The total shipments of all sorts have lately been about 30,000 to 40,000 cwts. to Europe, and 20,000 cwts. to the continent of India and colonies. The manufacture of cocoanut oil for shipment to Europe has only been carried on since the year 1830, although long previously made by the natives for their own use. The bullock mill employed by them to crush the nut and express the oil is of the rudest make, and has remained unimproved for the last 500 years: a good description of it may be seen in Davy's Account of Ceylon. The first steam oilmills and hydraulic presses were erected by the Government in 1829, and when found to work well, and the article had become known and valued in Great Britain, the establishment was sold to private parties. This oil has ever since assumed an important place amongst the exports of Ceylon. In 1849, the quantity shipped to England was 512,457 gallons, in 1850, 791,791 gallons, and in 1851, 322,500 gallons. The imports of cocoanut oil into England was in 1853, 164,196, cwt., most of which was the produce of India, and in the year 1850-51, 649,152 gallons of the oil were exported from Malabar alone, principally to the Mauritius, Britain, and Bombay. It is this oil which forms the foundation of Price's patent candles. Cocoanut oil becomes solid at about 70° Fahrenheit; it is one of the fixed or fatty oils, and consists of solid and fluid constituents: the latter or oleine, being separated by pressure from the solid parts, called stearine, or by others Cocein, so largely used in the manufacture of the stearic candles by Mr. Wilson of Vauxhall. It is also much used by soap and pomatum manufacturers. In Borneo the only oil used by the women in the dressing of their hair is that freshly expressed from the cocoanut: and this is perfumed by allowing the flowers of various plants to remain in it. (*Low's Sarawak, p.* 145.) The native oilmill is one of the oldest machines in the world, exactly similar in shape to the mortar and pestle of the druggist, the form being worked by a shaft, to the end of which a pair of bullocks are attached. The cattle travel in a circle of about 18 feet diameter, and make three complete revolutions in a minute. Half a hundred weight of copra, as the dried kernel is called, is a charge for a full-sized checkoe, and a pair of stout well-fed bullocks will get through four such charges in a day; so that twenty mills are required to get through two tons in the twenty-four hours. The man who drives has usually a boy to assist him in taking the oil, which is got out of the mortar by dripping a piece of rag into the fluid and squeezing it into an earthen vessel. It is not the purest and brightest of liquids as may well be imagined. The cost of the native oilmill with serviceable bullocks, is rather under than over £20. The wages of a man and boy to each mill are fifteen pence, and a pair of bullocks fed luxuriously, entail a daily cost of one shilling more. There are no other expenses, and the total amounts to £755.—*M. E. Jur. Report. Cal. Rev. No.* 73. *Sept.* 1861, *p.* 153. *Low's Sarawak, p.* 145.

COCOANUT TODDY. The cocoanut trees of vigorous growth send forth nine, ten, and even twelve clusters of buds every year. But those on which little care has been bestowed, and which are consequently feeble, produce only four or five of these spathes. When a tree has thrown out a spathe (called in Tamil "palai"), from which it is intended to extract toddy, about a month is usually allowed to elapse for the flower buds inside the spathe to become sufficiently juicy to yield a fair return to the toddy-drawer. The spathe, at that time elliptical in form and pointed, will have attained a length of two feet, and a diameter of about two inches in the thickest part. The sheath of the spathe will be about an eighth of an inch thick, and very hard. At this stage the nut is a small, round-looking knob, of the same colour as the flowers, pale yellow, and of about the size of a marble. A few of the spathes are barren of nuts; some of them contain two or three, some five or six, and others as many as ten or twenty. When a month or five weeks have elapsed, and the spathe is considered in a fit state to commence operations upon, it is tightly bound round with strips of young leaves, to prevent the expansion of the sheath, and is cut transversely at the point, bruised, and otherwise carefully treated from day to day. To do this is the business of the " Sanar" or toddy-drawer. A " Sanar," when accoutred, has, first in importance among his appointments, the " Arivalpatty" (lit. knife box) made from the sheath of the spathe, and bound round tight with two binders of rattan. A strongly plaited rope is permanently fastened to one side of the "arivalpetty." The short arm of it has a much smaller loop; when fastened round the waist, the longer arm is passed inside the small loop of the short arm. Through the loop of the long arm the toddy-drawer passes the end of his waist cloth, and ties it into a knot. Next in importance is the " Erapetty," into which the toddy-drawer empties the toddy collected in the pot or " chatty" up the tree. It is made of palmyra fibre closely plaited, and when moistened, is water-tight. Two wooden collar shavings, about two inches broad, encircle the mouth of the eropetty, one inside and one outside; between them the plaited wicker-work is run up, and made fast. To keep the " eropetty" in its bulged bottle-like form, a piece of rattan about halfway down is woven in, and encircles the vessel-like loop of a barrel. The " eropetty" hangs suspended over the loop of a barrel. It takes nearly a year's practice to make a man master of the curious mode of climbing, after which the loftiest trees are ascended in a minute with surprising ease, and with perfect security. After a hard morning's work, the left arm always aches more than the other limb, showing that there is more strain on it than anywhere else. When an accident befals a toddy-drawer, it is usually occasioned by his left hand missing its hold on the tree and slipping aside, which brings him to the ground instantly, often with fracture or injury of that limb.

When the spathe is a month or a month and a half old, the toddy-drawer begins his labours by binding the sheath to prevent its expansion, after which he cuts about an inch off the end, then gently hammers the flowers which are thereby exposed. Finally, he binds up the end with a broad strip of fibre and descends. This process he continues morning and evening for fifteen days, a thin slice being cut away on each occasion. During this time, also, by shaving away a little of the under part of the sheath, he trains it to bend over. It is probable that the exact term of days during which the spathe undergoes this initiatory preparation varies in different places, and depends upon surrounding circumstances. Mr. Berthold Seeman, in his " Popular History of Palms," mentions five or six days as sufficient. Near Madras, a toddy-drawer gave us fifteen days as the usual time, but the time when a spathe is ready to yield toddy will be easily known by the chattering of birds, the crowding of insects, the dropping of the juice, and other unmistakeable signs. When ready, the end of the spathe is fixed into a " Kudave" or small pot, and a small slip of leaf is pricked into the flowers to catch the oozing liquor, and to convey the drops without wasting, clear into the vessel. When the spathe begins to yield toddy, he ceases to hammer it. It will give toddy for about a month, during which time, every morning and evening, he mounts the tree, empties the toddy into his "eropatty," binds the spathe an inch lower down, smears the end of it with his " palai mattai," and shaves a little away, then pricks in the slip of leaf, and ties the " kudave" on again. The man who ascends the tree is generally a paid servant, receiving about Rs. 7 a month. He will attend to thirty or forty trees. Forty trees yield about twelve measures (Madras) of juice, seven in the morning and five in the evening. During the heat of the day the spathe does not yield so freely as in the night. Twelve measures for forty trees is at the rate of a little more than one-fourth of a measure to each tree. A first-rate tree in a good soil, and carefully tended, will produce one measure during the night, and three-fourths or one-half of that quantity during the day. But taking one tree with another, a quarter of a measure is a fair average. Some trees, under favourable circumstances, continue yielding at this rate throughout the year, others only for six months. It is not prudent, however, to draw all you can from them, as they will be exhausted, and become barren. Every morning and evening, when the Sanar goes to draw the toddy, a servant or some one connected with the owner or contractor for the trees usually accompanies him with a chatty, into which is emptied the toddy from the " eropatty." When all the trees have been visited, and the toddy measured into the chatty or " cullu-pani," it is carried away to the bazaar rented by the contractor from Government at a fixed price. In Madras, there are 58 first-class toddy shops, to each of which 330 cocoa-nut trees are allotted, the contractor paying daily Rupees 2-12-10 to Government for each such shop. There are 63 second-class toddy shops, to each of which 247 cocoa-nut trees are allotted each shop yielding daily Rupees 2-2-10 to Government also 205 third-class shops. There is nothing very peculiar about the habit, custom, or dress of the "Sanars" to separate them from other hindu castes, apart from their occupation, which, being exclusively that of the sale and manufacture of toddy, may be said to distinguish them. Around Madras the Sanars are divided into two classes, the higher and the lower; the latter are called "Pully Sanar," and permit their widows to marry.—*Dr. Cleghorn, in No. 23 Edinburgh New Philosophical Journal, New Series, Vol. XIV. No.* ii, *October* 1861, *p.* 183.

COCOS, OR EDDOES. The root of Arum esculentum. The labouring population of the West Indies largely depend for a supply of food on this root. Long droughts may disappoint the hope of the yam crop, storms and blight may destroy the plantain walks, but neither dry or wet weather materially injure the coco; it will always make some return, and will yield a sufficiency until a supply can be had from other sources. The laborer in the West Indies always takes care to put in a good plant of cocos into his provision ground as a stand-by. Previous to their emancipation, whole families of negroes lived upon the produce of one provision ground, and the coco formed the main article of their support. Where the soil is congenial to the white and black Bourbon coco, the labour of one industrious person once a fortnight will raise a supply sufficient for the consumption of a family of six or seven persons. The coco begins to bear after the first year, and with common care and cultivation the same plant ought to give annually two or three returns for several years. Another species, the Taro (Arum colocasia, Colocasia esculenta and macrorhizon), is an important esculent root in the Polynesian islands. In the dry method of culture practised on the mountains of Hawii, the roots are protected by a covering of fern leaves. The cultivation of taro is hardly a process of multiplication, for the crown of the root is perpetually replanted. As the plant endures for a series of years, the tuberous roots serve at some of the rocky groups as a security against famine. It is also extensively cultivated in Madeira and Zanzibar, and has even withstood the climate of New Zealand. It is grown also in Egypt, Syria, and some of the adjacent countries for its esculent roots. A species is cultivated in the Deccan, for the sake of the leaves, which form a substitute for spinach. Farina is obtained from the root of *Arum Rumphii* in Polynesia. —*Simmonds, p.* 364.

COCOLE-DI-GINEPRO. IT. Juniper berries.

COCOON. ENG.

Indung sutra. MALAY.

The covering spun by the silk-worm and in which it wraps itself.

COCOS BUTYRACEA. See Elæis.

COCOS DE MER. FR. The Lodoicea Seychellarum palm, found exclusively on three of the smallest of the Seychelles,—Praslin, Curieuse, and Round island, lying south of the equator. It produces the huge double cocoanut, formerly supposed of such wonderful medical virtues that £150 was given for a single nut. It is also called "double cocoanut," also "Vaisselle de l'isle Praslin double." See Cocoanut, Double, Lodoicea. Sea-cocoanut.—*Chambers' Edin. Jl., July* 1852, 405.

COCOS INDICA. See Elæis.

COCOS. FR. SP. Cocoa-nut palm.

COCOS. There are three groups of islands known by this name, one called by Captain Ross, Keeling; one near the Great Andaman; and the third near Hog Island, off the west coast of Sumatra.

The *Cocos*, in lat. 3° 6′ N. and long. 95°30′ E., on the west coast of Sumatra, are two small islands covered with trees.

The Cocos or Keeling Islands, south of Java, lie in two distinct divisions north and south of each other. The channel between the two is 15 miles broad, the northern division consists of one island only, in lat. 11°49¼′ S., and long. 96‘ 51′ E., but the islets in the southern one are numerous. The Cocos Islands, a few miles distant from the north-east point of the great Andaman, are two little isles. The larger of them is six miles long and two broad, the smaller two miles and a half long, and nearly a mile broad. They are sheltered by the Andamans from the heavy south-west swell of the Bay of Bengal.—*Selections from the Records of the Government of India, Home Department, No. XXV, p.* 64. *Horsburgh.*

COCOS NUCIFERA. L. Cocoa-nut tree.

Palma indica major, *Rum.* | Calappas. *Rumph.*

Nardjil	ARAB.	Narikela	SANS.
Narikel	BENG.	Toombili	SINGH.
Kinghena	CAN.	Pol-nawasi	,,
Cocoanut tree	ENG.	Tenna-maram	TAM.
Narel-ka-jhar	HIND.	Kobbari-chettu	TEL.
Tenga	MALEAL.	Erra-bondala ,,	,,
Kalapa	MALAY.	Tenkaia-chettu	,,
Nur	,,	Gujju-narekedam	,,

The nut.

Jouz-i-hindi.	ARAB.PERS	Cocchi.	IT.
Narjil	,,	Nur	MALAY.
Narel	DUK.	Calapa	,,
Kokosnuten	DUT.	Kalambir	,,
Cocoanut	ENG.	Nargil	PERS.
Cocos.	FR. SP.	Kokos	RUS.
Kokosnusse	GER.	Narikela	SANS.
Narul	GUZ. HIND.	Tengai	TAM.
Naril	,,	Tenkaia	TEL.

The palm wine.

Nargilli	AR.	Tennam kallu.	TAM.
Narilli	DUK.	Tenkaia ,,	TEL.
Cocoanut toddy	ENG.		

Its cablage.

Naril ka krute	AR.	Tennam kurtu	TAM.
Cocoanut cabbage	ENG.	Tenkaia gurtu	TEL.

its sugar or jaggery.

Naril ka gur.	DUK.	Tennam vellam	TAM.
Jaggery of cocoanut toddy	ENG.	Tenkaia bellam	TEL.

Its oil.

Cobri	CAN.	Kalapa minak	MALAY.
Naril ka tel	DUK.	Narikaylum	SANS.
Cocoanut oil	ENG.	Tengai yennai	TAM.
Nur minak	MALAY	Tenkaia nuna	TEL.

Its water or albumen.

Yel nir ka pani	DUK.	Yella-nir	TAM.
Cocoanut water	ENG.	Yella-niru	TEL.

Its fibre.

Coir	HIND.	Tenkaia nar	TEL.
Tennam nar	TAM.		

The cocoanut palm does not seem to have been known to the ancients, though it is said to be indigenous in the East, from which they received ambassadors. The first allusion to it, however, in Ceylon, is in A. D. 1153 in the reign of king Prakrama I, and the cocoanut is said by the hindus to have been brought by Viswamitra from Ceylon to India. It now grows in great abundance in the Maldive and Laccadive islands, on the Malabar coast, in Ceylon, on the eastern side of the Bay of Bengal, though scarce in Aracan, whence it ascends both the Burrampooter and Ganges rivers to a considerable distance. It grows in the Nicobars, in most of the Eastern Archipelago. from the Sunda to the Molucca Islands, and in those of the Pacific Ocean, and is now cultivated in various tropical parts of the New World. It grows to the height of 1,000 feet above the sea, though flourishing in greatest luxuriance in the vicinity of the ocean. It rises sixty to a hundred feet high, its cylindrical trunk, crowned with numerous waving, feathery, leaves, forming an elegant object of intertropical scenery. It is self propagating. Its keel-shaped nut, protected from the salt water by its tough and thick though light covering, sails on the ocean to barren spots, where it germinates and causes even the smallest islets to become covered with clumps of the cocoanut palm. The cylindrical stems, with a diameter of about two feet, attain an elevation of from sixty to one hundred feet. They are surmounted by numerous wavy leaves, called fronds by botanists, and their foot-stalks are often called branches by travellers. The leaves are gigantic in size—being about 20 feet in length, with a strong tough stalk, which forms the midrib, and has a number of narrow and long leaflets ranged along the two sides.

It is a tree of great value to the people. The wood is applied to various purposes, such as rafters, fences, shears, laths, shingles, chairs, and ladies' work-boxes, &c., but during the period of its most abundant bearing (considered to be between ten and thirty-five years growth), the heart wood is of so soft and spongy a nature, that it is then merely used for fences, water pipes, &c. Its wood is also used for reepers, for which purpose it is, however, inferior to the palmyra, though, in Ceylon and on the western coast, hard and durable rafters are procurable: the Cochin planks are prettily striped and of remarkable size. The wood is strong and durable, a cubic foot weighs 70 lbs., and its timber is esteemed to last for 20 to 50 years. It is used for ridge poles, for temporary roofs, aqueducts, &c., for small boats, for the beams, posts and rafters of houses, for spear handiles, paling, and walking sticks : for fancy boxes, and furniture ; for boat's frames, bridges, ramparts, water butts, conduits, gutters and drums; it forms one of the porcupine woods of commerce, and is used for fancy articles : afarinaceous substance is contained in the stem, which forms a good substitute for sago. Each tree produces annually from 50 to 60 cocoanuts. These are enclosed in a thick fibrous husk, from which the coir of commerce is obtained by maceration and beating The husk is employed as a scrubbing brush and polishing brush ; it is converted into cordage of various kinds, employed for the rigging of ships, fishing nets, matting, and brushes ; and, in India, in its loose state, it is the usual material with which mattrasses, pillows and sofas are stuffed. Within the fibrous husk, is the shell, which is very brittle, though its structure is somewhat fibrous. Cut in various ways, it is formed into cups and drinking vessels, into pitchers, funnels, and lamps. It is susceptible of a high polish, and admits of being thrned in an agreeable manner. Those shells which are tolerably circular are used for the bodies of cups and vases, the feet and covers being made of wood and ivory. Common buttons are also made of the cocoanut shell, and are considered better than those of horn, as they do not, like that material, absorb the moisture, which causes horn buttons to swell and burst. The shell forms a valuable charcoal.

In its young and green state, the cocoanut contains a clear albuminous fluid, with a sweetish taste and a slight degree of astringency, which makes it a very agreeable refreshing beverage, and it is also used by house plasterers as an ingredient in their white washes made of pure lime. But, as the nut advances to its full maturity, the fluid disappears, and the hollow is filled by the almond-like dried albumen which is the germinating organ. This pulp or kernel, when young, can be easily removed by a spoon: when cut in pieces and dried in the sun, it is called copra, which forms an extensive article of commerce throughout the south and east of Asia. It is used grated in curries, or its milk is expressed from it; and, from copra, a valuable oil is expressed, which is employed in anointing the body, is used in lamps, is largely converted into the stearine candles of England, and forms an invaluable substitute for cod liver oil. The refuse oil cake "Poonac" forms an excellent manure. The white and solid albumen is often cut into ornaments of flowers and fruits, meant to represent the garlands given to visitors of distinction. They are worn by Tanjore ladies at particular festivals.

The very young or heart leaves of this palm are called the cabbage, and form an excellent vegetable either cooked or dressed in stews, hashes or ragouts. In the Laccadive islands, the heart leaves of the tree, just before they unfold, are cut out and plaited into mats of fine quality which are there used as sails for the smaller boats and are much esteemed when exported. In India, the leaves dried, and called by Europeans cadjans, are plaited and used as thatch, and for the outer and inner linings of walls of houses: the leaves are also made into mats, baskets, both fancy and plain, into fans, combs, brooms, screens, buckets and lanterns, into articles of dress, and into leaf books, torches and fuel. The foot stalks of the fronds are used for fences, yokes, shoulder poles, and fishing rods. The midribs of the leaves or fronds are fibrous but brittle and are used as brooms. The roots of the tree are chewed as a substitute for betel nut.

One of the beverages known to Europeans as palm-wine or toddy is obtained from the flower spathes. Before the flowers have expanded, the spathes—and these are themselves astringent and used medicinally—are tied with the young leaves and then cut transversely from the top downwards, and beaten daily with the handle of the knife or a piece of hard wood, and the sap, after a few days, exudes into a calabash or earthen pot. In the early morning, this is a pleasant, refreshing drink, but it ferments towards night and becomes an intoxicating fluid, which is largely drank and is used as a ferment. It is to a great exent artificially brought to the vinous and acetous fermentations, and, in the former state, an alcoholic spirit is distilled from it, which forms one of the arracks of commerce; one hundred gallons of toddy produce, it is said, by distillation, twenty-five gallons of arrack: eight gallons of sweet toddy boiled over a slow fire, yield two gallons of a luscious syrup, from which, by further boiling, a coarse brown sugar is produced, known in commerce as jaggery. The net-like substance Peynadi, Tamul, "Jalla Mitta," Hind., at the base of the petiole, when very young, is delicate, beautifully white, and transparent; but when it attains maturity, becomes coarse and tough, and changes to a brown colour. Portions of these are everywhere used as strainers and sieves, for straining fluids, sifting arrowroot, &c., and the Tahitian fisherman convert it into a garment when fishing.

The flowers contain a powerfully astringent property, used medicinally, and it is from the flower and spathes, before the flower has expanded, that the toddy or palm-wine of this tree is obtained. The Tahitians extract a gummy substance, called Pia-Pia, from the trunk of the tree. It may perhaps enable an estimate to be formed of the value of this palm by furnishing the following statement of the exports and imports from and into India of the products of the cocoanut palm, during the year 1850-51.

Exports from	Cocoanuts. Rs.	Shells Rs.	Kernels. Rs.	Oil. Rs.	Coir and Coir Rope. Rs.	Cadjans. Rs.
Calcutta.	....	....	... .	6,891	18,009	....
Madras.	10,140	....	431,008	144,952	246,855	....
Bombay.	....	—	.....	....	5,705	....
	10,140		431,008	144,952	270,566	
Imports into						
Calcutta.	149,646	5,970	176,398	231	56,542	....
Madras.	...	....	....	.....	....	. ..
Bombay.	375,243	....	689,722	76,417	175,392	2,990
	524,889	5,970	866,120	76,648	231,934	2,990

A western poet, writing of the cocoanut, has justly said—

> " * * * the Indian's nut, alone,—
> Is clothing, meat and trencher, drink and can—
> Boat, cable, sail and needle, all in one."

In Malabar and Ceylon every available spot within the influence of the sea breeze is being devoted to the growth of the cocoanut. Along the western coast of the Madras provinces, the wavy downs near the sea-borders, which have hitherto produced only a stunted and worthless crop of grass, are being everywhere levelled, broken up and manured, so as to form the beds of future plantations. Cocoanut trees have great enemies in the shape of two beetles. One of these is a large Curculio (Rhynchophorus Sach) called the red beetle, nearly as big as the Stag-beetle of Britain; the other is the Oryctes rhinoceros, so called from its projecting horn. The red beetle is so called from the red mark on the upper part of its breast. Its attacks are said to be on the nut, but those of the rhinoceros beetle are on the terminal bud of the palm stem. When so injured, the bud dies, and the crown of the leaves falling off, leave the cocoanut tree a mere bare stem. The same result occurs to other palms, the palmyra, the betel, in which the top bud, or cabbage as it is called, is destroyed.—*Collingwood. Simmond's Commercial Products. Royle's Fibrous Plants. Madras Exh. Jury Reports. Seeman on Palms. Ainslie's Materia Medica. Madras Lit. Soc. Journ. English Cyclopædia. Elliot's Flora Andhrica. Cal. Review. Malcolm's Travels in South Eastern Asia, VI. p.* 176.

COCOTIER DE MALDIVES. Fr. Sea-cocoanut of Seychelles. Lodoicea Seychellarum.

COCOYA, Malaya. Sleeping mats made from the leaf of the Pandanus odoratissimus, *Wall.* ii. 29.

COCUM OIL, or butter, is obtained from the seeds of a kind of mangosteen (Garcinia purpurea) and used in various parts of India to adulterate ghee or butter. It is said to be exported to England for the purpose of mixing with bear's grease in the manufacture of pomatum. It is a white, or pale greenish yellow, solid oil, brittle or rather friable, having a faint but not unpleasant smell, melting at about 95 degrees, and when cooled, after fusion, remaining liquid to 75 degrees—*Simmonds.*

COD. Eng.

Kabliau	Dan.	Bakalau	Ger.
Bakelau	„	Baccala	It.
Skrei torsk	„	Baccalare	„
Kabeljaauw	Dut.	Gadus	Lat.
Baukaelja	„	Bacalhao	Port.
Morue	Fr.	Bacalao	Sp.
Cabillaud	„	Bakelau	Sw.
Kabljau	Ger.	Kabeljo	„

In China, the consumption of salted provisions is very general, and also, in consequence of the immense quantities of both sea and river fish which are caught, and the rapidly putrescent nature of that species of provision, a considerable portion is cured with salt and dried in the sun, the haut gout which accompanies it being rather a recommendation to the taste of the Chinese. Indeed it is one of their most favorite, as well as generally used articles of food, and they even overcame their prejudice or indifference for whatever is foreign, on the occasion of salted cod being introduced for two or three years in English ships, the somewhat decayed condition in which it reached China being said to have been any thing but a drawback. This species of cargo, besides its disagreeable nature and the injurious effect which it might have on some delicate articles of shipment, was found during the voyage to breed a peculiar insect, which from the readiness with which it bored into the planks and timbers of a ship, was considered as dangerous, and accordingly the import was greatly discontinued.—*McCulloch's Commercial Dictionary, p.* 302. *Morrison, Compendious Summary.*

CODAGA PALA. Mal. Connessi bark, Wrightia antidysenterica.

CODDA-PANNA—? Corypha.

CODILLA or TOW. The short fibres of hemp or flax. Separated or picked out in cleaning. The quantity of flax and tow, or Codilla of hemp and flax imported into Great Britain increased from 13,686 tons in 1801 to 95,123 tons in 1853.—*Royle. Faulkner.*

CODIPASSAELI KEERAY. Tam. Basella alba.

CODLÆUM CHRYSOSTICTON. Syn. Croton variegatum, variegated croton. a shrub with handsome variegated leaves.—*Mason.*

COD LIVER OIL. This oil is prepared in Europe and America from the liver of the cod, and is largely employed medicinally in chest affections and in wasting. See Fish liver Oil, also Oil.

CODO. Hind. Paspalum frumentaceum. *Kœn.* A small grain, sown early during the rainy season.This grain frequently has inebriating properties, when made into bread. Such Codois known by the name of Mutouna, from Mutt, drunk, intoxicated. In appearance it resembles ordinary Codo. It is sown as ordinary Codo, and comes up as Mutouna, but only in those fields on which Codo has been previously grown, and even in such case, only perhaps in one instance out of ten. These curious properties of Codo have invested it with a degree of mystery in the eyes of the natives of India, and some classes even worship it as a god. Thus, the Kakun rajpoots of Ghazeepoor are said to pay worship to this divinity. They never cultivate or eat Codo;

> " Nefas violare et frangere morsu,"

and the reason assigned is that, while under the influence of Mutouna, they were set upon by some of the neighbouring tribes, and thus lost the greater part of their once extensive possessions. "Kisaree" (lathyrus sativus) is another grain which is found to have injurious properties.—*Elliot.*

COELAGOERYP, a race in Cochin who make bows, arrows, shields and other weapons. The Canniargoeryp are a race whose vocation is to teach the art of fencing and the use of weapons; the Coelady are trumpeters.

CŒCILIIDÆ, a family of reptiles of the order Batrachia apoda, family contains two genera, Cœcilia oxyura, D. et. B., which is found in Malabar, and the genus Epicrium of which E. glutinosum, Linn., is found in Ceylon, and E. monochroum, Bleeker, in Pegu. These very singular reptiles were first introduced to the notice of European naturalists in the middle of the 18th century by Linnæus, who gave to the Ceylon species the name Cœcilia glutinosa. This is an inch in diameter and nearly two feet in length. Its eyes are so small and imbedded as to be undistinguishable to ordinary observers, who believe the reptile to be blind. Like snails, eels, and some salamanders, it secretes a viscous fluid from minute pores in its skin. The skin is furrowed into 350 circular folds, in which are imbedded minute scales. The head is tolerably distinct, with a double row of fine curved teeth for seizing the insects and worms on which it is supposed to live.—*Sir J. F. Tennent, p.* 318. See Batrachia.

COEL. HIND. A bird of the class Aves, of the family Cuculidæ, Order iii. Insessores. It is the Eudynamys, or Cuculus orientalis, and inhabits Ceylon, India, Malay countries and China, and is called Coél, HINDI. "Kokil," BENG., "Chule," MALAY, and "Cowdecoha," SINGH, all of which are obtained from its ordinary call, which closely resembles the word "koil." Like the cuckoo of Europe, this is, in India, the harbinger of spring, and its call, though shrill and disagreeable, is associated with all the joys and labours of husbandry of that season, and is quoted in the rhymes and proverbs of the people. Thus "Coel bolee, Sebundee dolee," the cry of the coel is the grief of the sebundy soldier, meaning that the disbanding of the armed men gathered together for collection of revenue depends on the coel's note. Sebundee being a corruption of Sipah Hindee, in distinction to Moghul or foreign troops, who were always kept up. The coel indeed occupies much the same place in India that the cuckoo does in Europe. The European names, even, are all derived from the Sanscrit name Cuculus. Pliny says that the vine-dressers deferred cutting their vines till the cuckoo began to sing. There is the Cuckoo-Ale of England, which the labourers leave their work to partake of, when the first cuckoo's note is heard. There is also the vulgar superstition that it is unlucky to have no money in your pocket when the first cuckoo of the season is heard, and the amorous Hobnelia tells us, that in love omens its note is equally efficacious.—*Elliot.*

CŒLUS. See Kama.

COENTRO. PORT. Coriander seed.

COEPANG. A Dutch Settlement in the Island of Timor.

CŒLEBOGYNE. A genus of plants belonging to the natural order Orchiaceæ. The most gaudy of the plants of Borneo are perhaps the various species of Cœlogyne, called collectively by the natives the 'bu-nga kasih-an,' or the flowers of mercy; their white and orange coloured flowers are exceedingly delicate and beautiful, and they are all highly fragrant. Voigt enumerates about twenty species, at the foot of the Himalaya, Nepaul, the Khassya hills and China, namely—

angustifolia.
barbata.
cristata.
decora.
elata.
fimbriata.
flavida.
gardneriana.
interrupta.
longicaulis.
maculata.
media.
nitida.
ocellata.
ovalis.
præcox.
procera.
prolifera.
rigida.
undulata.
wallichiana.

CŒLOPS. A genus of the Mammalia, of the sub-family Rhinolophinæ, of the sub-order Cheiroptera or bats: the families, sub-families, with the genera and numbers of species, are as under:—

Sub-order—Cheiroptera. Bats.
Fam.—Pteropopidæ. Frugivorous Bats.
3 Gen.—Pteropus, 4 sp.
,, Cynopterus, 2 sp.
,, Macroglossus, 1 sp.
Fam.—Vampyridæ. Vampyre bats.
Sub.-Fam.—Megadermatiuæ.
1 Gen.—Megaderma, 4 sp.
Sub.-Fam.—Rhinolophinæ.
5 Gen.—Rhinolophus, 11 sp.
,, Cœlops, 1 sp.
,, Rhinopoma, 1 sp.
,, Nycteris, 1 sp.
Fam.—Noctilionidæ.
Sub.-Fam.—Taphozoinæ.
1 Gen.—Taphozous, 3 sp.
Sub.-Fam.—Noctiloninæ.
1 Gen.—Nyctinonus, 1 sp.
Fam.—Vespertilionidæ.
Sub.-Fam.—Scotophilinæ
3 Gen.—Scotophilus, 6 sp.
,, Noctulinia, 1 sp.
,, Nycticejus, 8 sp.
Sub.-Fam.—Vespertilioninæ.
8 Gen.—Lasiurus, 1 sp.
,, Murina, 2 sp.
,, Kerivoula, 4 sp.
,, Vespertilio, 5 sp.
,, Myotis, 5 sp.
,, Plecotus, 2 sp.
,, Barbastellus, 3 sp.
,, Nyctonilus, 1 sp.

COFFEA, a genus of plants belonging to the natural order Cinchonaceæ. There are several species, viz. C. Arabica, of Arabia, from which it has been introduced into many countries; C. bengalensis, the Bun-kava or wild coffee, which grows in Assam, Nepaul, and the Khassya hills: C. elliptica, *Thwaites*, a small tree of Ceylon, growing to 10 or 12 feet high in the Hinidoon Corle, C. guianensis, *Aubl.* of Guiana and Trinidad, C. Mauritiana, *Lam.* of Bourbon, C. Mexicana, *D. C.* and C. obovata of Mexico: and C. tetrandra of the Khassya mountains, also Wight describes Coffea alpestris, Grumelioides, and Wightiana. —*Voigt* 392,3. *Wight Icones.*

COFFEA ARABICA. Linn. Coffee.

Kahwa,	Ar. Hind. Pers. Malay. Maleal, Polish.	Koffe, Koffebohnen,	Ger.
		Kawa, Coffi,	Guz. Hind.
		Caffee,	It.
Bun,	Ar.	Kopi,	Malay.
Kava,	Beng.	Caffe,	Port.
Boond	of Bombay.	Kofe,	Rus.
Kappee	,,	Copi-cotta,	Singh.
Ka-hpi,	Burm.	Cafe,	Fr. Sp.
Kaffe, Kaffebonner,	Dan.	Capi,	Tam, Tel.
Koffy, Koffibunen,	Dut.	Khavey,	Turk.
Eleave,	Egypt.	Chaube,	,,

The Coffee tree is supposed to be indigenous to the mountain regions of Enarea and Cuffa to the south of Abyssinia, whence, about the fifteenth century it was introduced into Arabia; into Mauritius and Bourbon in 1718, and Batavia in 1723, and subsequently into the West Indies. It is one of the most valuable of the plants which have been distributed by man. Its large, pure white, sweet scented flowers appear in March, April and May, and it fruits in November, December and January. Its fruit, known as the coffee berry, contains an active principle called caffeine, which has been found to be identical with theine, and a decoction of the roasted berries or an infusion of the berries is a well known article of diet. At present, decoctions or infusions of coffee, tea, cocoa, matao, Paraguay tea, guarana and kola nuts, constitute the beverages of the European, American, Asiatic and African peoples. These have been selected by an unerring instinct which has divined in each plant the remarkable alkaloid theine. Different in botanical characters, varied in genera, not very unlike in flavour, they all contain this valuable active principle. The theine in dried kola nuts is about 2 per cent., coffee has 0·5 to 2·0 per cent, and tea from 0·5 to 3·5 parts in 100. The coffee berry consists almost wholly of albumen, which surrounds the small embryo of the seed, coffee in infusion or decoction is a stimulant. Coffæa Arabica thrives plentifully in the Dutch Archipelago; at Minahassa were nearly six millions of trees, each tree producing annually a pound. *McCulloch; Waring; Royle; Birdwood; Voigt. Journ. Ind. Arch.*

COFFEA MAURITIANA. Lam.

C. Arabica, β.	*Willde.*	C. sylvestris,	*Willde.*
C. myrtifolia,	*Roxb.*	Cafe'Marron,	Fr.

A plant of the Mauritius, Bourbon.—*Voigt.*

COFFEE PLANTING, as a branch of agricultural industry, has only been introduced into India in comparatively recent times, but it has attracted many persons, and in Ceylon, in the south of India, in Coorg and Wynaad, on the slopes of the Neilgherry hills, and on the Shevaroy Hills, the expenditure in forming coffee estates, may have amounted, up to 1870, to about twelve millions sterling. A portion of that amount was wholly lost; on another portion the returns have been unremunerative. There have been large sums made by land speculations, and several estates have paid a handsome interest, but both in Ceylon and Southern India, the losses have been considerable, often ruinous. In the Netherlands India, the coffee planting has been a government monopoly, and there has been a very large exportation of coffee from Java and the Celebes, but the most recent information is to the effect that the monopoly is not, or is but little, remunerative. The native country of the useful plant, the Coffea Arabica, seems to have been the highlands of Abyssinia. Col. Playfair tells as that Abd el Kadir Mahomed el Azari el Jeziri el Hanbali, who wrote in Egypt about A. D. 1587, relates that in the middle of the 15th century, Jemal ed din Abu Abdulla Mahomed bin Saeed ed Dubani was kadi of Aden, and having occasion to visit Abyssinia, he found his countrymen there drinking coffee, and on his return to Aden introduced it, whence it passed into Arabia generally, and into Mecca, Egypt, and Europe. Sheikh Ali Shaduli ibn Omar settled near the sea about A. D. 1630, on the plain now occupied by the town of Mocha, and his reputation drew people around him till a village was formed. He greatly recommended the use of coffee, and he has ever been regarded as the patron saint of Mocha, the people having, on his demise, erected over him an elegant tomb. In Everard's Treatises (p. 64) Tavernier seems to be quoted as remarking that "Coffee grows neither in Persia nor in India, where it is in no request; but the Hollanders drive a great trade in it, transporting it from Ormus into Persia, as far as Great Tartary, from Balfara into Chaldea, Arabia, Mesopotamia, and the other provinces of Turkey. It was first found out by a Hermite whose name was Sheck-siadeli, abouty twenty years ago, before which time it was never heard of in any author either ancient or modern." From that time small quantities have been grown in Ceylon and India, for a very limited local consumption, but it is to the British that the world generally are indebted for its great extension in India.

Cultivation in Arabia.—In Arabia Felix, the culture is principally carried on in the kingdom of Yemen, towards the cantons of Aden and Mocha. Although these countries are very hot in the plains, they possess mountains where the air is mild. The coffee is generally grown half way up on their slopes. When cultivated on the lower grounds, it is always surrounded by large trees, which shelter it from the torrid sun, and prevent its fruit from withering before their maturity. The harvest is gathered at three periods; the most considerable occurs in May, when the reapers begin by spreading cloths under the trees, then shaking the branches strongly, so as to make the fruit drop, which they collect and expose upon mats to dry. They then pass over the dried berries a heavy roller, to break the envelopes, which are afterwards winnowed away with a fan. The interior bean is again dried before being laid up in store. The principal coffee districts are Henjersia, Tarzia, Oudein, Aneizah, Bazil, and Weesaf. The nearest coffee plantations are three-and-a-half days journey (about 80 miles) from Aden. Captain S. B. Haines, Indian Navy, formerly political agent at Aden, mentions that

A camel load is about 400 lbs = 25 frazla or bales.

	G.C.	Commassees
The price of ditto inland	31	41
A Mocha duty to Dewla uncertain.		
Bake fee one butsha on each frazla,		25
Weighing and clerk's fee		20
Packing		40
Camel hire to the coast	12	50
Cost from Sana to Mocha	44	45

Coffee is brought into the Sana market in December and January from the surrounding districts. The varieties are—

1. Sherzee best—price 1 G.C. frazla 25 butsha.
2. Ouceaime.
3. Muttanee.
4. Sharrazee.
5. Hubbal from Aniss.
6. Sherissee from ditto—price per frazla 1 GC.15B

The nearest place to Sana where the coffee tree grows, is at Arfish, half a day distant. Attempts have been made to introduce the shrub in the garden of the Imaum at Sana, but without success, ascribed to cold. Kesher is more prized at Sana; best is Anissea, and is sold at a higher price than other coffee, namely, g. c. 12 per 100 lbs.; inferior, at from 4, 5, and 6. Rain falls in Sana three times in the year. 1st. In January, in small quantities. 2nd. Beginning of June, when it falls for eight or ten days. By this time the seed is sown, and the cultivators look forward to the season with anxiety. 3rd. In July, when it falls in abundance. A few farmers defer sowing till this period, but it is unusual, when they expect rain in June. The coffee plant is mostly found growing near the sides of mountains, valleys, and other sheltered situations, the soil on which has been gradually washed down from the surrounding heights, being that which forms its source of support. This is afforded by the decomposition of a species of claystone (slightly porphyritic), which is found irregularly disposed in company with a few pieces of trap-rocks, amongst which, on approaching Sana from the southward, basalt is found to preponderate. The clay-stone is only found in the more elevated districts, but the debris finds a ready way into the lower country by the numerous and steep gorges which are conspicuous in every direction. As it is thrown up on one side of the valley, it is carefully protected by means of stone walls, so as to present to the traveller the appearance of terraces. The plant requires a moist soil, though much rain does not appear necessary. It is always found in greater luxuriance at places where there is no spring. The tree at times looks languid, and half withered; an abundant supply of water to the root of the plant seems necessary for the full growth and perfection of its bean. Mr. Palgrave says the best coffee is that of Yemen exported from Mocha, but Arabia, Syria and Yemen consume $\frac{2}{3}$rds of it, and the other third finds its way to Europe to the west of Constantinople and is used by Turks and Armenians. The rounded, half transparent, greenish brown berries are the best. It is also exported by the Red Sea into the Hejaz and Kaseem in Shimer. The Abyssinian coffee berry also excellent is inferior in qualities to that of Yemen; it is larger. The Indian berry ranks next. In Arabia, the picked berries are roasted in a ladle until they crackle, redden and smoke a little, and are carefully withdrawn from the heat long before they are black or charred, and are then put to cool on a glass platter. They are then bruised (not powdered) in mortars, poured into hot water, and boiled gently and not long, all the time stirring with a stick, add when boiling a few aromatic seeds, "Heyl," and a little saffron and cloves. The liquor is then strained.

Ceylon.—When Ceylon became a British possession, it was considered as valuable only for its pearls and spice; at the present time, the pearl fishery of the island has ceased to be productive, whilst the trade in cinnamon has sunk into an almost profitless speculation. Coffee is now the great staple of this island, and deservedly ranks first on account of the money value of the yearly exports, not less than the great number of persons, both Europeans and natives,to whom it affords a regular employment. The yearly crops in 1852 amounted to 300,000 cwts. The coffee tree was introduced into Ceylon by the Arabs before the arrival of the Portuguese, but the Singhalese only employed its tender leaves for their curries, and its delicate jasmine-like flowers for ornamenting their temples and shrines. The Dutch carried the coffee tree to Batavia in 1690, and about the same time they began its cultivation in Ceylon, but again ceased in 1739. Its culture, however, continued to be prosecuted by the people, and after the British occupation, the mahomedans collected it in the villages, and brought it to Galle and Colombo, to be bartered for cutlery, cotton and trinkets. It was extensively diffused over the country by the agency of birds and jackalls. In 1821, its cultivation may be said to have partially commenced, and in 1836, it had become widely extended through the Kandyan provinces. In 1839 not a tree had been felled on the wide range of the Himasgaria mountains. In 1840 a small plantation was,for the first time, formed. In 1846 there were fifty estates there, averaging each 200 acres of planted land, and yielding an average crop of 80,000 cwt. of coffee. After 1830 the quantity of coffee shipped to England yearly increased, although it still consisted entirely of the native grown, badly prepared berry, reared without any attempt at cultivation, and ranking below almost every other kind of coffee. In 1830 the first attempt at coffee cultivation and curing was made on a considerable scale by the governor of the island, Sir Edward Barnes. The success which attended this experiment, although partial, added to the lowering of the import duty on British East India coffee by the imperial legislature in 1835, induced several merchants and others to apply for waste forest land, for the cultivation of coffee on the West Indian principle. During 1836 and 1837, upwards of 7,000 acres of crown lands were purchased, and partly cleared and planted, and in 1836 the crop was 60,330 cwt. The success of these first operations drew many capitalists to Ceylon for similar purposes, and the land sales, which in 1838 amounted to 10,000 acres, grew to 78,000 acres in 1841. By the end of 1847, when fresh operations had ceased, about three millions sterling appear to have been invested in coffee planting in this island chiefly by Europeans. The number of plantations formed was 330,the majority of which contained from 120 to 300 acres of cultivated coffee. The total acres brought under this culture up to 1849, were 50,840; of which, however, several thousands had ceased to be productive. These estates are situated at a great variety of altitudes, ranging from 1,000 to 4,500 feet above the sea level. In 1839, the export was 41,863 cwt. In 1849, the total export was 387,526 cwt., value £456,663 ; they rose to 601,655 cwts, value £1,488,019 in 1859. With the increase of coffee growing in Ceylon, the decrease in the production in the British West Indies, has been simultaneous.

Year.	Imported into United Kingdom, from the West Indies. lbs.	Exported from Ceylon. lbs.
1827	29,419,598	1,792,448
1837	15 577,888	6,756,848
1847	5,259,449	19,475,904
1857	4,054,028	67,453,680

In Ceylon, in 1859, on 404 coffee estates, the area yielding coffee was 130,000 acres, and that planted but not yet bearing was 17,179. The number of coolies employed was 129,200, and the produce on an average of the two previous years was 407,100 cwt. of coffee, averaging 3⅓ cwt. the acre. The value of the coffee exported had risen from £107,000 in 1837 to £1,296,736 in 1857.

The upland coffee farm formed by Sir Edward Barnes in 1825,was at Gangaroowa near Paradenia,and from that year then commenced progress which converted a sluggish military colony into an active commercial country, and transferred the supply of coffee from the West to the East.

At page 107 of the Calcutta Review for 1857, was given the following as about the production of coffee throughout the world :—

IN THE WEST.

Brazils,	300	millions of lbs.
La Guayra and Porto Cabello,..	30	,,
St. Domingo,	32	,,
Cuba and Porto Rico,	25	,,
Costa Rica,	10	,,
British West Indies,	6	,,
French and Dutch ditto	6	,,
		409

IN THE EAST.

Java,	140	millions of lbs.
Ceylon	56	,,
Indian Peninsula,	6	,,
Sumatra,	5	,,
Arabia	3	,,
Philippine Islands	3	,,
Celebes and Siam	2	,,
		215
	Millions of lbs.	624

The present consumption of the world, excepting of course the countries of production, is stated to be as follows :—

	Millions of lbs.
United States and British America	170
Holland and Belgium	125
German Customs Union	95
Other German States	46
France,	33
Great Britain,	32
Sweden and Denmark	20
Mediterranean Countries,	20
Spain and Portugal	15
Switzerland	13
Russia	12
Australia and Cape of Good Hope	6
	587

Cal. Rev. 1857, *p.* 107.

The following was the consumption in Great Britain and the revenue for the years:—

Years.	lbs.	£.
1824	8,262,943	420,988
1825	11,082,970	315,809
1828	17,127,633	440,245
1835	23,295,046	652,124
1839	26,789,045	779,115
1840	28,723,735	921,551
1844	31,394,225	681,616
1845	34,318,095	717,871
[illegible]	[illegible]	[illegible]
1847	37,441,373	746,436
1848	37,106,292	710,270
1849	34,431,074	643,210
1850	31,226,840	566,822
1851	32,564,164	445,739
1852	35,044,376	438,084

The following will further shew the British traffic in this product.

	West India.		Ceylon.		Mocha, &c.	Foreign.
	Casks.	Bags and Barrels.	Casks.	Bags and Barrels.	Bales.	Bags.
Imported......1858	1,140	4,900	31,700	82,200	18,700	63,600
1857	2,170	5,600	26,070	58,400	15,840	90,820
Delivered for Home Consumption 1858	940	4,403	20,100	50,300	12,370	48,500
1857	1,050	4,320	16.400	57,570	13,320	52,350
Delivered for Export.........1858	220	470	13,800	20,180	3,075	37,900
1857	470	300	9,080	5,370	1,770	14,500
Stock, Dec. 24 1858	490	870	6,660	45,200	11,060	23,800
1857	520	1,420	8,880	31,050	7,850	49,450

As a rule, good coffee cannot be profitably grown in Ceylon at a less altitude than 2,500 feet, the most favourable height being from 3,000 to 3,500 feet. The best plantations are situated in the Kandian province, where the thermometer ranges at noon about 76, and in the morning not higher than 60. The principal drawback to the success of these properties has been the absence of roads in many directions, compelling the planter to convey his half dried crop on the heads of coolies, or on the backs of bullocks, for a distance of 25 to 35 miles, before finding any carriage transport. The dampness and coolness of the hill climate renders it impossible to perfectly cure the coffee berry in those elevated regions; it has therefore to be conveyed to Colombo, where a constant high temperature enables the merchant to complete the drying process, which the planter had but commenced. In 1866—7, 837,231 cwts. of coffee were exported from Ceylon, of which 200,129 were grown by natives. Its annual export of cinnamon is lbs. 819,851, of cocoanut oil cwts. 109,557, of plumbago cwts. 50,711, of coir 38,543, of ebony cwts. 21,582, and of deer horn cwts. 8,501. Of the Ceylon coffee, that grown about Ramboddi fetches the highest price, from the superiority of the make, shape, and boldness of the berry. The weight per bushel, clean, averages 56 lbs; 57½lbs. is about the greatest weight of Ceylon coffee. The lowest in the scale of Ceylon plantation coffee is the Koombera, which averages 54½lbs., clear, per bushel. The prices of good ordinary Ceylon coffee in the port of London for the eight years 1846 to 1856, in the month of January: 1853, 46s. to 48s; 1852, 40s. to 42s.; 1851, 38s. 6d. to 40s. 6d.; 1850, 56s. 6d. to 57s. 6d.; 1849, 31s. to 32s. 6d.; 1848, 31s. 6d. to 33s.; 1847, 39s. 6d. to 41s. 6d.; 1846, 49s. to 50s. Forest lands were those usually planted in Ceylon, and the expense attendant on clearing and reclaiming them from a state of nature, and converting them into plantations, is estimated to average £8 per acre. Coffee planting however failed over a considerable portion of the southern province of the island, where the experiment was tried. The temperature was found to be too equable, not descending sufficiently low at any time to invigorate the plant; which, though growing luxuriantly at first, soon became weak and delicate. The districts in which the coffee is principally cultivated, extend over nearly the whole of the hilly region, which is the medium and connecting link between the mountainous zone and the level districts of the coast. To the height of 3,000 feet the chief crop ripens in October and November, and a small second gathering is looked for in May. As regards the yield, some estates in Ceylon have produced upwards of 15 cwt. per acre, but it is a good estate that will average seven, and many do not give more than 4 cwt. the acre. About the year 1842, there was a great rush into the coffee planting of Ceylon, and much money was lost. The magnitude of the "Coffee Mania," and the rapidity with which it spread may be judged of from the following figures. The quantity of hill forests available for the cultivation of coffee, sold by the Government up to October 1846 (since which scarcely any land has been sold), was 287,390 acres. Previous to January 1841 very little land had been disposed of. Of this vast tract of private property, we find by official returns that on the 31st December 1847, there were 50,070¾ acres cultivated, of which 25,198¼ were planted previous to the 31st December 1844, and the remaining 24,872½ in the three following years. The gross cost of this is said to have amounted to the enormous sum of £5,000,000 sterling. There has also been great loss of life amongst the labourers. The Kandyans and the lowland Singhalese were found unsuitable for the work, besides being too few, and there was a large importation into Ceylon of labourers. The arrivals at and departures from the ports of Ceylon of Tamil coolies, from 1841 to 1848 were—

Years.	Arrivals.			Departures.		
	Men.	Women.	Children.	Men.	Women.	Children.
1841	4,523	363	164	4,243	274	117
1842	9,025	279	166	10,691	345	228
1843	6,298	162	248	18,977	194	482
1844	74,840	1,181	724	38,337	825	535
1845	72,526	698	177	24,623	145	36
1846	41,862	330	125	13,833	48	23
1847	44,085	1,638	417	5,897	79	33
1848	12,308	504	229	12,749	229	15

During the years 1841 to 1846 the Tamil labourers must have saved or remitted to their country from £385,000 to £400,000 : whilst the value of rice imported in Ceylon during the some period, chiefly from the Malabar and Coromandel coasts, was valued at £2,116,189.

But against this pecuniary advantage, a great loss of life is to be placed, for during the eight years above enumerated, not less than 70,000 Malabar coolies are believed to have died in Ceylon. The quantities of coffee exported from Ceylon from 1836 to 1851.

	Quantity. Cwt.	Value. £.
1836	60,329	
1837	34,164	
1838	49,541	
1839	41,863	
1840	68,206	
1841	80 584	196,048
1842	119’805	269,763
1843	94,847	192,891
1844	133,957	267,663
1845	178,603	363,259
1846	173,892	328,781
1847	293,221	456,624
1848	280 010	387,150
1849	373,593	545,322
1850	278,473	609,262
1851	339,744	
Total in 16 years	2,600,832	
Average	162,552	

—(*Ceylon Almanac for* 1853.)

In all the coffee-producing countries of the East, and in most of those in the West, the berry is grown on land more or less elevated, at an altitude rarely less than one thousand feet, the average being certainly two thousand feet above the sea-level. There is a little coffee produced in one district of Ceylon where the altitude does not exceed nine hundred feet, but this is a very rare exception to the general rule. Two localities in Bengal which promised to be favorable to this cultivation, are not more than two hundred feet above the level of the sea: the one at a distance of about two hundred miles to the north-west of Calcutta, the other scarcely more than eighty miles from the capital in an easterly direction. It is however stated by Niebuhr to have been brought from Abyssinia to Yemen by the Arabs from a country similar to their own plains and mountains. By that people it had for ages been cultivated in the hilly-range of Jabal, in a healthy temperate climate, watered by frequent rains and abounding in wells and water-tanks. In Arabia the plants are grown in grounds that are continually irrigated, and in soil from one to one and a half foot deep. Among the plantations are interspersed various kinds of trees, whose shade has a beneficial effect upon the coffee-bushes. When in flower they diffuse a most delicious fragrance, in the midst of which the natives fix their habitations. The fruit begins to ripen in February; and when the seeds are prepared, they are conveyed to the city of Beitel Fakih, whence part goes to Mocha, and another portion to Hodoida and Loheia, whence it finds its way to Djedda and Suez for the Turkish and European markets.—(*Engl. Cyc. page* 50). In Lower Bengal the cultivation of the coffee plant made some progress, contrary to the expectations of many who were entitled to speak on the subject.

Mysore, has for a long period furnished an article which has gradually grown into public favor in England at a medium value. The coffee of Travancore sells in the London market at about the rate of ordinary Ceylon plantation kinds, but the produce of the slopes of the Neilg herries bids fair to rival some of the better qualities of that coffee. It is now about twelve years since the slopes of the Neilgherries first attracted attention as suitable for the growth of coffee. The altitude, the soil and the climate were highly reported upon by such of the Ceylon panters as visited the early clearings about 854.

South East District of Wynaad—Coffee Statistics.

Division.	No. of Estates.	Approximate Extent of Cultivation.					Crop.
		Aged.	1862.	1863.	1864.	Total.	1863-4.
		Acres.	Acres.	Acres.	Acres.	Acres.	Tons.
Carambady... ...	6 Estates.	50	125	190	270	635	32
Pandaloor... ...	4 do.	280	35	100	...	415	87
Davala... ...	14 do.	1,190	165	130	290	1,775	268
Nelliallum	4 do.	25	50	20	150	245	10
Nellacotta.. ...	3 do.	...	...	..	170	170	...
Neilgherry Peak Valley. ...	7 do.	245	45	115	220	625	153
Ouchterlony Valley.. ...	8 do.	1,150	400	400	135	2,085	615
Goodaloor Valley... ...	7 do.	195	...	170	305	670	70
Goodaloor	7 do.	50	25	305	290	670	25
Nundhutty... ...	3 do.	...	80	55	80	215	...
10 Divisions... ...	63 Estates.	3,185	925	1,485	1,910	7,505	1.260

The following, showing the Coffee Plantations in 1862, in certain districts of the Madras Presidency prepared from returns furnished to the Board of Revenue by the Collectors of those Districts. The Board state that the information on which the Return is based, is partial, imperfect, and been obtained with much difficulty and that it can be considered only an approximation to the true state of things.

Districts.	Total number of Estates.	Total extent of Estates in Acres			Total Acres in cultivation.			Total Acres bearing.			Total Acres young, not bearing.			Total crop in 1860 in Cwts			Estimated crop in 1861 in Cwts.			Highest and lowest elevations of Estates above sea level in feet.	Remarks.
		Acres.	G.	Sf	Acres.	G.	Sf	Acres.	G.	Sf.	Acres.	G.	Sf.	Cwt.	Q.	lbs.	Cwt.	Q.	lbs.		
Madura...	94	135	16	916	135	16	916	90	34	914	44	22	2	132	3	12	65	2	14	.....	
Tinnevelly..............	24	4,109	0	0	1,308	0	0	644	0	0	664	0	0	1,531	0	0	......			3,500 feet. 1,500 do.	
Coimbatore............	43	6,707	0	0	993	0	0	417	0	0	576	0	0	... ..			......			6,000 do. 3,000 do.	
Salem....................	158	5,200	9	7	2,166	14	7	1,702	36	7	463	18	0	4,851	2	10	4,781	2	15	5,000 do. 3,000 do.	
North Canara...........	...	....			....			....			......			......			......			....	
South Canara...........	19	66	24	3	55	4	7	6	0	8	49	3	15	9	1	0	9	1	0	....	
Malabar...	75	30,029	0	0	11,365	20	0	7,203	30	0	4,161	30	0	*67,502	0	0	*73,915	0	0	About 3,500 feet. ,, 3,000 do.	*Exported from Malabar in 1859-60 and 1860-61.
Total......	413	46,247	9	926	16,023	14	930	10,064	20	929	5,958	33	17	74,026	2	22	78,771	2	1		

The general exports from India from 1850-51 to 1860-1 were as under.

Exports.

Years.	lbs.	Tons.	Value.
1850-51	7,257,421	3,239	100,509
1851-52	8,710,528	3,889	84,306
1852 53	7,865,552	3,509	97,490
1853-54	……	…	109,761
1854-55	7,401,151	3,303	82,794
1855-56	9,206,103	4,110	120,201
1856-57	……	…	132,819
1857-58	6.123,827	2,733	99,727
1858-59	11,695,195	5.221	135,037
1859-60	14,345,809	6,404	188,534
1860-61	19,119,209	8, 535	337,436

In the ten years 1851-52 to 1860-61 there were 41,287$\frac{1}{7}$ tons of coffee exported from the Madras districts.

Year.	Quantity.		Value.
	Cwts.	lbs.	£.
1851-52	35,013	39,21,435	3,75,995
1852-53	47,305	52,98,191	4.99,701
1853-54	64,339	72,05,996	7,15,562
1854-55	56,608	63,40,186	6,61,656
1855-56	76,798	86,01,464	8,92,167
1856-57	79,193	88,69,609	9,44,446
1857-58	68,878	77,14,355	8,67,041
1858-59	101,539	113,72,338	1230,803
1859-60	130,163	145,78,228	18,75,054
1860-61	165,816	185,71,414	32,41,699

The following exports were to the United Kingdom.

Year.	lbs.	Value, Rs.
1866-67	85,60,695	19,89,182
1867-68	164,94,647	41,86,815
1868-69	276,01,510	65,53,652

The following was exported to Foreign Ports, in other Presidencies.

1866-67	161,10.050	37,87,743
1867-68	355,13,478	80,31,826
1868-69	473,31.372	107,49,353

The above will show how great had been the increase of coffee-planting in Madras. Indeed, about the year 1862, it was at its highest. Coffee lands, two years old, were then selling at £12 to 14 the acre. Of three year's growth, £15 to 17: of four years, £18 to £20; and in full bearing £20 to 25, when coffee was worth 75 to 95 shillings the cwt. From that year commenced doubts in the minds of planters, and ultimately, in some districts, the result was disastrous. Exceptional estates were paying dividends of twenty to sixty per cent., but from those yielding three cwt. per acre, and they were the great bulk, there were no returns. In Coorg the altitude seems to have been over-great, and the enemies of the coffee-tree, the bug, the rot, the borer, insufficient capital, and the want of the owner's eye, were numerous. In Mysore, in the autumn of 1862, the various yields were:

	Per acre. cwts.
Coorg… … … … …	7½
Astragram and Nuggur New Plantations.	6¼
Mungerabad old plantations … …	4½
Native plantations … … …	1¼

But the Coorg returns of 7½ cwts. were not deemed reliable. Under that date, there were said to be 45,000 acres of coffee in Astragram, 30,000 in the Nuggur Division, and 5,000 acres in Coorg. About three cwt. the acre was the average in Coorg, and there was cheap labour, cheap food and good roads. Yet in the autumn of 1866, the estates were unsaleable. As in every branch of industry, a special knowledge was needed for the selection of good and suitable land, skill was required in the formation of good nurseries, and in pruning, manuring and curing, and the economy always so essential to success.

A beautiful species of Strobilanthes, which grows in Coorg, is called the coffee plant, because thought to indicate soil suited for coffee trees. Coffee delights in a moderately warm and moist atmosphere, and in 1866, all the Coorg coffee tree became sickly. Coorg is deluged with rains during six months of the year, and scorched by the sun for the other half.—(*Bidie.*)

Coffee has been grown in Mysore almost from the same time that the Arabs have known it. It was brought there from Arabia by a mahomedan pilgrim named Baba Booden, who formed a college on a spur of the hills now called after him, and from there the coffee plants spread. From the year 1832, Europeans entered into the agriculture, and Cannon's Mysore coffee, soon attracted the attention of dealers, for it rose from 1846-7, to an average of 96 shillings the cwt., and had fetched so high as 115 shillings, and the selling price of native grown coffee in Mysore rose from one rupee per maund of lbs. 28 to rupees six and eight per maund. The first European plantations, by Mr. Cannon, were at Chikmoogloor near the Baba

Booden Hills, the next were at the Munzerabad ghat, and for many years the Mysore coffee districts were confined to the region of the Western Ghats and the Bababooden Hills. Some attempts have been made to cultivate coffee in the open country, but without success; it seems to require forest land and considerable elevation and moisture. 'Cannon's Mysore' is grown on a range of hills from 3,500 to 4,000 feet above the sea, having the benefit of the south-west monsoon, which very seldom fails at all, never entirely, and it has, also, the tail-end of the north-east monsoon. It is probably to these advantages that the peculiar qualities of 'Cannon's Mysore' are attributed, viz., closeness of texture and richness of flavour. This elevation gives a pleasant climate well suited to Europeans. During the south-west monsoon the planter may be in his gardens all day long, without oppression in the hottest weather; the thermometer in the house on these plantations rises no higher than 81° or 82° Fahrenheit. The whole of the coffee district, with here and there an exception of feverish spots, possesses a climate in which the European can live and work with comfort, and, with moderate care and prudence, with health. Planting has of late years been carried to such an extent by Europeans and natives in Mysore, that but little available land remains. The mountain and forest wastes have been turned into rich productive gardens. From being the most wild and desolate parts of Mysore, these districts have become very prosperous, and the people have been raised from poverty to comfort, and in many instances to wealth. The natives are benefiting largely by the capital and example of European planters, and are learning the science of planting.

Dekhan.—In gardens in the Deccan, the coffee plant seldom exceeds nine or ten feet in height, plants are easily raised from fresh seed in a nursery bed where they may remain until they are one or two feet high, when they should be carefully removed to the situation where they are to remain for good, and placed at about twelve feet apart; they will thrive well in almost any good light soil, but require a certain amount of protection from the sun. The most favourable situation for a plantation is the side of a hill exposed to the east. As the plants suffer much from hot winds, the shade of plantain trees offers a good protection to them. In the neighbourhood of Aurungabad, were some coffee trees which bore fruit in abundance in a garden enclosed on all sides, and which even in dry weather was moist from being shaded by a number of high cocoanut and soopari trees, and the whole further protected by surrounding buildings, from the dry winds during the greater part of the year. —*Riddell.*

Tenasserim.—Coffee not inferior to the best from Mocha, has been raised at Tavoy, but the plants do not flourish after the fourth or fifth year.—*Mason.*

On the hilly districts on the east coast of the Gulf of Siam, the cultivation is carried on on a limited scale. The annual produce is not much more than about 400 cwt., although it was understood to be increasing. The quality of the berry is reckoned to be nearly equal to Mocha, and it commands a high price in the English market.

Soil.—The soil recommended in India is a good rich garden land, the situation high and not liable to inundation, and well sheltered to the north-west, or in such other direction as the prevailing storms are found to come from. Earth pulverised and cleared from the roots of rank weeds, but particularly from the coarse woody grasses with which all parts of India abound. A plantation, or hill affording shade to the shrub has been found beneficial in all tropical climates, because, if grown fully exposed to the sun, the berries have been found to be ripened prematurely. The seed reserved for sowing must be put into the ground quite fresh, as it soon loses its power of germination. Clean well-formed berries, free from injury by insects, or the decay of the pulp, should be selected. These berries must be sown in a nursery, either in small well manured beds, or in pots in a sheltered spot, not too close, as it is well to leave them where sown until they acquire a good growth; indeed, it is better if they are removed at once from the bed where they are sown, to the plantation. If left too long in the nursery, they become unproductive and never recover. The distance at which they should be put out in the plantation need not exceed eight feet apart in the rows, between which, also, there should be eight feet distance. The seedlings appear in about a month after the seed is sown. A good manure is found in the decayed leaves that fall from the trees themselves, to which may be added the weeds produced in the plantation, dried and burnt. These, dug in, are always useful as manure, and should be utilized. Cow-dung is the best manure for the seed-beds.

The coffee seedlings from the nursery may be planted out in seven months, and they will yield a first crop in three or four years. A bushel will rear 10,000 plants covering ten acres. Coffee trees should be planted in rows six or eight feet apart in holes 20 inches deep by 18. They should be regularly lopped and pruned, so as to admit the sun to ripen the fruit on every branch, and be kept four to six feet high. The trees are generally in full bearing in the third or fourth year.

After the berries are plucked and brought in baskets, to the warehouse, the pulp or fleshy part is removed. The berries are placed in heaps in a loft, above the pulper. They are then sent down a shoot, into which a stream of water is conducted, and are thus washed into the pulper. The pulper is a roller covered with a sheet of copper, made rough like a nutmeg grater. The berries follow it as it goes round, but there is only room for the seed to pass, so that the pulp is squeezed off and carried away by a stream thrown off by the water wheel, while the naked coffee drops on the other side. The seeds are still covered with glutinous matter, to remove which they are washed in a cistern, the inferior ones floating while the good ones sink. The coffee seeds are then laid out on the *barbecus*, (which are square platforms of brick, plastered with chunam, with sides a foot high,) where they dry in the sun for about three days and are afterwards stored in godowns.

In this culture, the first care is the selection of a locality. This is of such paramount importance that if a material error be committed in choosing the land, all future economy, care and exertion will be but thrown away. The great requirements are elevation, shelter from wind, a good soil, and proximity to a cart road.

The coffee plant will grow and reproduce itself on a level with the sea, and, at 2,000 feet above it, the trees, whilst young, will have the most luxuriant appearance, come soonest into bearing, and yield the greatest measurement quantity per acre, but the bean is light and of an inferior quality. At and a little below this height there are in Ceylon extensive tracts of the richest land, but they are subject to long and frequent droughts, the crops are in some seasons scarcely worth collecting, and plantations formed in such lands soon fall off. This has been demonstrated on the plains of Doombera in Ceylon, where most of the estates have become comparatively worn out in eight or nine years.

The best Ceylon properties are situated on the mountains, where rain is frequent and the temperature moderate. The soil is not generally quite so rich as in the valleys, but the forest being heavy and the fallen timber decaying gradually, a small though constant return is made to the land, whereas the trees cut down on low gardens are carried to the towns for firewood and other purposes.

The aromatic properties (and consequently fine flavour) of the coffee plant are best developed in Ceylon between 3,000 and 5,000 feet above the ocean. The higher it is cultivated with care, below frost, the better will be the quality of the produce. A mild climate and rarified air are highly favourable to coffee, both of which are given by elevation. The cool climate to the Kandyan hills is equally invigorating to the planter and his shrubs, both luxuriating in a temperature of from 55° to 60° night and morning, whilst the thermometer rarely rises above 73° at noon. In the elevations above 4,000 feet the trees do not yield a maiden crop until three years after full bearing. The wood, taking long to grow, is hard and firm before nature calls on it to support fruit, and it is reasonable to expect that it will remain longer in full vigour than a plant which is forced by the heat of lower situations into a rapid growth and speedy fructification, and which prevents the application of nourishment from the completion of its own body to the precocious reproduction of its species.

The appearance of "high mountain beans," is long, blue, the longitudinal seam curved, with its sides close and compact; its specific gravity is greater and its aromatic principle more abundant and finer than that produced on low lands, which is attributed to its being grown slowly in a cold climate. Though the quality on the hills is superior, the quantity is less. Seven cwts. per acre is calculated upon, whilst ten cwts. is the average from low lands, though it is said that one of the Hunesgiria estates once returned 18 cwts. per acre.

The difference of cost when laid down in Kandy between 50*s*. and 80*s*. (London prices), on coffee, does not exceed the ratio of 2 to 3, and in most instances the proportion is lower, on the latter, the weight of the produce of one acre being less, the cost of land, carriage, freight, Colombo and London carriage, &c. &c., are proportionably lower and the profit higher. But coffee is one of those articles of which, though the inferior qualities may be unsaleable in Europe, a superior sample will always meet with purchasers about its real value, as it is consumed by a class who will have it, and who consequently must pay for it as a luxury. This was clearly shown in 1847 and 1848, when, although "Ceylon plantation" was sold from 35*s*. to 50*s*. per cwt. as a general price, a few samples from the highest estates brought 85*s*. and 92*s*.

In selecting land it is better to choose an easterly or northerly aspect, for though the morning sun falling on the dew is said to injure the plant, and the setting sun to improve its fruit, the advantage of shelter outweighs these considerations. Where land lying to the S. W. has to be opened, the manager will do well to take advantage of the natural facilities offered by the undulations of the surface and from fields, so as to avail himself of the protection afforded by rising ground with a belt of forest trees on its summit to windward, and such fields should vary from 7 to 10 acres in extent.

The southwest monsoon not only blows with great fury in the hill region of Ceylon, but appears to exercise a blighting influence, and to curl up and wither the few leaves it does not beat off the trees. After a strong gale, a field of coffee exposed either to its direct influence or any eddy wind, which is if possible more baneful, will be found in a great measure denuded of its leaves, the berries beaten off and the bark of the trees seriously injured round the part of the trunk where it strikes through the earth. When this is the case the best plan is to drive three stakes in the ground round the tree, and tie it lightly in such a manner that the friction and consequent exoriation may at least be avoided, cut the plant down to two feet, and propagate the plantain tree for shelter. Under this management the shrubs spreading laterally will soon interlace their branches, render mutual support to each other, cover the ground, and so acquire strength enough to resist the force of the wind in a great measure, and then the plantains may be eradicated, and the land if tenacious will have been improved by their growth.

The best soil is of a deep chocolate colour, friable and abounding with blocks and small pieces of stone, which in the rainy season prevent the excessive washing away of the mould, and by their obstructing evaporation in the dry weather, afford refreshing coolness and moisture to the roots of the plants; such patches of land are generally found at the bottom of the escarpments of the hills, or in elevated valleys and rarely on the slopes. Quartzose land, of which there is much, must be carefully avoided and clay is equally bad. Quartzose land, which looked more like sugar-candy than anything else, has been planted and trees grew tolerable for a year or two, but they could never screw themselves up to the fructiferous point. There is a black earth too, which has deceived some people; it has the appearance of fine rich garden mould, but is in fact disintegrated quartz and mica, not having any of the good felspathic components in it. It is of no use planting in a good surface soil, unless it have at least two feet of depth, as the coffee tree has a long tap root.

The first work is to prepare a nursery, which must be proportioned to the extent of land to be cultivated; and situated with regard to proximity to the extended fields. The forest having been cut down, the branches and logs are rolled on one side and the earth dug up a foot deep, all the roots and stones being carefully removed; it is then laid out in beds, six feet wide, with trenches between, which serve the double duty of drains and paths. Good seed having been procured, the grains are sown six inches asunder; if the land become parched, it will be well to shade it with green branches and irrigate it night and morning; should a long continuance of rain follow the sowing, the seed sometimes decays in the ground. It requires from six weeks to three months, according to moisture and warmth, before it germinates, and in four months more the seedlings are ready to be transplanted.

On opening an estate, the manager must look for his best soil and fell the forest in patches of not more than 30 acres in area. Some plantations have fields of two or three hundred acres, and in one instance in Ceylon there are one thousand acres in one clearing, but that is, to say the least, a very hazardous plan, for on such properties it is not a rare occurrence to see several acres together blasted by the wind and either permitted to run to jungle again, or dragging on a blighted, sickly existence, at an enormous and profitless outlay of capital.

When the forest is felled, the small branches must be lopped off and the larger ones thrown on them, which expedites the drying of the wood. Should there be no rain, the timber may be set fire to in a month. After a good running fire, very little has to be piled in heaps and consumed, as making neat work is a useless expense, baking the land destroys a great portion of its most valuable vegetable component parts, and the timber when left to decay forms excellent manure. The smaller branches which are not consumed should be cut up and laid as much out of the way of the plants and movements of the labourers as possible, but not burned. A Ceylon coffee garden bears no resemblance to a European garden. The land is generally a steep hill-side with undulating surface, huge rocks protruding their crowns, and enormous blocks of stone studding the whole extent. Blackened trunks of trees with their branches sprawling in all directions give the field the appearance of having once been the site of a town which is now laid in ashes, a confused heap of calcined stones and charred rafters.

It is estimated that an acre of jungle on the Neilgherries may be brought into bearing for Rs. 200 including all expenses. A good dwelling house will cost Rs. 4,000, the pulping house machinery and godowns Rs. 4,000 more. Th eentire cost of bringing 100 acres into bearing was generally reckoned at Rs. 30,000.

The coffee-plant begins to produce fruit when two or three and a half years old ; but the quality of the seeds from young stems is not so good as that from stems four or five years old. The size and colour of the bean (as the inner part of the seed is called) vary considerably, those from the West Indies being larger than those from the East.

From flowering to harvest is from eight to nine months. A field in full bloom is a beautiful sight, the clusters of white blossom contrast prettily with the deep green leaves, and the whole at a distance looks as if it has been snowed on. The flower only lasts one day. If the atmosphere be dry the bloom is sometimes lost, as it will not set without moisture; mists and light drizzling rains are the most favourable weather at this time.

The fruit grows on a foot stalk of half an inch, in clusters round the joints of the lateral branches, and when of full size, but still green, resembles small olives. A month before ripening it turns yellow and through different shades to ruby red, when it is ripe, and from its likeness to a European fruit is technically called "cherry." During the latter part of its growth, particularly, it requires a great deal of moisture, otherwise the bean will be shrivelled, not perfectly formed, light and of inferior quality. The climate of the hills is most beneficial when the fruit is filling and just before it ripens.

The "pulp" contains two seeds. They are covered by a viscous substance called "gum," and integument known as the "parchment," from its resemblance when dried to that animal product, and a pellicle named the "silver," which is very like gold beater's skin, and the grains of coffee, which are styled "beans :" sometimes there is only one bean in a cherry which takes a more rounded form and is called "peaberry." This is caused by only one of two embryos coming to maturity, whilst the other is abortive, the rudimentary form of which is always apparent.

When the fruit becomes blood red it is perfectly ripe and should be gathered.

The coffee tree, if allowed, attains 15 feet in height, but in Ceylon, plantations are all kept down to 3 or 3½ feet above the ground. This makes the shrub shoot out laterally and produce at least 25 per cent. more than it would do if permitted to attain its natural height and to occupy more land. In topping, care must be taken to cut off the uppermost pair of branches as their weight when in fruit would split the head of the stem. Nature is constantly throwing out young shoots, which try to grow upwards, but they must be carefully broken off as they are a great and useless drain on the juice of the plant. Never cut a sucker or branch off a tree, but always break it.

In the course of a few days the cherry passes from yellow to blood red and a great number of coolies must then be employed—for, once ripe the sooner it is plucked the better. On very high plantations, though the heaviest gatherings are in June and December, some fruit is arriving at maturity almost all the year round ; blossom, green and red berries, may frequently be seen on the same tree. This gives more trouble to the superintendent, but is better for the proprietor, who is not obliged to engage a large force of labourers when every one else wants them and when the labourer knows his own value. Where the crop extends over eight months of the year, the facilities for curing it are much greater and the cost of transport lighter.

When the quantity of coffee is small it is usually dried as plucked from the tree and the flavour is found superior to that which has been divested of its pulpy covering. But when the plantation is in full bearing, the extent of drying ground required, the length of time and the labour of moving so vast a weight, preclude the practicability of this plan. A pulping house must then be built: it should have a loft to receive the cherry and from which the machines are fed, a pulping room below where the mills are stationed, with a tank underneath. This building is all open, walls not being required.

The "pulper" is an oblong frame on four legs, furnished with a cylinder covered with copper which has been perforated by a triangular punch, from the side laid on the wood, leaving three-pointed asperities on the outside, like a nutmeg grater. In front of the grater is an iron bar or "chop," at a distance regulated according to the size of the bean, and a lower chop so nearly touching the copper that a sheet of letter paper may just pass through. A rotatory motion being given to the cylinder, the hopper above it being supplied with berries and a constant stream of water kept up, the teeth of the copper draw the berries against the chop and there not being space enough for them to pass between it and the cylinder, the pulp is torn off, carried between the lower chop and the barrel and passed away behind, whilst the beans are thrown out in front on a sieve, under the machine. The pulped coffee falls into a cistern below, and the "passed cherries," with a few stray husks, are returned to the copper.

The coffee is next thrown up together and allowed to remain heaped, until the gum is sufficiently fermented to be washed off, which is known by its feeling rough in the hand ; this will take from 12 to 36 hours according to the quantity heaped together and the temperature of the air; great care must be taken not to overheat it. Coolies must then dance amongst it for half an hour, and a stream of clean water being let in and the coffee agitated by rakes or machinery, all the gum and dirt will soon be carried away. The beans which rise to the surface of the water, being inferior and imperfect, must be floated off into another reservoir and separated. The store or warehouse may be constructed of any shape and materials, which circumstances or fancy dictates. It may be built of brick or timber and covered with tiles, felt or corrugated iron, but the most economical stores have the walls of jungle sticks and clay, are thatched with lemon-grass and have a loft or second floor in the slope of the roof, they are erected at a slight expense and answer every purpose. On some estates the pulping mills are turned by a water-wheel, which is a great saving of labour at the time when it is most in demand, but on the high hills, the cost of transporting heavy iron work is so great, the wages of good artificers so high, and the difficulty and delay in repairing any accidental damage so retarding to the other operations, that hand work is likely always to predominate.

Drying platforms, like the barbacue of the West Indies, are constructed of broken stones pounded together and glazed with a composition of mortar, fine sand, palm sugar (that from the palmyra being preferred) and bark juice, but as the cost is heavy, many planters prefer giving the ground a slope of 1 in 20, claying it and spreading matting to receive the coffee. Perhaps the best contrivance is a set of trays on wheels, fitting into a shed, one under the other, and which can be run in and out, on a tramway as the weather suits.

If coffee get two days' sun after washing, there is not much fear of its being injured by being kept long in store, indeed at this stage it is advisable not to expose it to the direct influence of the sun for nine or ten days, as the gradual drying causes the silver to separate itself from the bean and to hang on it like a bag. Coffee slowly dried will be easily divested of all the silver, and a clean sample insured, but, however ripe the cherry may have been when gathered, if the bean be hardened quickly, a portion of the pellicle will adhere, leaving a dirty sample and the impression on the buyer that it had been plucked half ripe. It is also thought that the quality of the article is improved by slow drying, or more properly speaking, that less of the aromatic principle is evolved. During rain, which is generally very abundant at fruit time, the wet coffee must be spread under cover, and constantly turned to prevent its heating, and even that which is partially dried should be worked over twice a day, as a very little moisture in a large heap soon causes germination to commence and gives to one end of the bean that peculiar red tinge, known as "foxy" in the London market.

Produce must be hard dried, until the grains resist the nail and are quite horny, before it is despatched to the coast; but in the parchment, the protection against moisture which this shell affords, more than counterbalances the cost of its transport. After its arrival in the seaport, no time should be lost in cleaning and shipping it, having been sunned, it is put in a circular trough and a heavy wooden wheel passed over it, until all the husks are broken; it is then fanned and agitated in a perforated cylinder, through which the small beans and broken pieces fall.

It must be packed in well-seasoned casks and shipped immediately, for if exposed to the saline damp, with which the atmosphere of a tropical shipping port is generally charged, it will soon attract so great a quantity of moisture as to turn flexible and black;—there are few simple vegetable products, dyes excepted, which owe so much to their colour as coffee does.

The first adventurers naturally selected their lands near a government road, and, in Ceylon, hill estates were not so much as dreamt of, until all the available low lands were bought up.

Ceylon is peculiarly adapted to the growth of coffee, being a mountainous island, with three sides open to a vast expanse of ocean, drought is little known; even in the dryest seasons the hills attract clouds, which frequently pour down refreshing showers. The heavy mists and dense clouds which sometimes shut out the sun for days together, or rolling sluggishly along the mountain sides, are amongst the planter's best auxiliaries. The shrub luxuriates in a rarified, temperate and moist climate, and delights in frequent but not heavy rains on the slopes, where there is a good natural drainage—for any lodgement of water about its roots soon proves fatal. In one instance the enterprizing but unfortunate proprietors believing it necessary to till the ground, went to work at a great expense, removed all the roots and ploughed up the land, but the result was a signal failure. Others left the largest forest trees standing for shade, but that has also been found injurious.

Manure.—One great error into which Ceylon speculators fell, was to expect that the land was so rich as to be able to keep the plants up to one uniform point of fruitfulness for fifteen or twenty years without manure. The richest mould cannot yield crop after crop for years, unless a proportionate return be made to it. Many tried decayed coffee pulp as a renovator, under the impression that by so doing they were placing in the ground what they wished to draw from it, but practice has too fully exploded the theory to leave any necessity for explaining its failing on scientific principles. At the same time it is equally certain that the coffee pulp in combination with other vegetable, animal and mineral matter, may form a valuable renovator of the soil. The skill of the chemist may be very advantageously brought to bear on this subject: he finds that the plant and its fruits are differently composed, he knows that it is more necessary to provide for the fruit than the stem which supports it; he finds that a large proportion of the bean is nitrogen, which his science teaches him may be produced by certain phosphates &c. under particular circumstances; the knowledge accumulated by his own and other men's researches point out at once where salts and gases may be found, and he works on a certainty. He can in a few days and at trifling cost produce what the uninitiated may spend a life-time and a fortune over without attaining.

The most soluble and the best portions of the soil are washed away by the rains; and this is a subject which equally deserves the attention of the planter with the manuring question.

Peeling, pulping, and winnowing.—The coffee peeler, used for separating the bean from the pellicle, was formerly a large wheel revolving in a trough, the disadvantage of which was the flattening more or less of the bean when not thoroughly dry. A machine was subsequently introduced, the invention of Mr. Nelson, C.E., of the Ceylon iron works, by which that evil was obviated: its principle being not weight, but simple friction, of sufficient force to break the parchment at first, and, when continued, to polish the bean free from the husk. A very simple winnowing machine for cleaning the coffee as it comes out of the peeler, is attached. From the winnowing machine it runs into the separating machine, which sorts it into sizes, and equalizes the samples, by which a vast amount of time and manual labour are saved. The same principle was intended to be applied by Mr. Nelson to pulping, to obviate the injury inflicted by the grater upon the fresh berry.

In spite of the greatest care, numbers of the beans in a sample, on close examination, will be found scratched or pricked; and when the closest attention is not paid, or the person superintending the process is devoid of mechanical skill, the injury is proportionate. The ordinary pulping mill in use, consists of a cylinder of wood or iron, covered with sheet brass, or copper, and punctured similarly to a nutmeg grater. This cylinder, technically called the barrel, runs upon a spindle, which turns a brass pick on each side of a frame. Immediately in a line with the centre upon which it turns, and placed vertical to each other, are two pieces of wood, frequently shod with iron or copper, called "the chops," placed about half an inch apart, or sufficient to allow the passage of "parchment" coffee between them. The lower chop is placed so close to the barrel, yet without contact, that all coffee must be stopped by it and thrown outwards. The upper chop is adjusted to that distance only which will permit the cherry coffee to come into contact with the barrel; but will not allow the berries to pass on till they have been denuded of their red epidermis by a gentle squeeze against its rough surface. The far greater portion of the pulps are separated by being carried past the lower chops upon the sharp points of the copper, and thrown out behind, and few are left with the parchment coffee. As from the different sizes of the berries, and their crowding for precedence as they descend from the hopper above to the gentle embrace of the barrel and upper chop, some pass unpulped, the coffee as it comes from the lower chop is made to fall upon a riddle, which separates the unpulped cherries. These are put back again, and passed through a pulper with the upper chop set closer. The secret of working appears to be the proper setting of the chops, and many have been the schemes proposed for reducing this to a certainty. Perhaps, after all, few plans are better than the old wedges, by tightening or loosening of which the chop is kept in the required position. After working it for some years, the machine was considerably improved by iron-cog-wheels being substituted in the place of straps and drums to move the riddle, and the riddle itself was formed of two sieves, by which the chance of unpulped berries reaching the parchment is lessened. On some estates water-wheels have been put up to drive several pulpers at one time, which otherwise would require from two to four men each to work them, but from the costly buildings and appurtenances which such machinery renders necessary, they are rare. Although the operation of pulping is so simple, it is one which requires the machine to be set in such a way that the greatest quantity of work may be done, or, in other words, the smallest quantity of unpulped berries be allowed to pass through. On the other hand, the berries must not be subjected to injury from the barrel; for if the parchment skin is pricked through, the berry will appear when cured, with an unsightly brown mark upon it. Several other coverings for barrels, as substitutes for punctured copper have been tried; among others, coir-cloth and wire-net, but the old material has not been superseded.

After pulping, the coffee in parchment is received into cisterns, in which it is, by washing, deprived of the mucilaginous matter that still adheres to it. Without this most necessary operation, the mucilage would ferment and expose the berry to injury from its highly corrosive qualities. As some portion of pulp finds its way with coffee to the cistern, which, if suffered to remain, would by its long retention of moisture, lengthen the subsequent drying process, various methods have been adopted to remove it. One mode is to pass the coffee a second time through a sieve worked by two men; another to pick it off the surfaces of the cistern, to which it naturally rises. In August 1846, premiums were awarded by the Ceylon Agricultural Society to Messrs. Clerihew and Josias Lambert for the improvements they had introduced into coffee-pulpers, which, by their exertions, had been brought to great perfection. This pulper is one of the most perfect in every respect that has yet been brought into use, the disadvantages belonging to the old machine having been entirely remedied. The sieve crank has a double eccentric action. The chops are regulated by set screws, and the sieve suspended in a novel and secure manner, the whole combining strength and efficacy, together with an elegance of form, which has likewise been appreciated. Mr. W. Clerihew, of Ceylon, submitted to the Great Exhibition a model of his approved apparatus for drying coffee, which has been patented in the name of Robert R. Banks, Great George Street, Westminster, and he received the Isis gold medal for the same. The intention is to dry the vegetable and aqueous moisture of the berry. Before this is required, the coffee has previously undergone the process of pulping, or removal from the soft fleshy husk. When the coffee berry is picked from the tree it bears a close resemblance to a ripe cherry, both in size and appearance: and several processes have to be gone through before the article known in commerce as coffee is produced. In the first place, the pulpy exterior of the cherry has to be removed by the process of pulping, which separates the seed and its thin covering called the parchment, from the husk: when the pulping process is completed, we have the parchment coffee by itself in a cistern, and the next process consists in getting rid of the mucilage with which it is covered." Having become assured, both by experiment and by Liebig's reasoning, that the successive stages of decomposition were wholly ascribable to the action of the stagnant air which occupies the interstices between the beans, and taking into account that a mass of coffee presented a medium pervious to air, it occurred to Mr. Clerihew that it was possible by means of fanners working on the exhausting principle, so to withdraw air from an enclosed space as to establish a current of air through masses of coffee spread on perforated floors forming the top and bottom of that space. The plan he carried into execution in 1849, and a stream of air was thrown through the mass of coffee, each bean of it became surrounded by a constantly renewed atmosphere of fresh air.

Greig's Pea-berry Machine consists of three long metal rollers, so placed beside each other, as to allow, in their revolution, the flat beans to fall between them while the Pea-berries pass along the surface of the rollers into a box. Those who prepare coffee for the European market, can by this machine meet the fancy for Pea-berry coffee without the tedious employment of hand labour. (*Madras Times, 19th January* 1859.)

Manuring.—There are many difficulties to surmount in manuring estates, owing to the localities of coffee plantations, though there can be no doubt that the returns obtained from manured plantations richly repay by a high standard of bearing. Cattle manuring is the most generally available; the cattle being stall-fed on guinea grass, planted where the elevation of the plantation will permit it, or on Mauritius grass, which is planted in the ravines amongst the coffee; thus at the same time yielding a profit, and keeping weeds out of places where they are apt to grow. Pigs are also kept, and the pulps of the coffee are added to the fertilizing mass; indeed, rotting wood, weeds, burned dolomite, and anything which will produce ammonia, should be taken care of on estates. Each laborer should take out a basketful as he goes to his work, which a few men are employed afterwards, with mamotics, or forks, in burying around the roots of the trees. The manuring of a whole estate at one time is seldom required, but every part of the plantation should be brought under its operation every second or third year. One estate, which was wholly manured without limit as to expense, has amply returned the outlay by a production of about 20 cwt. to the acre; lime, cattle manure, and mould from the neighbouring forest were used in a compost, and the soil turned up every where round the plant to apply it." (*Coffee Planting in Ceylon, p. 52.*)

Spacing out.—When cleared, the ground is marked out by a line and pegs, in squares of six feet every way, and at each peg a hole 48 inches cube is dug. These are filled up with surface soil, and when rain sets in the seedlings are transplanted from the nursery to them. This would give 1,210 trees per acre, but owing to the rocks, streams and paths, where plants cannot grow, the average is 1,000 per acre. There is difference of opinion as to the distance trees should be apart from each other from experiments and observation, six feet is the best,—if they are further off, they will not cover the ground, in which case both land is lost and weeds grow more easily, —if they be closer than six feet the plants are subject to breaking and injury, as their branches lock into each other and obstruct the workman's passage.

In Ceylon in the first instance, nothing is needed beyond felling and burning the forest trees, and planting the young coffee seedlings at regular intervals in spacious holes between the huge stumps left to rot in the ground. The first care requisite is to afford shade to the young plants; many consider that this shelter should be continued during the whole period of their culture, but this is somewhat doubtful, as it has been found that plants so protected are not such good bearers as those which are exposed. The best plants for providing shelter are tall, wide-branching trees or shrubs without much underwood. The other culture requisite is only to keep the ground tolerably clean from weeds, for which one cooly on from five to ten biggahs is sufficient. He should also prune off decayed or dead branches. This treatment must be continued until the fourth year, when the trees will first begin bearing, and, after the gathering of each crop, the trees will require to be thinned out from the superabundant branches, their extremities stopped, and the tops reduced to prevent their growing above seven or eight; the stems, also, should be kept free from shoots or suckers for the height of at least one foot, as well as clear from weeds. Irrigation must be frequent during the first year that the plants are removed to the plantation, and may be afterwards advantageously continued at intervals during the dry and hot weather, as a very hot season is found unfavorable to the plant, drying up and destroying the top branches and the extremities of the side shoots: whilst, on the other hand, a very long rain destroys the fruit by swelling it out and rotting it before it can be ripened: hence it is necessary to attend to a good drainage of the plantation, that no water be anywhere allowed to lodge, as certain loss will ensue, not only of the crop of the current year, but most frequently of the trees also, as their roots require to be rather dry than otherwise.

The coffee plant has many enemies in nature to contend with, and the following is a list by Mr. Nietner, of some of them in Ceylon.

1. Pseudococcus adonidum, White or Mealy Bug.

Parasites:

Scymnus rotundatus. Motch. Er. Ent. 1859.
Encyrtus Nietneri. Motch.
Chartocerus musciformis. Motch.
Acarus translucens. N.

2. Lecanium Coffeæ. Walk. List. Ins. B. M. Brown or Scaly Bug.

Parasites:

Scutellista cyanea. Motch.
Cephaleta purpureiventris. Motch.
„ brunneventris. Motch.
„ fusciventris. Motch. in lits.
Encyrtus paradisicus. Motch. in lits.
„ Nietneri. Motch.
Cirrhospilus coccivorus. Motch. in lits.
Marietta leopardina. M. in lits.
Chilocorus circumdatus. Schonh.
Acarus translucens. N.

3. Lecaninum nigrum. N. Black Bug.

4. { Syncladium Nietneri. Rabh. Dresd. Hedwig, 1858.
Trisposporium. Gardneri. Berk. J. Hort, Soc. Lond. 1849. }
A fungus.

5. Aphis Coffeæ. N. Coffee-Louse.

Parasites:

Syrphus Nietneri. Schiner in lits.
„ splendens. Dolesch.
Micromus australis. Hag. Verz. Wien. Z. 1858.

6. Strachia geometrica. Motch. in lits.

Lepidoptera.

7. Aloa lactinea. Cram. pap. ex.
8. Orgyia Ceylanica. N.
9. Euprocitis virguncula. Walk.
10. Trichia exigua. Feld. in lit.
11. Narosa conspersa. Walk.
12. Limacodes graciosa. Westw. Ent. cat.
13. Drepana ?
14. Zeuzera Coffeæ. N.
15. Agrotis segetum. Wien. V. Black Grub.
16. Galleriomorpha lichenoides. Feld. in lit.
17. Boarmia Ceylanica. Feld. in lit.
18. „ leucostigmaria. Feld. in lit.
19. Eupithecia coffearia. Feld. in lit.
20. Fortrix coffearia. Feld. in lit.
21. Gracilaria ? coffeifoliella. Motch.

Diptera.

22. Anthomyza ? coffeæ. N. in Motch.

Orthoptera.

23. Phymatea punctata. D.

Coleoptera.

24. Ancyloncycha *spec* ? (White Grub.)
25. Arhines ? destructor. N.

Aptera.

26. Acarus coffeæ. N.

Mammalia.

27. Golunda Ellioti. Gray in Kel. Prod (Coffee-rat.)

The "rat" does much mischief by gnawing off the young branches, apparently to get at the tender pith ; it is called "Daddawedda" by the Singalese, is as large as a weasel, and of a greyish-black colour. Monkeys, squirrels, and the rat commit great depredations in fruit time ; they are partial to the sweet pulp which they digest, but evacuate the beans whole.

The *Gardener's Chronicle* received from Mr. Thwaites a specimen of a minute fungus. A few trees were first noticed to be infected in May, but at the time of Mr. Thwaites' communication (July 24), two or three acres were showing the fungus upon the leaves. These latter fall off before their proper time. Amongst more than a thousand species of fungi received from Ceylon this does not occur : and it is not only quite new, but with difficulty referable to any recognised section of fungi. Indeed it seems just intermediate between true mould and Uredos, allied on the one hand to Trichobais, and on the other to Rhinotrichum. Though the fungus is developed from the parenchym of the leaf, there is not any covering to the little heaps such as is so obvious in Uredo and its immediate allies, while the mode of attachment reminds one of Rhinotrichum. We are obliged, therefore, to propose a new genus for its reception.

As the fungus is confined to the under surface of the leaves, and the mycelium is not superficial, it may be difficult to apply a remedy ; but we should be inclined to try sulphur by means of one of the instruments which are used in the hop grounds in Kent, or syringing with one of the sulphureous solutions which have have been recommended for the extirpation of the hop mildew.—*Rev. M. J. Berkeley.—Colombo Observer.*

The Coffee Bug, Lecanium coffeæ, *Walker,* establishes itself on the young shoots and buds, which it covers with a noisome incrustation of scales, enclosing its larvæ, from the pernicious influence of which the fruit shrivels and drops off. It is a Coccus, and a number of brownish wart-like bodies may be seen studding the young roots and occasionally the margins on the outside of the leaves. Each of these warts is a transformed female containing a large number of eggs (700), which are hatched within it. When the young ones come out of their nest, they may be observed running about on the plant, looking like wood-lice, but shortly after being hatched, the males seek the undersides of the leaves, while the females prefer the young shoots as their place of abode. The larvæ of the males undergo transformation into pupæ beneath their own skins, and their wings are horizontal, and their possession of wings may possibly explain the comparatively rare presence of the male on the bushes. The female retains her powers of locomotion until nearly of full size, and it is about this time that her impregnation takes place. The pest does not produce great injury until it has been two or three years on an estate, but at length the scales on the plants become numerous, the clusters of berries assume a black sooty look, and a great number of them fall off before they are mature. The young shoots have a disgusting look from the number of yellow pustular bodies forming on them, the leaves get shrivelled, and on many trees not a single berry forms. The coffee bug first appeared in 1843, on the Lupallu Galla estates, and it, or a closely allied species, has been observed on the Citrus acida, Psidium pomiferum, Myrtus Zeylanica, Rosa indica, Careya arborea, Vitex negundo and other plants, and most abundantly on the coffee bushes in moist places. It reappears though eradicated, and is easily conveyed on cloths from one place to another. Dr. Gardner, whom Sir J. E. Tennent quotes, is of opinion that all remedies have failed, and that it must wear itself out as other blights do.—*Sir J. Tennent's Celyon, Vol.* II. *p.* 248.

The Sydney "*Morning Herald*" describes an experiment on the Aphis or coffee moth which shows that by a very simple application, coffee plants may be freed from these destructive insects. A number of the insects were placed on a leaf under a powerful microscope. A drop of a simple solution of soda in water was let fall among them. They instantly left their hold on the leaf and fell dead. Such a solution could be applied without injury to coffee plants. Sulphur has hitherto been the favorite treatment.

In the southern parts of the peninsula of India, the Borer is a name given to the larvæ of coleopterous beetles which injure coffee trees. There are two, the white and red borer ; the chief of these is the Xylotrechus quadripes of Chevrolat. In Coorg coffee trees have also been injured by the rot, a disease resulting from improper pruning. The rot attacks and decays the centre of the stem. In Coorg, when the tree is attacked by the borer, the leaves become yellow and drop. The insects are generally about the diameter of a small quill, are always confined to the wood, and never enter the bark until the larva has done its work, passed through the pupa stage, and is about to escape in the form of a beetle. The eggs are deposited by the female near the root of the tree, and the pupa borers tunnel up the heart of the plant.

In 1859 60, the exports from the hill districts of Madras were from

		Quantity.	Value.
		lbs.	Rs.
Ports of	Malabar	7,351,926	7,35,177
	Canara	5,133,635	8,66,644
	Tinnevelly	233,693	23,387
	Madras	8,158,974	2,49,846
	lbs.	20,878,228	Rs. 1,875,054 £. 187,505

The produce of the various coffee-growing countries in the world was lately set down at the following figures :

SOUTH AND CENTRAL AMERICA.

	Millions of lbs.
Costa Rica...	9
La Guayra and Porto Cabello,...	35
Brazil,...	302
British West Indies, ...	8
French and Dutch West Indies,.	7
Cuba and Porto Rico,... ...	30
St. Domingo,...	33½
ASIA AND THE EAST.	
Java,...	140
The Philippine Isles,.. ...	3
Celebes,...	1½
Sumatra,...	5
Ceylon,...	34
Malabar and Mysore,... ...	20
Arabia (Mocha),...	3
	275,000 tons.

Mr. Fowler in his evidence before a Committee of the House of Commons gave 2,500 to 4,000 feet as the most favorable elevation for the growth of coffee.—*Nietner on the Enemies of the Coffee plant. Bidie on Coffee planting. Royle on the Productive Resources of India. Eng. Cyc. Simmond's Colonial Magazine Vol.* XV. *Journal India Archipelago. Vol.* iii. 1852. *Simmond's Commercial Products. Dr. Riddell, Dr. Mason. Bonynge's America, p.* 55. *Madras Exhibition Jury Reports. Cat. Exhibition of* 1862. *Hassal Food and its adulterations. Sir J. Tennent's Ceylon. Madras Times,* 19*th January* 1859. *Madras Statesman. Playfair's Aden. Bombay Standard, January* 1859. *Rev. M. J. Berkeley: Colombo Observer. Sydney Herald.*

COHAT, See Kohat, Kelat. p. 488.

COHUNE OIL, a product of the kernel of the "Attalea funifera," of Martius, a palm tree native of South America. It is something like the cocoanut, but is more oleaginous. Its introduction into Southern Asia merits attention. —*Seeman.*

COIA OR GOIA MARAM. TAM. Psidium pyriferum, also P. pomiferum, the Guava tree. Coia pallam, *Tam.* Fruit of Psidium pyriferum and P. pomiferum.

COILADDY, about a mile to the west of Coiladdy, is a mound that prevents the waters of the Caveri running into the Coleroon.—*Orme.*

COILGUDDY, a pagoda 8 miles east of Madura.

COIMBATORE, a collectorate of the Madras Presidency, in the south of the peninsula. Its chief town of the same name is in L. 11° 1' N. and L. 76° 58' E., and is 1482 feet above the sea, at the palace.

The district occupies an area of eight thousand four hundred and seventeen square miles ; over which some seven thousand villages and hamlets are spread, possessing a population of nearly a million and a quarter of human beings. It has but little rain, the chief source of water-supply appearing to be wells, but it nevertheless yields an annual revenue of upwards of twenty-two lakhs of rupees. The produce is grains, mostly of the dry description, cotton, sugar, tobacco and hemp. In addition to these, are the usual "Garden" condiments and vegetables. The climate is warm and not unfrequently oppressive. Being completely land, or more properly, hill locked, the district is only open to such streams of cool air from the sea board as can find their way to the vast plains of which it is composed through the gaps in the mountain chains. Fever prevails at certain seasons of the year, and cholera invariably makes its appearance after the rains. The aspect of the country is arid and unpleasant in the extreme, the few patches of green which are here and there produced by dint of hard labour, being the only refreshing objects presented to the eye. Its northern part, called Collegal, has numerous small jungle covered hills, and to the west of Collegal are the Neilgherry hills. The Anamallay hills are in the S. W. border of Coimbatore, and are richly clothed with valuable forests, with many elephants, and some of the lower hill ranges from the Neilgherries, between which is the valley and gap or Pass of Palghaut leading to the western coast. The Guzzlehutty pass leads up the deep valley separating the Neilgherry hills from Collegal. The Anamallay, (literally elephant hills), is a mountain tract covered by valuable forest trees, which about the year 1860 were worked with an annual profit of about Rs. 50,000, and there are many beautiful woods in it suited for turnery. The wild animals are the elephant, tiger, leopard, bear, hyena, wild dog, bison, sambur, spotted and barking and hog deer : also the wild goat. They are occupied by a race of hill-men, the Kader, open, independent, straightforward men, simple and obeying their mopens or chiefs implicitly. They are strong built, active, with woolly hair and something of the African features, and file their front teeth to a point. The women wear enormous circles of pith in the lobes of their ears, which they distend down to their shoulders. A black monkey is their greatest dainty.

The localities in Coimbatore, which supply the beryl, are also supposed to have yielded the emerald, though Tavernier was not able to ascertain that any part of India, in his day, was yielding emeralds. Tavernier (*Travels, p.* 144) says "as for emeralds, it is a vulgar error to say they came originally from the East. And therefore when jewellers and goldsmiths do prefer a deep coloured emerald inclining to black, tell ye, it is an oriental emerald, they speak that which is not true. I confess, I could never discover in what part of our continent those stones are found. But sure I am, that the eastern part of the world never produced any of those stones neither on the continent, nor in the islands. True it is, that since the discovery of America, some of those stones have been often brought rough from Peru to the Philippine Islands, whence they have been transported into Europe ; but this is not enough to make them oriental. Besides that, at this time they send them into Spain through the North Sea."—*Tavernier's Travels, p.* 144. *Lt. Col. Hamilton in literis.* See India, p 324, Korumbar, Narapati.

COINS. The coins current in British India, are the silver rupee of 180 grains, and its portions in half, quarter and eighth ; also the copper half anna and quarter anna. These alone are coined at the mints. In the Hyderabad state, there are several rupees, the Hali Sikka, and others, all of less weight than the rupee of British India, and many shapeless copper coins. In Oomraoti the bankers pass sealed bags of money. In the Hyderabad state the copper coins in use are shapeless lumps, with some obscure marks on them. In reality these copper coins are the chief part of the currency, the value of the several silver coins being various, and each varying daily in the exchange of the bazar. The reckoning is by four, which is called a "Ganda."

4 Cowries (Gavvalu,) 1 Ganda.

14, 16, or 18 Ganda 1 Thoodi or Pisa copper.

4 Thooddi or Dooddi 1 Ganda of coppers.

16 or 17 Copper Ganda 1 Rupee.

In Arabia and the Persian Gulf, the silver real and the copper falus are current, but the Indian rupee and the Spanish dollar also pass current. In the currency of Persia, when Mr. Fraser travelled, the coins chiefly used in circulation were the tomaun, ducat, rupee (or real), abbassee or shahee and falusiah. The exact value of these coins is disturbed by the state of exchange between India and Europe. The number of abbassee in a real differ in different provinces, but are in general from five to six, and there are about as many falusiah in each abbassee ; the abbassee is not current everywhere, it is of silver ; the latter are lumps of copper, heavy and shapeless, with a few letters stamped upon one side.

The following statement will shew the weight, fineness and stg. value of the coins formerly coined at the Calcutta mint reckoning the value of gold at £3-17-10½ per standard oz., and silver at 5s. 2d.

Coins.	Grains pure.	Grains alloy.	Grains Gross Weight	Value.
				£ s. d.
1d MohGour.....	187·651	17·059	204·710	1 13 2½·2225
Sicca Rupee.	175·923	15·993	191·916	0 2 0½·625
Furuckabad rupee	165·215	15·019	180 234	0 1 11½·825

These coins are not now current. In the Straits Settlements, the rupee is current, but there and throughout the Archipelago and the sea coast of China, the dollar is largely in use. The sole Chinese coin is of copper, and silver and gold are in China, sold by weight. —*Fraser's Journey into Khorasan, p.* 74.

COIR is the fibre from the rind of the cocoanut. Is a corruption either of the Maldive term Kaubar, or from the Tamil kayer, a rope. The Maldive Kaubar is the name given to the cords with which the inhabitants, according to Abul Fazl sewed together the planks of their ship. Mr. Faulkner says its Hindustani name in Bombay is "Katha." It is largely used in

India, and the exports during the year 1850-51 to 1860-61 were as under

	lbs.	Tons.	Value. £.
1850-51	7,846,720	3,503	21,644
1851-52	5,538,512	2,472	14,699
1852-53	6,511,344	2,907	17,300
1853 54	9,437,156	4.213	25,641
1854-55	8,078,560	3.606	27,638
1855-56	5,358,864	2,393	20.909
1856-57	8,293,712	3,703	25,828
1857-58	9,603.104	4,287	33,181
1858-59	10,250,800	4,575	36.435
1859-60	10,808,980	4.825	41,201
1860-61	13,064,660	5,832	57,284

This fibrous material appears in the market with various degrees of fineness. Such variety of appearance depends on the age at which the cocoanut is cut and the husk separated, and the care bestowed in steeping and cleaning. The husk or rind of the nut is thick and full of fibres, which in their separated state are well known by the names of coir or khair. In order to remove this husk, an iron spike or sharp piece of hard wood is fixed in the ground. The nut is then forced upon the point, which passes through the fibres, and thereby separates the rind from the shell. In this manner, a man can clear 1000 nuts daily. For the best coir, the outer rind of the nuts is bruised and steeped in water for two or three days, when it is taken up and the fibres separated by the fingers and scraped gently with a blunt knife, and dried in the sun. If steeped in water too long, they get dark coloured. Mr. Robinson, of the Madras Civil Service, in his report on the Laccadives, thus describes the method of making coir in those islands. As the husk, he says, gets hard and woody if the fruit be allowed to become quite ripe, the proper time for cutting it is about the tenth month. If cut before this, the coir is weak; if later, it becomes coarse and hard, and more difficult to twist, and requires to be longer in the soaking pit, and thus becomes darker in colour. When cut, the husk is severed from the nut and thrown into soaking pits. These, in some of the islands, are merely holes in the sand, just within the influence of the salt water. Here they lie buried for a year, and are kept down by heaps of stones thrown over them to protect them from the ripple. In others, the soaking pits are fresh-water tanks behind the crest of coral. In these, the water not being changed, becomes foul and dark coloured, which affects the colour of the coir. When thoroughly soaked the fibrous parts are easily separated from the woody by beating. If taken out of the pits too early, it is difficult to free the coir from impurities. If left in too long, the fibre is weakened, as is said to be the case also with that soaked in fresh water. The coir from the islands of Kadamat, Kiltan, and Chetlat, in the Laccadives, is said to be of the best description. The manufacture into cordage of the coir is entirely in the hands of the women of the Laccadives. When soaked sufficiently long, it is taken out of the pit and beaten with a heavy mallet. Subsequently, it is said to be rubbed with the hands until all the interstitial cellular substance is separated from the fibrous portion. When quite clean it is arranged into a loose roving, preparatory to being twisted, which is done between the palms of the hands in a very ingenious way, so as to produce a yarn of two strands at once. No mechanical aid, even of the rudest description, has yet found its way into these inlands. In these islands, coir is one of the chief commodities of barter for the necessaries of life, as rice, salt, tobacco, &c. The coir is made up for their petty traffic in short *kute* of a mixed length and weight, and at the end of the year these are collected and made up into lengths of 70 to 75 fathoms, as received by the Government. The difference in the quantity of coir manufactured from the coast nut and from an island nut is very considerable. We may mention that forty cocoanuts are said to yield 6 lb. of coir in Ceylon. Mr. Robinson says: "Three large coast nuts will yield 1 lb. of coir, measuring twenty-two fathoms: whereas ten small, fine island nuts go to about 1 lb. of coir; but this will measure thirty-five fathoms. 2 lb. of such yarn, measuring from 70 to 75 fathoms, are made up into sootie, of which there are fourteen to a bundle, averaging about a maund of 28 lb. A Mangalore candy of 560 lb. will thus be the produce of 5600 nuts, and should contain about 20.000 fathoms of yarn. The actual price of coir received by the islanders, is about thirteen rupees per candy. The value of the coir produce of a tree is calculated to be from two to two and a half annas; and that of the produce of one hundred trees, from fourteen to fifteen rupees. The average value of the total raw produce of a tree bearing fruit, would then be seven annas to a half rupee; and that of a plot of one hundred trees, forty-five rupees. Different modes are practised in Ceylon. At Calpentyra and the Akkara-pattooo, the natives separate the coir by burying the husks along the border of the extensive salt-water lake, and when, after six months or more, they are dug out very clean, the fibres easily separate from the cellular tissue of the husk. This mode of preparing the fibre prevents the offensive smell emanated by macerating the husk, so common along the road from Colombo to Matura."

China imports coir from Haman and the Archipelago. The great use to which coir is put is for cordage, both ropes and cables, for boats and ships, for which from its lightness it is well suited. It is largely used by upholsterers as a material for stuffing mattrasses, couches, pillows ; it is used as a substitute for oakum in caulking ships. The fibre is also made into brushes and brooms, as a substitute for bristles, is cleaned, curled and dyed to resemble horsehair, and made into matting, door mats, and netting for sheepfolds, woven into stair carpets and floor matting, bonnets, hats,—*Lond. Exh. of* 1862, *Royle Fib. Pl. Robinson's Report on the Laccadives. Hon'ble Mr. Morrison.* (*Ondatjee*).

COIX, a genus of plants belonging to the order Panicaceæ. Several species are known in India, aquatica, barbata, gigantea, heteroclita, lacrima pumila. The following are. Burmese names for species :

ka le pouk pouk.
ka lo hmeu.
ka le shee.
ka le theing.
ben wai thoo.

COIX BARBATA. Roxb.

Adavi godhumulu	Tel.	Golive	Tel.
Gila gaddi	„	Kokilakshamu	„
Goh midi	„	Korimidi	„

Grows in India.

COIX LACRIMA. Linn.

Ka-le-thee	Burm.	Coix millet	Eng.
Job's tears	Eng.		

The Burmese species of Coix, Job's tears, has large esculent seeds which are parched, like Indian corn in America, and they are often for sale in the Tenasserim bazar. It is extensively cultivated in the South of China, for weaving floor matting of various degrees of fineness, the coarser kinds of which are used also to construct sheds to screen workmen when building houses and even the walls of the huts tenanted by the poor ; the best comes from Lientan, west of Canton. No grasses are cultivated in China for food for animals, but the country produces many species fitted for rearing flocks and herds. A great deal of Coix (Job's tears) is cultivated in the Khassia Hills about Moflong : it is of a dull greenish purple, and though planted in drills, and carefully hoed and weeded, is a very ragged crop. The shell of the cultivated sort is soft, and the kernel is sweet ; whereas the wild Coix is so hard that it cannot be broken by the teeth. Each plant branches two or three times from the base, and from seven to nine plants grow in each square yard of soil : the produce is small, not above thirty or forty fold.—*Hooker Him. Jour., Vol.* II. *page* 289, *Mason. Williams' Middle Kingdom page* 277.

COIX MILLET. Coix lacrima.

COJIA, also written Khojah, Cojah. See Khajah.

COJLA-JAMUN-KA-PHAL. Duk. Calyptranthes caryophyllifolia.

COLABA, an island in lat. 18° 37′ N., long. 72° 51′ E. 7 miles from Kundaree Island. In the spacious harbour formed by the islands of Caranja, Colaba, Bombay, Salsette, and the continent, several smaller rocky islands are scattered, bearing different names. Of these are Bombay, Elephanta, and a little island close to the latter that Europeans call Butcher island, but known to the people as Depideva, the island of the gods.—See Butcher island.

COLA-MAVA. Tam. Anacardium occidentale.

COLAPORE, a small territory in the Concan, and the name of its chief town ; is ruled by a feudatory rajah. The territory has an area of 3184 square miles, with a population of 546,156, and a revenue of £100,000. See Kolapore.

COLAPTES. See Picidæ.

COLAR LAKE, a marine lagoon of great extent, in the Masulipatam district, lying between Ellore and the sea. It is called the Colar Lake, but is one of the marine lagoons known in India as backwaters, which stretch around the peninsula of India, one of these, north of Madras is called the Ennore Lake, and there are several south of Madras and on the Malabar coast. See Lake.

COLBERTIA COROMANDELIANA. D. C. syn. of Dillenia pentagyna, *Roxb.*

COLCHICUM, a genus of plants of the nat. ord. Melanthaceæ, more than one species of which grow in Central Asia. The medicinal substance known as Aruntuta, is the inspissated juice of a bulbous plant, supposed to be a species of Colchicum. It is sold at a high price, and is much sought after by the people of the Hazarajat, in Central Asia, being of high repute in diseases of the eye. It is sold in small pieces of a dark colour, but is indiscriminately applied and must often act injuriously. Dr. Stewart changes this into "Harun-tutiya." Honigberger states this is from Agathotes Chiretta. Dr. Stewart gives "Ba-phola," and Baphor as the vernacular names of another species of the Salt Range, the seeds of which are he says called "is-af-gol" which seems the ordinary Plantago.—*Mason's Journey, Vol.* ii. *p.* 338. *Dr. Stewart. Honigberger.*

COLCHICUM AUTUMNALE. LINN.

Suranjan	ARAB.	Kuljikoon,	GR, of ARABS.
Meadow Saffron	ENG.	Suranjan-talk	HIND. PERS.

This plant grows in temperate northern climates. The Colchicum of medicine is the cormus and seeds of Colchicum autumnale-*Linn.* which is well described by Dioscorides, It was used by the Arabs, and is their *sorinjan*; they give *kuljikoon* as its Greek name. The Hermodactyls of the later Greeks and Arabs, and the sweet and bitter *sorinjan* of the Arabs, were no doubt species of this genus. Dr. Royle's specimens have been described by Dr. Pereira. A tincture of hermodactyl is prepared by taking Hermodactyl (*soorinjan tulk*) powdered five ounces, proof spirit two pints; and in use and dose is the same as that of the Colchicum tincture, for which on emergency this may be substituted.—*O'Shaughnessy. Royle, p.* 601.

COLDENIA PROCUMBENS. LINN; *Roxb.*

Tripunkhi	HIND.	Hamsa padu	TEL.
Siru Padi	TAM.	Hama padi	„

A small plant growing in Southern India, used as a poultice fresh, also, when dried in powder with fenugreek seeds is used to promote suppuration in boils.

COLE, H. T. of the Bengal C. S., one of the founders of the Bengal Asiatic Society and author of many the most valuable contributions to its Transactions; after Sir W. Jones, one of the most eminent Orientalists of his time *Ob.* 1837. He wrote on the duties of the Hindoo widow. As. Res. Vol. IV. 205.—Enumeration of classes or tribes of Natives of India. Ibid, Vol. V. 53.—On Indian weights and measures. Ibid, 91.—Translation of Delhi inscription. Ibid, Vol. VII. 175.—On Hindoo religious ceremonies. Ibid, Vol. V. 345; VII. 235, 288.—On the Sanskrit and Prakrit languages. Ibid, Vol. VII. 199.—On the origin of some Mahomedan sects. Ibid, 338,—Description of Os-Hamed Gayal. Ibid, Vol. VIII. 487.—On the Vedas, or sacred writings of the Hindoos. Ibid, 369.—Observations on the Jains. Ibid, Vol. IX. 287.—On the Indian and Arabian Zodiac. Ibid, 323.—On olibanum, or frankincense. Ibid, 377.—On ancient monuments, containing Sanskrit inscriptions. Ibid, 398. On the sources of the Ganges. Ibid, 429.—On the notions of the Hindoo astronomers, Ibid, Vol. XII, 209.—On the heighths of the Himalaya mountains. Ibid. 251.—On the Dryobalanops camphora. Ibid, 535.—Miscellaneous papers. I. Vol. 800.

COLE, Robert, of the Medical Department of the Madras Army, in which he rose to the rank of Inspector General. He was Secretary to the Madras Literary Society. He wrote on the laterite formation, and laterite of the Red Hills, in the Madras Lit. Trans., Vol. IV, 100. On mounds of scoriaceous ashes near Bellary. Ibid, Vol. VII, 130.—*Obiit.* 1868.

COLE, Captain Robert, a military officer of the Madras Army, eldest son of the above Dr. Robert Cole, author of an elementary grammar of the Coorg language.

COLEBROOKE, H. T., was the first to give a tolerable sketch of the character and contents of the Vedas, in 1805, and in 1823-1827 he expounded the principles of the different systems of hindu philosophy. He was author of several memoirs on plants, published in the Linnæan Society's Transactions and in the Asiatic Researches.

COLEBROOKIA OPPOSITIFOLIA. Pansra. HIND.

A large shrub of the Sewalik hills; wood used as fuel, also to make gunpowder charcoal, and the leaves as fodder for cattle, and are applied to wounds and bruises.

COLEHAN, a part of Singbhum occupied by the Ho as their proper country. The Colehan is divided into Pirhi or districts, each under a manki or chief, and each village has its Mundah or headman.—*Dalton, p.* 163. See India; Kol; Singbum.

COLEOPTERA, a name first applied by Aristotle ('Anim.' i. &c.), and now universally adopted, to designate one of the orders in which Insects are divided, the species of which are commonly known by the name of Beetles, the "Chargol" of the Hebrews. The *Coleoptera* have usually four wings, of which the two superior, termed elytra, are not suited to flight, but for a covering and protection to the two inferior. They are of a hard and horny or parchment like nature, and when closed their inner margins which are straight, touch and form a longitudinal suture; the inferior wings, when not in use, are folded transversely under the superior and are membranous. From this character of having the wings in a sheath, the term *Coleoptera* was applied, it being composed of the two Greek words κολεός a sheath, and πτερά wings. The superior wings, which form a sheath, are generally called elytra. In about two months in 1854, Mr. Wallace collected 700 species of beetles in Singapore; a large portion of which were quite new, and among them 130 distinct kinds of elegant longicorns.—(*Wallace.*) But though very numerous in some parts of tropical Asia, in others, as in one part of Dr. Hooker's Travels, they are most rare, and (what is remarkable) the wood-borers (*Longicornis* and *Curculio*) particularly so. A large

Telephora was very common.—*Hooker. Him. Jour. Vol.* II. *p.* 65. The prevailing character of Indian entomology is uniformity. We meet with numerous genera, both of tropical and temperate climes, associated together; the former more abundant, the latter less frequent than in the Himalayas. There is, however, a greater intermingling of forms, many of the species resembling those of Europe, may have been captured on the mountain ranges, at a considerable elevation; but in the heated valleys of the East, we find many European types and species, in numbers sufficient to excite our astonishment. It will appear, then, that many species taken in temperate and northern climes, are not confined to them, and the range they enjoy is very considerable, extending not only over the Old World, but also to the New. As we advance from the poles to the equator, vegetation is more luxuriant, in proportion as heat increases, and the quality of work assigned to the insect races is proportionately increased. It is not natural to imagine that the functions performed by them in a colder climate, would in a warmer one require increased exertion and capabilities? It does not follow, because we find new types of form in tropical countries and new genera of superior bulk and power, and more abundant in individuals, that therefore they necessarily replace the old ones, and are to perform the duties peculiar to both regions; both may live and thrive together, and abound in the same countries, and will eventually be found to do so. When the genera of temperate climes appear within the tropics, they may have the same functions assigned them there, as in colder latitudes, but when we find new types of form, and a more powerful organization, with the size of the insects greatly increased (as is the case in tropical regions), it almost naturally follows that they are intended solely for those regions, and for the increase of work they are there destined to perform? Uniformity of entomological character throughout the peninsula and the East, is probably in a great measure to be accounted for by the general uniformity of its temperature, vegetation, and soil; there may, indeed, be other causes, which particularly influence it, but these may be esteemed the most essential. The range which genera here enjoy, is very considerable: in part of the Himalayas, at the extreme southern points of India, in the West, and even in its Eastern Isles, there is one prevailing character, evincing every where the prevalence of tropical genera. In Nepal and the southernmost extremity of Mysore, and in Ceylon, at Bombay, and at Madras, at Calcutta and Singapore, in Japan and Java, with the rest of the Polynesian Isles, the majority of the same types abound; and a great majority of the same species also occur in most of the abovementioned regions. If we turn our eyes to Africa, we shall there find a considerable similarity in the entomology of this quarter of the globe with that of Asia. Among the Carabidæ occur Anthia, Orthogonius, Trigonodactyla, and Siagona. Among the Lamellicornes, Epirinus and Popillia, the conical Buprestidæ and the extraordinary Paussidæ, which last are chiefly found only in these regions; and to these may be added the genera Melyris, Megalopus, Sagra, and Adorium; Dorylus, among the Hymenoptera, and Diopsis among the Diptera as well as many more. Passing from genera to species, we shall find that precisely the same occur in both continents; among the most conspicuous, are Copris midas, Sabæus, and Pithecius, Cetonia cornuta, and Lytta gigas. One example is Ateuchus sanctus, which very closely resembles the celebrated Sacred Beetle of the Egyptians, the object of their worship, regarded by some as an emblem of fertility, but more probably that of eternity. The beautiful wing cases or elytræ of the Buprestris, order 1st Coleoptera, are of a brilliant metallic green colour, and are imported into Great Britain principally from Calcutta, as ornaments of khus-khus fans, baskets, &c., and on muslins to enrich the embroidery. The beetle's wings sent from Burmah and Akyab were called "Chenk Poorie" and "Thungon Poorie." The blistering beetles of India are several species of Mylabris. The market value in Britain is only 5*s.* 8*d.* the pound.

Westwood gives the following classification:—

I. ORDER. COLEOPTERA.
Sec. I. Pentamera.
Geodephagous Adephaga.
FAM. Cicendelidæ.
,, Carabidæ.
Hydradephagous Adephaga.
FAM. Dyticidæ.
,, Gyrinidæ.
Phylhydridous Rypophaga.
FAM. Heteroceridæ.
Parnidæ.
Helophoridæ.
Hydrophilidæ.
Sphæridiidæ.
Agathidiidiidæ.
Necrophagous Rypophaga.
FAM. Scaphidiidæ.
Silphidæ.
Nitidulidæ.
Engidæ.
Sub-Family. Trogostides.
,, Cucujides.
Brachelytrous Rypophaga.
FAM. Staphylinidæ.
Sub-Family. Pselaphides.

Clavicornes.
FAM. Byrrhidæ.
,, Histeridæ.
Lamellicornes.
FAM. Lucanidæ.
Petalocera.
FAM. Geotrupidæ.
,, Scarabæidæ.
,, Aphodiidæ.
,, Trogidæ.
,, Dynastidæ.
,, Rutelidæ.
,, Anoplognathidæ.
,, Melolonthidæ.
,, Glaphyridæ.
,, Cetoniidæ.
Serricornes.
FAM. Buprestidæ.
,, Eucnemidæ.
,, Elateridæ.
,, Cebrionidæ.
,, Cyphonidæ.
,, Lampyridæ.
,, Telephoridæ.
,, Melyridæ.
,, Cleridæ.
,, Ptinidæ.
,, Lymexylonidæ.
,, Bostrichidæ.
,, Scydmænidæ.
Heteromerous Coleoptera.
Trachelia.
FAM. Notoxidæ.
,, Pyrochoridæ.
,, Lagriidæ.
,, Horiidæ.
,, Mordellidæ.
,, Cantharidæ.
,, Salpingidæ.
,, Œdemeridæ.
,, Melandryidæ.
Atrachelia.
FAM. Cistelidæ.
,, Helopidæ.
Cossyphides.
FAM. Diaperidæ.
,, Tenebrionidæ.
,, Blapsidæ.
,, Pimeliidæ.
Pseudotetramerous Coleoptera.
Rhyncophora.
FAM. Bruchidæ.
,, Attelabidæ.
,, Curculionidæ.
,, Scolytidæ.
Longicornes.
FAM Prionidæ.
,, Cerambycidæ.
,, Lepturidæ.
Phytophaga.
FAM. Crioceridæ.
,, Cassididæ.
,, Galerucidæ.
,, Chrysomelidæ.
Pseudotremerous Coleoptera.
FAM. Erotylidæ.
,, Endomychidæ.
,, Coccinelidæ.

Ateuchus sacer.—The sacred beetle of the Egyptians, is found in Egypt and Western Asia.

The Lampyrides.—A tribe of the Malacodermous Coleoptera, including the glow-worm and fire-fly.

Fire-fly is the name given to species of Elater and Lampyris, of the order Coleoptera, and to the Fulgora of the tropics. F. laternaria is of South America, F. candelaria of S. E Asia. The latter resort to moist places. The Lampyris Fire fly is the Mouche lumineuse of the French. The Romans styled the luminous insects by the common names noctiluca, and luciola.

Scarabæus atlas is a native of Java, is one of the Prionidæ.

Therates is a genus of Coleoptera, of the tribe Cicindelidæ, confined to South Eastern Asia.

The Dytiscus griseus, one of the aquatic Coleoptera, is found in Europe and in Bengal.

Chinese insects were described as far back as the times of Fabricius and of Donovan in 1798; with this exception, there were very scanty notices of other Chinese insects (consult Dejean's catalogues of Coleoptera) until Mr. Hope, in March 1842, published half a century of the Coleoptera of Canton and Chusan, collected by Dr. Cantor. Part of Mr. Bowring's Coleoptera and Homoptera of Hong-Kong and neighbourhood were published in the Annals of Natural History, Vol. IV, December 1844, by Mr. Adam White. The rarer species of the carabideous genera, frequent marshy localities or the summits of mountains. Several fine species were there captured in tolerable abundance; a fine Galerita, several Chlænii, three species of Hellus, Panagœus, several large Pherosophi (Brachinidæ), a Clivina, Dyschirius, Casnonia, and Arga or Leptotracheilus. The beetles belonging to Badister, the Amaræ and Harpalidæ are of small size. The largest carabideous form has much the appearance of Omaseus. It is thirteen lines long. Including the tiger beetles and their allies with carabideous beetles, Hong Kong cannot produce much under 760 species. The carabideous genera are the most abundant of all the insect tribes during winter in Hong Kong, some forms commencing to appear with autumn. In April they are very abundant, and there are still found a few in May. They then, however, give place to the cicindelidæ, none of which are found here during winter. Of Cicindela, Mr. Bowring mentions ten species; Colliuris longicollis is found on the flowers of Bauhinia Vahlii (?) W. and A. Tricondyla pulchripes (White) on Litchee Trees, differing in habit from its congeners by being found on trees, not at their roots. It is apterous, like other species. A small species of Lebia and of Brachinus is found on flowers. Scarites has not hitherto been found in the Island, and Calosoma and Carabus proper are probably confined to Northern China. Water beetles are abundant in pools during the spring months, and comprise genera from the giant Trochalus to the more minute but still interesting forms. At the same season Coprophagous insects are abundant. Onthophagi, armed cap-a-pie, yielding in interest to few of the Indian species, and so numerous that fifty species on an estimate were no exaggeration. Copris, Onitis, Hister and Aphodius, as might be expected, and perhaps the largest known species of Sisyphus on record—the S. Bowringii (White), remarkable for the extraordinary spinal projections from its coxæ. Similar spines occur in S. senegalensis. The Brachelytreous genera are far from abundant, and the forms small; one of the largest is a small Emus, 6 lines long. Of other families of insects, the mass are found at the commencement of summer and during the summer rains, between April and August. Disselicus Cantori is found in Hong-Kong as well as in Chusan. There are many interesting species belonging to the Melolonthideous or Cetonideous genera, and those soft-bodied insects, amongst which Lampyris, Cebrio, Malachius, &c. are classed. An Atractocerus is of very rare occurrence. Elateridæ and Buprestidæ not very abundant. Dorcus on the mountain range above Victoria in June. Passalus genus abounds over India and the Archipelago. The Mylabridæ few in species, abound in numbers. The Heteromerous genera tolerably numerous, but principally found under stones on hills; not on the sea-shore as in the Mediterranean. Cossyphus has not been found. The Helopidæ which devour Agarics under bark are scarce, for trees are restricted to a few ravines in Hong-Kong. Notwithstanding this there are numerous forms of the Longicorni and Curculionidæ, found on bushes if trees are wanting. A true species of Tetraglenes (a Manilla genus) with the four eyes quite distinct. To one of the families which bring up the rear of the Coleoptera, belongs Sagra purpurea, found on Euphorbia antiquorum as S. lugubris in Ceylon, is found on the castor oil plant—Donacia have been found in Ceylon at Point de Galle, Limnanthemum Wightianum which grows in tanks, is devoured by a Carabideous larva. There are in Hong-Kong many interesting species of Galeruca, Crioceridæ, Clythridæ, the pretty Platycoryne bifasciatus, Tortoise Beetles, and some of our early favorites, the Vaches a Dieu, one of which is a very large sized species. Three new species of Paussus were found under stones, and in the nest of a small yellow ant, all these had reached the highest elevation to be found in this island, upwards of seventeen hundred feet. The three species all crepitate, and at least one of them has a discharge staining like that of a Brachinus. Coccoideous parasites are found on the Dragon fly and on the common Fulgora candelaria, an inhabitant, but not illuminator, of the Pumplemos trees. Out of the six hundred species of Chinese Coleoptera, which have been collected, at least five hundred require careful search amongst flowers, or under stones or other localities. Hong Kong is chiefly Indian in its forms, but the capture of so many carabideous genera leads to the supposition that northern China, where a true carabus is found, must contain some interesting beetles approaching to the European forms. In vain do we look on the sea shore of China for the Scaritidæ and Pimeliæ so abundant in the Mediterranean. The cold season is in no country very productive of insects; that of Hong Kong produces numerous species of the only ones likely to be found during that season of the year—the Carabideous forms, whilst the China Pine, Dog violet, Azalea and Honeysuckle are in blossom.—(*Captain Champion in Journ. B. As. Soc. August* 1848, *No.* CXCIV.)

Cicindelidæ.—The following genera belonging to this family are not uncommon in India, *viz.*, Therates, Tricondyla, and Colliuris: the two former are characteristic of a southern range, while the latter is abundant throughout the eastern continent. Of Indian Cicindelidæ, more than sixty species have been observed; the most splendid of the race abound in Nepal. Among various species, however, peculiar to the Himalaya, only one approaches the form of our European Germanica.

In Ceylon the recorded species of Cicindelidæ inhabit the plains or the coast country of Ceylon, and several of them are also found on continental India. Many of the species of Carabidæ and of Staphylinidæ have much resemblance to the insects of these two families in north Europe. In the Scydmænidæ, Ptiliadæ, Phalacridæ, Nitidulidæ, Colydiadæ, and Lathridiadæ, the northern form is still more striking, and strongly contrasts with the tropical forms of the gigantic Copridæ, Buprestidæ, and Cerambycidæ, and with the Elateridæ, Lampyridæ, Tenebriondæ, Helopidæ, Meloidæ, Curculiondæ, Prionidæ, Cerambycidæ, Lamiidæ, Endomychidæ. The Copridæ, Dynsatidæ, Melolonthidæ, Cetonidæ, and Passalidæ are well represented on the plains and on the coast, and the species are mostly of a tropical character. The Hydrophilidæ have a more northern aspect, as is generally the case with aquatic species. The order Strepsiptera is considered as belonging to the Mordellidæ, and is represented by the genus Myrmecolax, which is peculiar, as yet, to Ceylon. In the Curculionidæ, the single species of Apion will recall to mind the great abundance of that genus in North Europe. —(*Tennent's Sketches of the Nat. Hist. of Ceylon*, p. 443-444.)

Mr. Westwood in his Oriental Entomology, gives the following as the more remarkable of the Indian Coleoptera.

Sec. Lamellicornia.

Encheirus (cheirotonus) MacLeaii. *Westw.* Assam, Himalaya.
„ Dupontianus. *Burmeister.* Philippines.
Dynastes Hardwicki. *Hope.* Nepal.
Jumnos Ruckeri. *Saunders.* Himalaya.
Heterorhina nigritarsis. *Hope.* India generally
„ anthracina, *Westw.* Upper India.
„ amœna, Assam.
„ bengalensis, Bengal.
„ bicornis, Timor.
„ biguttata, Philippines.
„ bimacula, Bengal.
„ childrenii, „
„ confusa, Java.
„ cuvera, Bombay.
„ decora, Java.
„ dives, East Indies ?
„ elegans, Central India.
„ glaberrima, East Indies.
„ hopei, Nepal.
„ jucunda, China, Africa.
„ læta, Java, Sylhet.
„ nigritarsis, Nepaul.
„ ornata, Mysore.
„ olivacea, India.
„ petelei, East.
„ punctatissima, Assam, Sylhet.
„ tibialis, E. Indies, Assam.
Bombodes ursus, *Westw.* Himalaya.
Peperonota harringtonii, *Westw.* Himalaya.
Parastasia rufopicta, *Westw.* Assam, Sylhet.

Fam. Lucanidæ.

Lucanus dux, *Westw.* Manilla.
„ platycephalus, *Hope.* Assam, Khassya.
„ multidentatus. *Westw.* E. Indies.
„ inquinatus, *Westw.* India.
„ strigiceps, *Westw.* Himalaya.
„ Mearseii, *Hope.* Sylhet.
„ rangifer, *Schonherr.* Borneo.
de Haavii, *Westw.*
Syn. tarandus, *Swed.*
metallifer. *Bdv.*
„ Jenkinsii, *Westw.* Assam.
„ occipetalis, *Hope.* Philippines.
„ æratus, *Hope.* Tenasserim, Penang.
„ castanopterus, *Hope.* Nepaul.
„ bicolor, *Oliv.* Nepaul, Malay, Penang.
Lucanus gazella Fabricius, Siam.
„ *Var.* *a.* delessertii, *Guer.*
„ *b* cuvera, *Hope.*
„ *c.* prinsepii, *Hope.*
„ *d.* bicolor, *Saunders.*
„ *e.* saundersii, *Hope.*
„ *f.* Burmeisteri, *Hope.*
„ *g.* sinensis.

Fam. Elateridæ.

Camposternus templetonii, *Westw.* Ceylon.
„ dohrnii, *Westw.* Assam.
„ stephensii, *Hope.* Nepaul.
„ hopei, *Westw.* Tenasserim.
Oxynopterus cumingii, *Hope.* Philippines.
Pectocera Mellii, *Hope.* Simla, Tibet.
Alaus mœrens, *Westw.* India.
„ sculptus, *Westw.* Khassya, Hills.
„ sordidus, *Westw.* Ceylon.

Fam. Eucnemidæ.

Galbella violacea, *Westw.* E. Indies.

Fam. Telephoridæ.

Ichthyurus lateralis, *Westw.* Java.
„ costalis, *Westw.* Moulmein.
„ basalis, *Westw.* Moulmein.

Fam. Passidæ.

Paussus Jerdoni, Hope, East Indies.
„ boysii „
„ cognatus „
„ denticulatus „
„ fichtelii „
„ fulvus „
„ Hardwickii „
„ Hearseanus „
„ Jousselini „
„ pilicornis „
„ Saundersii „
„ Stevensianus „
„ thoracicus „
„ tibialis Bengal
Merismoderus Bensonii, *Westw.* Cawnpore, Saharunpore.

Fam. Engidæ.

Prionophora cylindrica, *Westw.* India.
Petalophora castata, *Westw.* Java.
Helota mellii, *Westw.* Simla, Tibet.

Fam. Silphidæ.

Apatetica lebidides, *Westw.* Himalaya

Fam. Brenthides.

Arhenodes xiphias, *Westw.* Penang.
Teramocerus erythroderes, *Chevr. Sch.* Philippines.
Diuris forcipatus, *Westw.* Penang.
Caledromus mellii, *Guerin* Philippines.
Taphroderes Whitii, *Westw.* Philippines.

Sec. Longicornes.

Fam. Trictenotomidæ.

Trictenotoma childrenii, *Gray.* India.
„ templetonii, *Westw.* Ceylon.
„ ænea, *Parry.* Himalaya.
Hammaticherus marmoratus, *Melly.* Himalaya.

Phryneta margaratifera, *Melly.* Nepaul.

Gnoma plumigera, *Melly.* Java.

Monohammus punctulatus, *Melly.* Himalaya.

„ bifasciatus 29, *Melly.* Himalaya.

„ Westwoodii, *Melly.* Himalaya.

Fam. Cerambycidæ.

Cerambyx telephoroides, *Westw.* Ceylon.

Purpuricenus 10 punctatus, *Westw.* Assam.

„ 9 „ *Westw.* Java.

Abryna eximia, *Newm.* Manilla.

Doliops geometrica, *Waterhouse.* Manilla.

„ cuculionoides Philippines.

Anopiophora lucipor, *Newm.* Manilla.

Pachyteria dimidiata, *Westw.* Assam.

Saperda bicolor, *Westw.* Assam.

J. E. R. Hope, M. L. S. J. Westwood in M. L. S. Journal. Sir J. E. Tennent Nat. Hist. of Ceylon. Wallace's Archi. Captain Chapman in Beng. As. Soc. Journ.

COLEROON, a river on the Coromandel coast, in lat. 11° 22′ N., which has within its entrance a small island, with the fort of Devicotta. Inland are situated four remarkable buildings called the Challambaram pagodas. —*Horsburgh.*

COLEUS AMBOINICUSO. LOUR.

C. crassifolius	*Benth.*	Plectranthus aromaticus	*Roxb.*
C. aromaticus	,,		
Pathur Chur	BENG.	Karpura Valli	TEL.
Country Borage	ENG.		

A delightfully fragrant plant of the Peninsula of India, and grown in gardens. Its leaves are eaten with bread and butter, or bruised and mixed with food, drink or medicine.—*Voigt.*

COLEUS BARBATUS. BENTH.

Plectranthus barbatus	*Andr. Bot. Roep.*	P. asper.	*Spreng.*
P. Forskahlii.	*Willd.*	P. monodelphus.	*Roxb.*
P. comosus.	*Sims.*	Orenium asperum.	

A shruby plant, with a strong but not disagreeable smell. The roots are pickled. It is cultivated in gardens, grows all over India.—*O'Shaughnessy, p.* 491.

COLEUS OSMIRRHIZON. ELLIOT.

Hrebera	SANS.	Iribeli, Irbeli	TEL.
Valuka	„	Kuruveru	,,

It grows in Southern India, where it is cultivated in gardens. The hindu women use the scented roots to ornament their hair, and it is used as a drug and as an offering to idols. Has not been seen in flower.

COLEUS SPICATUS. BENTH. syn. of Anisochilus carnosum, *Wall.*

COLE-WORT. A variety of cabbage, Brassica oleracea, of little value.—*Jaffrey.*

COLLADDI OR KOILADDY, a fort on the island of Seringham.

COLLE. FR. Glue.

COLLERI, a race occupying the country south of Trichinopoly. Until late years so predatory that in the south of the Peninsula of India, Colleri became the designation of a thief: derived from Kallara thieves, plunderers. In ancient times they seem to have inhabited the woods from Trichinopoly to Cape Comorin. Orme writing of them, describes them in the middle of the 18th century as expert thieves and plunderers, and the Jesuit Father Martin, says they were very cruel. Pennant writing of them in the 18th century, says "the adjacent countries are covered with thick forests and little cultivated by reason of the savage inhabitants, the Polygars and Colleries, who may be truly styled "sylvestres homines." The Colleries, he adds, were predatory and their government, as also that of the polygars, feudal. The Colleries are in number thirty or forty thousand. Their country is hilly. They generally sided with mahomedans and the British in the wars against the French in the times of Clive and Dupleix.—*Pennant's Hindostan. Orme's Hindustan.*

COLLETIA SPINOSA. See Evergreens.

COLLENSIA GRANDIFLORA. A bright flowering plant, exotic, cultivated in the gardens of Europeans.—*Riddell. Jaffrey.*

COLLOCALIA, a genus of birds belonging to the family Cypselidæ. There are two species, one of which, C. linchi, is the swiftlet that produces the edible bird's nests used in China as a restorative food. The other species is C. nidifica. See Bird's Nests, Birds.

COLLOCALIA BREVIROSTRIS. A swallow supposed to be one of those producing the edible bird's nest. There are two species of Collocalia. See Aves: Bird's Nest. Birds.

COLOCASIA. RAY. A genus of plants of the family Araceæ, of which several species grow in the south and east of Asia; viz., C. antiquorum, cucullata, esculenta, fornicata, odora, indica, macrorrhiza of Ceylon, and C. Himalensis of the Himalaya, several of them have edible roots, all of them remarkable for containing a milky juice. They are grown in S. Europe, the East and West Indies, and in Polynesia, where the leaves and roots, under the name of yam, Coco, Eddo, are used as food. The following species are known.

C. antiquorum.
C. bi-color.
C. arborescens.
C. cuculata.
C. esculenta.
C. fornicata.
C. himalensis.
C. Indica.
C. macrorhiza.
C. montana.
C. mucronata.
C. uymphæfolia.
C. odora.
C. virosa.

Caladium aquatile, *Rumph.*

„ vicorum „

COLOCASIA ANTIQUORUM. SCHOTT.

Arum colocasia, *Linn.*; *Roxb.*; *W. I.*

Arum Ægyptiacum, *Rumph.*

There are five varieties of this plant,

α. Goori kuchoo. BENG.

β. Ashoo „ „

Shema kalengu TAM.	Chema, Chama dumpa, TEL.
Chema, Chamakura TEL.	

These are cultivated in most parts of India and Burmah. Small offshoots from the tubers are, like potatoes, planted in well manured friable rich soil. The roots of the Goori kuchoo are taken up in about nine months, and those of Ashoo kuchoo after seven months.

γ. Kalo-kuchoo. The roots send out numerous runners, but do not swell into tubers like the cultivated varieties. The leaves and petioles are used as greens.

δ. Char kuchoo, and ε. Bun kuchoo, are not cultivated and seldom eaten; in Burmah, A. and B. supply the place of potatoes.

Synonims

Kalkas	Arab.	Ghoya	Hind
Kur	,,	Kaladi	Malay
Rab; Alu	of Beas.	Ghuyan	Panj.
(a) Gurio Kuchoo	Beng.	Kachalu	,,
	,,	Kuchoo	Sansc.
	,,	Kuchwæ	,,
	,,	Gahala	Singh.
	,,	Tadala	,,
Peing	Burm.	Habarala	,,
Egyptian Arum	Eng.	Taro	of South Seas.
Yam	,,	Kopeh	,, ,,
Eddo	,,	Kasauri; Gagli	of Sutlej.
Coco	,,	Chama Kuru	Tel.

This is cultivated in many parts of India, and up to 6,500 feet in the Panjab Himalaya, and to 7,600 in Chumba and Kulu. It is a plant of Greece, Asia Minor, Syria, and the East Indies. There are two varieties of this Arum cultivated near Calcutta, the Guri and Assoo-Kuchoo, and three varieties, Kala, Chan and Bun-Kuchoo, are found wild. The small off-sets of the Gari and Asoo are planted about the beginning of the rains in May or June, in a well laboured friable rich soil. The roots of Asoo are taken up about the close of the year, and those of Goori in February or March.—*Drs. Mason and Voigt. Roxb. III*, 494. *Bombay Products. Eng. Cyc. Wight Icon. Irvine's Med. Top.*, *p.* 207. *Hog. Veg. Kingdom. Powell Hand-book*, *pp.* 257-8. *Dr. Stewart*, *p.* 247.

COLOCASIA ESCULENTA. Sch.

Arum esculentum. *L. Graham.*
Calla colyptrata. *Roxb.*
Arisarum esculentum. *Rumph.*

Arbes	Ar.	Ghoya	Hind.
Arbee	,,	Tallas	Jav.
Absen ul Fil	,,	Soorun	Mahr. Hind.
Arvi-ki baji	Duk.	Kaladi	Malay.
Egyptian ginger	Eng.	Kuchoo	Pers.
Esculent Root	,,	Chamaka ?	Sans.
Ahan, Coco, Eddo	W. In.	Taro	Tahiti.
Racine elementaire	Fr.	Saimmay-kirai	Tam.
Chou de Bresie	,,	Gadda Kanda	Tel.
Essbare Wurzel	Ger.	Bete	Ternate.

This species is cultivated in Brazil, the East and West Indies, Burmah, the Archipelago, and Polynesia. The root somewhat resembles a pine-apple, but is globular. It is rather coarse, but is used by the natives at Bombay, who make use of the tubers in curries, &c. This seems to be the plant so largely used in the West Indies and Polynesia under the names Coco, Eddo, and Taro. It is a valuable root, shaped somewhat like a yam, and when well boiled and afterwards roasted is not inferior to it in taste. It is the common food of the inhabitants of Travancore, where there is a superior variety of it, with broad purple coloured leaves. The Warriah (qu. Ooriah?) in the Ganjam Circars call it Cutchoo; the Malays of the Eastern islands hold it in high estimation. Niebuhr says it is produced in abundance in marshy situations in Arabia as well as in Egypt. Rumphius says, "Nutrimentum est catholicum in orientalibus hisce insulis et tanquam utilissima regionis censetur planta eodem modo, quo ab antiquis jam fuit temporibus in Egypto, licet ibi haberetur cibus rusticorum, ac forte per saracenos ejus usus innotuit. Occidentalibus Africae et Europae partibus, ita ut haud inepte Æthiopum panis vocari posset."—*Rumphius, tom.* v. *page* 316. *Ainslie. Voigt. Jaffrey's Hints. Neibuhr Travels. Graham in Thompson's Records of General Science, Vol.* IV. *p.* 38.

COLOCASIA GRANDIFOLIA. The great leaved Caladium, is the "Aloo" of Bombay.

COLOCASIA HIMALENSIS. See Colocasia.

COLOCASIA INDICA. Roxb.; *Voigt.*

Arum Indicum. *Lour. Roxb. W. Ic.*

Man Kuchu	Beng.	Tota calir akkisa	Tel.

This is cultivated in India, where its esculent stems and pendulous tubers are eaten by all classes of natives..—*Voigt. Gen. Med. Top*, p. 207.

COLOCASIA MACRORRHIZA. In the Fiji islands, is called Ndalo or Taro, there is a water and a land variety, the former of which is the more usually grown. The average weight of the roots is 2 lbs. and the crops are raised from November to April. It requires irrigation. The young stalks and leaves are used like spinach or in soup. The root is employed for making the mindrai or native bread. It contains much starch.

COLOCASIA NYMPHÆFOLIA, Roxb. ? *Royle.*

Arum nymphæfolium *Roxb. W. Ic. Rheede.*
Caladium nymphæfolium, *Roxb.*

Sar kuchu	Ben.	Chara kanda	Tel.
Welli ela	Maleal.		

This grows in moist parts of Southern India, Bengal, and the Konkans, and is said to be used as food in Malabar.—*Voigt.*

COLOCASIA SAGITTIFOLIA. Syn. of Caladium sagittifolium, *W.* Arrow leaved Caladium, ENG.

COLOCYNTH.

Hanzil	ARAB.
Makhal	BENG.
Indrawun ka.phul	DUK.
Bitter appelen.	DUT
Dahak	EGYPT.
Bitter apple	ENG.
„ Cucumber	„
Coloquintida	IT.
Coloquinte	FR.
Koloquinten	GER.
Indrain	GUZ. HIND.
Cishala Indravaruni	SANS.
Titta Commodoo	SINGH.
Coloquintidas	SP.
Peycoomutikai	TAM.
Varri Coomuti kai	„
Pootsakai	TEL.
Colocynthis	LAT.
Peponum Pulpa exsiccata	LAT.
Cucumis *Linn* (now Citrullus) Colocynthis.	
Colocynth.	

κολυκμδις of the Greeks, and Colocynth, the *Hunzal* of the Arabs, has been used in medicine from the earliest times, and is one of the plants supposed to be the *Pakyoth* or *wild gourd* of Scripture.

The plant grows in many parts of India, on the sandy lands of the peninsula, Dekkan, Guzerat, Kara, Delhi. The plant yielding it is the Citrullus colocynthis, the cucumus colocynthis of Linnæus. Dr. Burn states colocynth of two kinds occur in Guzerat, the Cucumis colocynthis, and the C. pseudocolocynthis.—The colocynth of commerce is the dried fruit, peeled and unpeeled, and is brought from the Levant, North of Africa and South of Spain. Colocynth is useful for protecting shawls and feathers against insects. The colocynth used in medicine as a hydrogogue cathartic is an extract from the fruit. That known in India by the Arabic names Indrayun and Bislumba, is obtained from the Citrullus pseudocolocynthis of Royle. *Him. Bot.* 47, *fig.* 2, *Royle Mat. Med. Spry's Suggestions. McCulloch Dict.*, *p.* 326.

COLOCYNTH OIL An oil prepared in India from colocynth seeds.

COLOMBO, the seat of Government in Ceylon, has a population of 40,000 people. It seems to have been selected by the Dutch from the proximity of the cinnamon gardens. for it has no other recommendation. It was visited by the Portuguese in 1505. It capitulated on the 16th February 1796. It is on the west coast of the island, in Lat. 6° 56′ N., Long. 79° 53′ E., and exports largely to Europe. Colombo is mentioned in Singalese historical annals so early as A. D. 496; the name is said to signify a seaport. This and Covelong, south of Madras, and Quilon of the western coast, are all the same name. "Kulam."—*Horsburgh. Sirr.*

COLOMBO KI JAR. ANGLO-HIND. Root of Cocculus palmatus.

COLOMBO ROOT.

Colombo wortel	DUT.
Racine de Calombo	FR.
Kolumba wurzel	GER.
Raiz de Calumba	PORT.
Kalambu khu	SINGH.
Raiz de Colombo	SP.
Kalumb-ki jar	GUZ. HIN.
Radice di Columbo	IT.
Kalumb of	MOZAMBIQUE.
Columbu ver	TAM.
Columbu veru	TEL.

The Colombo plant is the Cocculus palmatus. It grows wild on the coast of Mozambique and at Oribo in East Africa, and is much cultivated in the Mauritius. The root is imported into Bombay for re-export to Europe, and is much esteemed in medicine for its powerful antiseptic, tonic and astringent properties.—*McCulloch. Voigt.*

COLOPHONIA MAURITIANA. D. C., syn. of Canarium commune, *Linn.*

COLOPHONITE. See Corundum, Garnet. Gem.

COLOQUINTE. FR. Colocynth.

COLOQUINTIDA. IT. LAT. Colocynth.

COLOQUINTIDAS. SP. Colocynth.

COLOSSOCHELYS ATLAS, a vast fossil land tortoise of the Sewalik Hills, in the north of India, discovered by Dr. Falconer and Major (afterwards Sir Proby) Cautley. It is supposed to have become extinct since the creation of man. It is of enormous size. The Sewalik hills are in India a tertiary chain apparently formed by the detritus of the Himalayas. A great number of huge fragments, derived from all parts of the skeleton except the neck and tail, have been obtained. A diagram by Mr. Scharf showed the animal restored to the natural size; of reptilian forms discovered in the fossil state, colossal representatives have been found in the Sewalik of all the known tribes, such as the *Iguanodon*, *Megalosaurus*, *Labyrinthodon*, &c., besides numerous forms of which no living analogues exist, such as the *Enalisaurian* reptile, and *Pterodactyles.* No fossil *Testudinata* remarkable either for size or deviation from existing forms, have hitherto been found in the fossil state. The Colossochelys supplies the blank in the first respect, while it differs so little from the land-tortoises in the general construction of its osseous frame, as hardly to constitute more than a sub-genus of *Testudo.* The affinities with *Testudo* shown in the shell, and the extremities, were found to hold equally good in the construction of the head, of which a comparatively small-sized specimen, inferred to have belonged to a young or half grown *Colossochelys*, was exhibited. The head of the adult, to correspond with the dimensions of the shell and according to the proportions furnished by a large *Testudo Indica*, was deduced to have been two feet long. The generic name given by the discoverers has reference to the colossal size of the fossil (κολοσσὸς et χέλυς), and the specific one to its fitting representation of the mythological tortoise that sustained the world according to the systems of Indian cosmogony.

The first fossil remains of this colossal tortoise were discovered in 1835 in the tertiary strata of the Sewalik Hills, or Sub-Himalaya skirting the southern foot of the great Himalayan chain. They were found associated with the remains of four extinct species of mastodon and elephant, species of rhinoceros, hippopotamus, horse, anoplotherium, camel, giraffe, sivatherium, and in a vast number of other mammalia, including four or five species of quadrumana. The Sewalik fauna included also a great number of reptilian forms, such as crocodiles and land and fresh water tortoises. Some of the crocodiles belong to extinct species, but others appear to be absolutely identical with species now living in the rivers of India, in particular to the *Crocodilus longirostris*, between the existing forms of which and heads dug out of the Sewalik Hills, no difference is detected. The same result applies to the existing *Emys tectum*, a common species in all parts of India. A very perfect fossil specimen, presenting the greater part of the evidence of the dermal scutes, is undistinguishable from the living forms, not varying more from these than they do among each other. Prof. Thomas Bell considers that there are no characters shown by the fossil to justify its separation from the living *Emys tectum*. There are other cases which appear to yield similar results, but the evidence has not yet been sufficiently examined to justify at present a confident affirmation of the identity.

There are fair grounds for entertaining the belief as probable that the *Colossochelys Atlas* may have lived down to an early period of the human epoch and since become extinct:—1st, from the fact that other Chelonian species and crocodiles, contemporaries of the *Colossochelys* in the Sewalik fauna, have survived; 2nd, from the indications of mythology in regard to a gigantic species of tortoise in India.—*Jour. As. Soc. Ben.* No. 247 of 1855.

COLOURED HORSE SHOE-BAT. One of the Cheiroptera.

COLOUR. *Colour Sticks* for lacquer ware are used in the Panjab, by the Kharati, or wood turner, to colour his ware when the turning process is complete. The stick consists of shell lac, melted down with a certain proportion of wax and sulphur, and coloured by various simple or compound colours. They are applied by the hand. The operator holds the colour stick against the turned wood object while revolving rapidly; the heat produced by the friction melts the lac and the colour is deposited on the surface of the wood. The skill and fancy of the operator directs him either in laying on a uniform layer of colour, or else putting it on in little spots or touches, by allowing the colour stick only very lightly to touch the revolving wood, thus producing either a smooth uniform color, or the pretty mottled appearance so often observed in lacquered ware. Two or three different colour sticks are often applied, giving the whole a marbled appearance of great beauty. The colour thus applied is spread, fined and polished, by pressing the edge against the turned object while revolving. The final polish is given by a rag with a little oil. The principal colours are of lac, crimson, orpiment, red-lead, green, made of orpiment and Prussian blue, dark blue, indigo or Prussian, black white, brown or gold colour, light blue or ultramarine.

Colours for enamels. Vitreous masses are employed by the "minakar," or enameller on silver, &c. The colours are principally green and blue, salts of iron and copper diffused through vitreous matter; a yellowish colour also is produced by litharge. The manufacture, which consists in taking a silver or metal vase, having the pattern of leaves or flowers worked on it in relief, and filling the hollows with enamel in a melted state. The colours exhibited are blue, green and red. The art of making this material is known in Lahore, Mooltan and other places.

Colours from the mineral kingdom, are procurable in Southern India from the following places :—

Alumina coloured with madder lake (prepared from the munjeeth or Rubia tinctoria.)	Chingleput.
Antwerp red	Ganjam.
Burnt sienna	Hills near Salem.
Bright yellow ochre	Hills near Cuddapah.
Brown ochre	Chingleput.
Cologne brown	Neilgherry Hills.
Cream colored ochre	Hills near Salem.
Dark shade of grey ochre	Nuttum Hills.
Dark umbre	Neilgherry Hills.
Deep yellow ochre (common in the bazars of Madras)	Madras.
Flesh coloured ochre	Near Salem.
Indian red	Hills near Chingleput.
Iron sand	Bimlipatam.
Lavender coloured ochre	Bangalore.
Light red ochre (prepared from the yellow ochre)	Nuttum Hills.
Orange ochre, (made from the yellow ochre by heat)	Near Cuddapah.
Pale yellow ochre	Nuttum Hills.
Peroxide of manganese	Mahratta country.
Plumbago or black lead	Vizianagarum and Golcondah.
Puce coloured ochre	Bangalore.
Purple ochre	Hills near Chingleput.
Raw umbre	Neilgherry Hills.
Raw sienna	Near Salem.
Roman ochre	Chingleput.
Salmon coloured ochre	Salem.
Silvery white kaolin	Bimlipatam.
Ultramarine (prepared from the lapis lazuli)	From Bombay.
Venetian red	In the Bazars in Madras.

Warm stone coloured ochre ...	Near Chingleput.
White ochre or porcelain earth.	Bangalore.

Chinese red colour is made from Taowfau, or copperas; their mode of preparation is by putting a pound of copperas into a crucible, over which another crucible is luted, having a small hole in it, which is lightly covered over: around these they pile charcoal, and enclose the whole within bricks, when they fire the charcoal, and as soon as the fumes, issuing from the aperture in the crucible, become of a light colour, a small quantity of the copperas is taken therefrom, laid upon firwood, and moistened with water; if the colour then prove to be a bright red, they remove the fire, if not, they allow the copperas to remain subjected to the heat until it assumes that colour, and then remove the fire. When the crucibles are cool, a cake is found in the lower one, but the finest colour is encrusted on its sides and on the bottom of the upper crucible, which is kept separate from the cake; the pound of copperas produces about four ounces of colour.

Chinese white colour is made from calcined transparent flint, to an ounce of the powder of which they add an equal quantity of white lead.

Chinese green is beautiful. It is prepared with one part of powdered calcined flint, two parts of white lead, and six parts of the scales of well hammered copper.

Chinese violet is produced by adding an additional quantity of the prepared white to the green.

Chinese yellow is made by combining equal portions of prepared white and red.

All these various colours are used by the China-ware painters, having been previously dissolved in gum-water, to which they occasionally add saltpetre, copperas, or white lead. The colours are laid on after the first baking and varnishing of the China-ware, but the beauty and depth of the colouring is imperceptible until after the second taking.

Black China-ware, the Ow-mi-ew, ornamented with gold, is very much prized in China: to make it they mix three ounces of azure, and seven of the oil of stones; this is laid on the ware, and when perfectly dry, it is baked, after which the gold is laid on, and the vessel is rebaked.

Cracked porcelain, the Towi-kie, is a porcelain prepared simply by varnishing the vessels with a whitish ash-coloured varnish, made from calcined transparent white pebbles; this has the property of marbling and veining the ware, and giving it an appearance as if it had been fractured into many pieces, which had been carefully reunited; this China-ware is highly prized under the cognomen of the cracked porcelain.

Colours of Dress. It would appear from numerous observations that soldiers are struck during battle according to the colour of their dress in the following proportion: red is the most fatal colour: the least fatal, Austrian grey. The proportions are, red, 12; riflegreen, 7; brown 6; Austrian blueish-grey, 5.—*Jameson's Journal*, 1853. *William's Middle Kingdom. Powell's Handbook; Sirr's Chinese, Madras Ex. Jur. Rep.*

COLTS are taken in tribute by several Eastern races, and in the ancient Persian empire, the tribute of the distant Satrapies was of this kind. Armenia, according to Herodotus, alone gave an annual tribute of twenty thousand colts. Up to a recent date, the princes of Amber received as tribute all the colts reared on one of their estates. Many of the Persian horses which were brought to India up to the middle of this century, were supposed to be tribute horses.—*Tod's Rajasthan, Vol. II, p.* 390.

COLUBER VITTA-CAUDATUS. BLYTH, affined to *C. Fasciolatus*, Shaw. Vertical plate pentagonal, with obtuse posterior apex. A single frœnal. Nineteen rows of scales, abdominal scutæ, 220: caudal scutellæ, 95 pairs. Ground-colour olive, paler below: a broad black streak behind each eye, not continued on to the neck, and hardly showing anterior to the eye: rest of the head and neck without markings. Tail short, with four longitudinal black bands of a whitish ground: anterior to the vent, the upper band, on each side becomes much broader, and is crossed with numerous pale striæ, more or less distinct; which, at about the second posterior fifth of the entire length of the animal, coalesce and unite to form a lateral pale band, more or less broken and continued forward to the neck: above and below this irregular pale band, are a series of black elongated diamond squares, pale-centred excepting those towards the neck; the upper series of these squares uniting, each with its opposite, leave a series of lengthened oval pale spots along the middle of the neck, continued (from about the third-fifth of the length of the animal) as an unbroken pale-band, to the end of the tail. Lower parts pale, mottled with black resolving into two dark lines upon a pale ground, along the posterior two-fifths of the entire length. Length of specimen, 19 in.; of which tail 3½ in. From the vicinity of Darjiling.—*Beng. As. Soc. Jour. No.* CCXLV. *No.* VII *of* 1854. See Colubridæ.

COLTELLI. IT. Knives.

COLUBRIDÆ, a family of snakes, the last of the sub-order Colubrina of Dr. J. E. Gray. The Colubrina include the families Hydridæ, Boidæ, and Colubridæ.

Fam. Colubridæ.

Playrea Isabellina. *Th.* Burmah, Bassein.
Coluber porphyraceus. *Cantor.* Assam, Khassya.
nuthallii. *Th.* Burmah.
colubrinus. *Blyth.* Darjiling.
(platyceps) semifasciatus. *Blyth.* Subathoo
Composoma radiatum. *Reinw.* Ramree.
melanurum. *Schl.*
reticulare. *Cantor.*
Hodgsonii. *Gunth.*
Cynophis Malabaricus. *Jerdon.* South India.
,, helena. *Daud.* Ceylon, Madras.
Ptyas mucosus. *Linn.* Subathoo. Bengal.
,, korras. *Reinw.* Ceylon, Darjiling, Assam, Burmah.
Xenelaphis hexahonotus. *Cantor.*
Zamenis ventrimaculatus. *Grey.*
diadema. *Schl.* Sind, Bombay.
gracilis. *Gunth.* Sind, Dekhan.
fasciolatus. *Shaw.* Ramree, South India
Zaocys carinatus. *Gunth.* S. F. Himalayas.
Herpetoreas Sieboldii. *Gunth.* Sikkim.
Tropidonotus quincenciatus. *Sch.* Bengal, Pegu, Andamans, Penang.
striolatus. *Byth.* Andamans.
subminiatus. *Reinw.* Bengal, Arabia, Pegu.
stolatus. *Linn.* Ceylon Calcutta.
nigrocinctus. *Blyth.* Pegu.
platyceps. *Blyth.* Darjiling.
angusticeps. *Blyth.* Ramree.
macrops. *Blyth.* Darjiling.
plumbicolor. *Cantor.* Bundlecund.
dipsas. *Blyth.* Darjiling.
macrophlotho. *Gunth.* Khassya.
Himalayanus. *Gunth.* Himalaya.
monticola. *Jerd.* Wynaad.
Ceylonensis. *Gunth* Ceylon.
Beddomii. *Gunth.* Neilgherry.
Zebrinus. *Blyth.* Mergui.
Hydrus. *Pall.*
Mortoni. *Theob.* Pegu.
Atretium schistosum. *Daud* Bengal.
Xenochrophis cerasogaster. *Cantor.* Bengal.
Fowlea Peguensis. *Theobold.* Rangoon.
Cadmus cuneiformis. *Theob* Simla.
Tomodon striatus. *D. and B.* Calcutta.

COLUBRINA ASIATICA. R. BR.

Ceanothus Asiaticus. *Linn. Roxb.*
,, capsularis. *Forst.*
Asiatic Red wood. ENG.

A large shrub with pale greenish flowers, belonging to the natural order Rhamnaceæ. Voigt notices other two shrubs of this genus, C. Nepalensis of Nepaul and C. macrophylla of Martaban.—*Mr. R. Brown. Voigt.*

COLUMBA, a genus of birds belonging to the family Columbidæ, and order Gemitores. Jerdon names C. intermedia, C. rupestris ; C. leuconota as occurring in India, C. aromatica, C. coronata, and C. carpophaga are now referred to other genera. The most common in India of the genus is the *Columba intermedia,* Blue pigeon.

C. livia var. *Blyth.*

Pagoda pigeon	ENG.	Kovil pora	TAM.
Kabutar	HIND	Gudi-purai	TEL.
Parivi	MAHR.		

They congregate in large numbers and breed wherever they can find suitable spots, on pagodas, mosques and tombs. The common blue pigeon differs from the C. livia of Europe, only in having an ash coloured, instead of a pure white rump. The C. livia of Europe or rock pigeon with its sub-species is the parent form of all domesticated pigeons. Of these, there are at least 150 varieties. There are four groups, consisting of the German, Dutch, and English poutters. A second group includes the Kali-par, Murassa, Bussorah, Dragon and English carrier ; the BagadotHen, Scanderoon, Pigeon Cygne Rients, the Tronfo and the Bank.

The third group includes the Java and English fantail, the Turbit and African owl ; the Persian Lotan ; common and short faced tumblers ; the Indian frill back and Jacobin.

The fourth group includes the Dove-cot pigeon, swallow, spot, nun, English frill back, Laugher and Trumpeter.

Columba livia. ' Rock Dove' of Europe, North Asia to Japan, N. Africa ; abundantly replaced in India by the barely separable C. intermedia. *Blyth. Darwin.*

COLUMBELLA. A genus of Molluscs.; See Mollusca.

COLUMBIDÆ, a family of birds belonging to the order Gemitores.

ORDER IV.—Gemitores or Pigeons.

FAM. Columbidæ.

Sub-fam. Treroninæ, 5 gen, 3 sub-gen. 23 sp., viz. 3 Toria ; 8 Treron ; 3 Sphenocerus ; 4 Ptilinopus ; Carpophaga.

Sub-fam. Columbinæ, 7 gen. 21 sp., viz. 2 Alsocomus ; 3 Palumbus ; 2 Columba ; 4 Macropygia ; 2 Geopilia ; 7 Turtur ; 1 Chalcophaps

Sub-fam. Gourinæ ; 1 gen. 1 sp., viz. 1 Calænas Nicobarica.

Dr. Jerdon thus arranges the Gemitores or pigeons, syn. Columbæ, *Latham.*

Fam. Treronidæ.

Sub fam. Green pigeons. viz. 2 Treron ; 2 Crocopus ; 4 Osmotreron ; 2 Sphenocercus.

Sub-fam. Carpophaginæ. Fruit Pigeons. viz. 2 Carpophaga.

Fam. Columbidæ.

Sub-fam. Palumbinæ. Wood Pigeons. viz. 2 Alsocomus ; 3 Palumbus; 1 Palumbœna ; 3 Columba.

Sub-fam. Macropyginæ. Cuckoo doves. viz. 1 Macropygia.

Sub-fam. Turturinæ. Turtle doves. viz. 6 Turtur.

Sub fam. Gouridæ. Ground doves.

Sub-fam. Phapinæ. Ground doves. viz. 1 Calcophaps indicus.

Pigeons, doves and turtles are abundant in Southern Asia and the Indian Archipelago.

Columba aromatica of Latham, now Vinago aromatica, is of a mild and timorous disposition, and is generally seen in flocks or societies except during the period of reproduction, when they pair, and retire to the recesses of the forest. The nest is simple, and composed of a few twigs loosely put together, and the eggs are two.

Carpophaga oceanica, Selby, is the Columba oceanica of Lesson, and according to Lesson is the Moulouesse, or Mouleux, of the natives of Oualan. It approaches the nutmeg pigeon, Columba (Carpophaga) onea, very nearly, but differs from it in size, being one-third less, and in the distribution of some of its colours.

"The Nutmeg Pigeon lives more particularly in the eastern Moluccas, and especially at New Guinea and Waigiou, while the Oceanic Fruit-pigeon is abundant in the little isle of Oualan, in the midst of the great archipelago of the Carolines, and seems to exist in the Pelew Islands; it may possibly spread over the Philippines, and at Magindanao."

Geophilus nicobaricus is the Columba nicobarica of Latham, the C. gallus of Wagler. It inhabits the Nicobar islands, Java, Sumatra, and many of the Moluccas. Mr. Bennett, who saw them in Mr. Beale's aviary at Macao, says that they were usually seen perched upon the trees, even upon the loftiest branches, and adds, that they build their rude nests and rear their young upon trees similar to all the pigeon tribe.

Lophyrus coronatus is the Columba coronata of Latham; Phasianus cristatus Indicus of Brisson; Columbi Hocco, Le Vaill.; Colombe Galline Goura, Temm.; Great Crowned Pigeon, Edw. A species surpassing in size all the other Columbidæ. Total length from 27 to 28 inches. This bird is found in many of the islands of the great Indian group. Not rare in Java and Banda, abundant in New Guinea and in most of the Moluccas. Nest built in trees; eggs two; cooing of the male hoarse, accompanied by a noise somewhat like that of a turkey-cock when strutting. Its food consists of berries, seed, grain, &c. Flavour of the flesh said to be excellent. *Eng.Cyc. pages* 70, 91. *Jerdon Birds of India. Catalogue Birds Ben. As. Soc. Cat. Birds India House Museum.* See Columbidæ. Birds.

COLUMBO WORTEL. DUT. Columbo-

COLUMBOO VER. ANGLO-TAM. Columbo root.

COLYMBIDÆ, a family of swimming birds now classed in the Natatores as Podicipidæ.

COMACUM—? See Cinnamon.

COMALA. HIND. The lotus; pronounced *kawal*. Arrankowal, 'the lotus of the desert, from *aranya* (Sanscrit), 'a waste,' and *comala*, lotus. By the spelling, it should be called *arancomala*; but the pronunciation is as above.

COMANCHES. See Hindu.

COMANES, a city mentioned by Ptolemy, supposed to be Nagara, near Cambay, now in ruins.

COMANI, a branch of the Catti tribe of Saurashtra, whose *pallia*, or funeral monumental pillars, are seen in groups at every town and village. The Catti were one of the early German tribes.—*Tod's Rajasthan, Vol.* I. *p.* 59.

COMARASAMY, a hill south of Ramanmalai hill, 30 miles west of Bellary overlooking the valley of Sundoor.

COMAREE RIVER is crossed at Ahmednuggur, 80 miles from source, and at Koilaghat, 41 miles from mouth, by fords during the dry season, and ferries during the rains.

COMARI is mentioned in the Periplus. It is the Cape Comorin of Europeans. See Kumari.

COMARIKA. SINGH. Aloes.

COMATTI KIRAI. TAM. Celosia nodiflora.

COMATULÆ, the Feather stars of naturalists, are found in the Eastern Seas. *Coll.*

COMBACONUM, in Tanjore, a large populous town. It was, in ancient times, in the territories of the Chola kings, who were settled in Tanjore and Combaconum, in and near the Cauvery and Coleroon rivers, and as some suppose, gave their name to the Coromandel Coast.

COMBERMERE, LORD. Stapleton Cotton began his career when Louis XV reigned in France. He lay down to his rest while the heir of the man against whose legions he struck such weighty blows was the acknowledged and unquestioned occupant of the throne. Lord Combermere accompanied his regiment, the 6th Dragoon Guards, to Flanders in 1793. From the easy conquest of the Cape he proceeded to India, and he was in command of the 15th Light Dragoons in the year 1796. His squadrons, led with the brilliant energy which distinguished his operations, bore no small part in the great war which Tepu Sultan provoked; and at Mallavelly and Seringapatam he confirmed the good opinion which had been formed of him in his previous service. Coming home full of honour—a colonel after ten years' service,—he married the eldest daughter of the third Duke of Newcastle in 1801, and after six years of comparative inaction, he joined the expedition against the French in the Peninsula, and at the head of his brigade of the 14th and 16th Light Dragoons showed at Oporto and Talavera what British cavalry can do when properly handled and led by a congenial spirit. Indeed, so thoroughly was his talent appreciated by the Duke of Wellington and by the Government that in 1809 Sir Stapleton Cotton was created locally a Lieutenant-General, and placed at the head of the whole allied cavalry. The historian of the campaigns which ensued celebrates on many an occasion the vigilance, courage, enterprise, and skill with which the task conferred on Sir Stapleton Cotton was fulfilled. Whether covering a retreat or leading an advance, on out-post duty, in guarding the rear or watching the flanks—whether in the charge, in the pursuit, or on the defensive, the British horse did their duty. In all the long series of actions which marked the varying fortunes of those famous campaigns, Lord Combermere was careful of horses and men, and taught himself to restrain the hot counsels of his youthful bravery and to turn them to practical utility. The despatches of the period show what he did in the retreat from Almeida, at Busaco, Fuentes d'Onor, Salamanca, El Bodon, the Pyrenees, Orthes, and at the battle of Toulouse. For his services in the Peninsula he was created a peer and received the thanks of the British Parliament. In 1814 he married Miss Greville, and he became a widower for the second time 33 years afterwards. Lord Combermere went to the West Indies after he had finished his Spanish career, and conducted himself with prudence and ability as Governor of Barbadoes in 1817, and as Commander-in-chief of the forces in the islands at the end of the American war. But long after the great European war was over he took to the field in India once more, and in 1825-6 dealt the death stroke to the great native confederacy which had for many years struggled to maintain its independence or to subvert British power. When Bhurtpore fell, a stain was wiped from British arms, and the people of Central India were taught the lesson which it needed some years to teach the Affghan and the Sikh. For more than 40 years afterwards his sword was sheathed, but the British nation did not prove careless of the old soldier's presence, nor the authorities indifferent to his services. It was the delight of the new-comer to London to see in Rotten-row the upright figure of the old man, dressed to perfection and mounted beyond his years, whose name was so well known as that of the good swordsman and soldier of half a century ago, and to mark him in all state pageants and court ceremonies, bearing himself as bravely as any new belted knight fresh from his virgin field.—*London Times.*

COMBOY. Singh. A waist cloth resembling a petticoat worn by the Singhalese.

COMBRETACEÆ. R. Br. A natural order of plants, the Myrobalan tribe, consisting of trees or shrubs, simple or climbing, of 22 genera, and about 140 species, four of which are in Madagascar, two are in Bourbon and Mauritius; one in the Society Islands, two in China, and sixty-four in the East Indies. Of the last, there are twenty-three Terminalia, twenty-five Combretum, two Poivrea, two Getonia, two Quisqualis, four Anogeissus, two Lumnitzera, one Bobua, one Sphalanthus, one Ceratostachys, and one Agatisanthes. Terminalia bellerica gives a strong good serviceable wood, where elasticity and strength are required. The withes of two species of the Combretum are extensively employed in the place of iron stretchers for the mouths of the leathern sacks used in drawing water from wells. Several species of Combretum, C. ovalifolium, rotundifolium, costatum, acuminatum, Chinense and extensum occur in parts of India. Combretum Wightiana is a fragrant flowered species, common on the hills near Moulmein, a straggling shrub, with winged fruit.—*Mason. Voigt.* 31. *Roxb.* ii, 226-7-8.

COMBRETUM ALTERNIFOLIUM. Heb. Mad. syn. of Lumnitzera racemosa, *Willd.*

COMBRETUM GRANDIFLORUM. syn. of Poivrea grandiflora.

COMBS. Eng.

Kammen	Dut.	Sisir : Garu	Malay.
Peignes	Fr.	Pentes	Port.
Kamme	Ger.	Grebnii	Rus.
Kunghae	Guz.	Peines	Sp.
Kunghae	Hind.	Shipu	Tam.
Peltini	It.	Duvenna	Tel.
Pectines	Lat.		

Combs for cleaning and adjusting the hair are formed of horn, bone, tortoise-shell, wood, &c. In Ceylon the marginal pieces of tortoise-shell are used at Point de Galle in the manufacture of bracelets; and necklaces formed of a chain of shell, resemble amber in appearance: these bear a higher price than such as are formed by the darker shell. In Ceylon there is a great demand for tortoise-shell for the manufacture of combs, which are worn by men as well as women among the Singalese. In the numerous excesses into which European costume has been carried the size of the back comb worn by ladies has never attained that of the Singalese men, who also wear a narrow, long, bent comb across the forepart of the head—the lighter colored shell is most esteemed by them. Five pounds is a moderate price for a tortoise-shell back comb, which increases in value according to the size and quality of the shell: hair pins of tortoise-shell are worn by the women: gold and silver being substituted for full dress: these hair pins are among the articles purchased by passengers. —*Faulkner. Rhode MS. McCulloch's Commercial Dictionary, p.* 364.

COMBU PAGUL-KAI. TAM. Momordica charantia.

COMBUSTIBLE MINERALS. Of this class of minerals, in India, there occur

Diamonds at Punna in Bundlecund, Mallavilly, near Cuddapah, Golconda, Masulipatam.

Sulphur in Cutch, Sind, Nepaul, Archipelago.

Petroleum, (Asphaltum, Naphtha,) in Assam, Arakan, Burmah.

Amber in Cutch, Assam.

Coal in Tenasserim, Berar, Burdwan, Sylhet, Beerbhoom, Nerbudda, Assam, Burmah, Archipelago.

COMEPHORUS, a genus of fishes belonging to the family Gobii. There is only one species, which is found in the fresh water lake of Baikal. It is not taken by the fishermen, but is found dead on the shores after the severe storms to which that lake is frequently exposed. The fish is about a foot in length, and of a soft greasy texture. It is collected and pressed for oil, but is not eaten. —*Engl. Cyc.. p.* 100. See Fishes.

COMER, a river near Fureedpoor, near Dacca.

COMERCOLLI. See Komerkolli.

COMINHO. PORT. Cummin seed.

COMINO. SP. Cummin seed.

COMINYAN. MAL. Benjamin.

COMMELYNA. Some of the plants of this genus are very handsome, the colour of the flowers mostly blue. They are propagated by dividing the tubers. Wight describes C. Bengalensis ; cristata ; nana ; papilionacea ; polyspatha; and scapiflora; and C. cæspitosa occurs in Burmah. Dr. Honigberger received C. nudiflora from the Himalayas under the name of Kandoolee.—*Wight's Icones ; Riddell.*

COMMELYNA COMMUNIS. LINN.

Calf grss	ENG.	Venna-devi kura	TEL.
Vatsa priam	SANS.	Niru kassuvu	,,
Kanang kirai	TAM.	Venna mudra	,,
Kunnu katti pillu	,,	Venna vedara	,,

The succulent leaves of this commelyna are used by the hindoos for feeding young calves when they wish to wean them from their milk. The plant has a small delicate blue flower and is found growing on the banks of water courses, along which it spreads rapidly sending suckers into the ground. Found in lawns ; the leaves are used by the natives mixed with other greens.—*Ainslie's Mat. Med. page* 301. *Mr. Jaffrey.*

COMMELYNA OBLIQUA.

Kanjura	HIND.	Kana	HIND.

. The root of this plant is edible. See Vegetables of Southern India.

COMMIA COCHIN-CHINENSIS, a small tree of Cochin China, with a resinous juice. It yields a gum which possesses emetic and purgative properties, recommended in dropsy.

COMMIPHORA MADAGACSARENSIS LIND. ; *Fl. Med.* 173.

Amyris commiphora, *Roxb.*
,, aggalocha, *Roxb., W. A.*
Balsamodendron Roxburghii, *Arn. W. Ill.*
Balsamodendron agallocha *W. & A.*
Daracht-i Muql. PERS.

Its resin.

Aflatoon	ARAB.	Googul	HIND.
East Indian Myrrh	ENG.	Muql	PERS.
Bdellium	,,	Googula	SINGH.
βδελλιον	GREEK.	Kookool	TAM
Μαδελχον of Dioscorides		Googooloo	TEL.

A small tree, a native of Sylhet, Assam, the Garrow hills and Madagascar: wood not known. It produces a valuable gum resin, of which the above are given as synonyms, met with in all the bazars of India. It much resembles myrrh, and is said by some good authorities to constitute the bulk of the article exported from Bengal as East Indian myrrh. Royle considers the Googul identical with the Bdellium of commerce, and he ingeniously traces in Budlyoon and Madelkon (the Greek synonyms of Googul), the βδελλιον and μαδελκον of Dioscorides. Dr. Ainslie (vol. i. p. 29) gives an excellent summary of all the information extant when his work was published, regarding bdellium. He describes the gum resin as semi-pellucid, yellowish, or brown, inodorous and brittle, softening between the fingers, in appearance not unlike myrrh, of bitterish taste, and rather strong smell. He states however that it is all brought from Arabia and Persia, where the tree is called *Daracht-i-muql.* In the bazars of India it is said that the googul " comes from the hills." The medicinal properties of Bdellium are exactly like those of myrrh, and as it is much cheaper, it may be preferred for dispensary practice.—*O'Shaughnessy, page* 287. *Royle.* p. 177.

COMMISSIONER. In India, this appellation is generally given to officers invested with full revenue and judicial powers, as the Commissioners of the Punjab, Sind, Burmah, Mysore, &c.

COMMON. An English word prefixed to names of many animals, plants and minerals :

Common Anise. Aniseed.
Common antelope, Antelope cervicapra *Pallas.*
Common Asparagus. Asparagus officinalis. *Willde.*
Common bamboo. Bambusa arundinaceæ, *Roxb.*
Common bean. Faba vulgaris, *Mœnch.*
Common beet. Beta vulgaris.
Common celery. Apium graveolens, *Lin.*
Common Chamomile, Anthemis nobilis, *Lin.*
Common Chilly. Capsicum annuum, *Linn.*
Common Coot. Fulica atra, of Europe, Asia, N. Africa, where found additional to F. cristata: America and Javanose species distinct : common in India.
Common corundum. Corundum.
Common crab. One of the Crustaceæ:
Common cummin. Cummin seed.
Common cypress. Cupressus. See Evergreens.
Common fennel. Fœniculum vulgare.

Common hemp-nettle. Galopsis tetrahita.

Common holly. Ilex: See Evergreens.

Common Indian senna. Cassia senna.

Common mallow. See Khabaji.

Common or hedge aloe. Aloe vulgaris.

Common pea. Pisum sativum.

Common purslane. Portulaca oleracea, *Linn.*

Common salt. Chloride of Soda: Sodii chloridum.

Common sapota. Achras sapota, *Willde.* Diospyros sapota.

Common shrimp. Shrimp. See Crustaceæ, Crannidæ.

Common spinach. Spinacea oleracea.

Common spruce-fir. Abies. See Frankincense.

COMMU KAIA. TEL. Momordica charantia.

COMMUNI. DUK. Solanum nigrum.

COMMUNIUM SINENSE, RUMPH. syn of Aglaia odorata, *Lour.*

COMORAH, a bay on the Malabar coast, fifty-one miles north of Severndroog.

COMPASS.

Söekompass,	DAN.	Compasso de marear,	PORT.
Zeekompas,	DUT.	Kompass korabelnii,	RUS
Compas de mer,	FR.	Sjocompass,	SP.
Boussole,	,,	Aguja de marear,	,,
Kompass,	GER.	Kompass	TAM.
Bussola,	IT.	Kompassu	TEL.
Padoman, Paduman, Pandoman, Panduman	MALAY.		

The compass is, at present, used for nautical purposes by the principal native traders of Southern and Eastern Asia, and of the Archipelago. The Bugis of Celebes, for example, use small rude compasses, made expressly for them by the Chinese of Batavia, at the very moderate cost of from one shilling to eighteen-pence apiece. The directive power of the magnet is said to have been known to the Chinese for many ages,—by their own account, no less than 634 years before the birth of Christ. Their knowledge of the magnet is supposed to have led them to a knowledge of the compass, and the mariner's compass was invented by the Chinese in the reign of Hoang-Ti. The subdivisions of this nautical instrument as made by the Arabs, the Chinese, and the Maldives; all vary. The Malay compass is divided into sixteen parts, twelve of which are multiples of the four cardinal points. For the cardinal points the different nations have native terms; but for nautical purposes, those of the Malay language are used throughout, as in the case of the nations of Celebes, the most expert native navigators of the present day. The introduction of iron ships has materially affected the value of the compasses on board of them, the variation being as much as five points, even up 24½ and 35½. The sole apparent remedy for this, but it is one of easy application, is to erect a high platform, 15 feet high over the taffrail on which to place the compass, and to examine repeatedly.—*Crawfurd's Des. Dic. of the Indian Islands, p.* 116. *Bunsen,* iii. 383 *McCulloch's Commercial Dictionary, p.* 381.

COMPOSITÆ. VAILL. A very extensive order of plants, now known as Matricariacæ. DeCandolle enumerates 898 genera with 8371 species, of which 908 are known to occur in the south and east of Asia. Amongst these are Callichroa, Cineraria azurea, Centaurea, Chrysanthemum, Cladanthus, Coreopsis tinctoria, Cosmea bipinnata, Costus putchuk, Cotula, Dahlia variabilis, Elephantopus, Eupatorium, Humea elegans, Jurinea, Podolepis gracilis, Rhodanthe, Telekia, Zinnia, &c.—*Voigt.*

COMPOSSO DE MAREAR, PORT. Compass.

COMPOUND. This Anglo-Malay word is a corruption of the Malay compong or village, and properly alludes to the houses of the servants which are erected within the enclosure. It is applied in almost the same sense all over British India, where, however, some suppose it to be derived from the Portuguese word Campagna. Another writer says it is from the Portuguese word "*Componze,*" and another Compinho, and applied by the Europeans of India to the grounds or enclosure in which a house stands. The Malay word Compong is doubtless the source.—*Earl. Sirr.*

COMPRADORE, ANGLO-INDIAN. A purveyor; in China, an accountant.

COMPTI, Kompti, Komatti MAHR. TAM. TEL., in the peninsula of India, persons engaged in trade, generally shop-keepers and general merchants, and commonly recognised to be Vesya hindus; they wear the sacred string or zonar. They are, amongst the Tiling and Tamul people, what the terms Guzerati, Banya, Marwari, and Ves, are amongst the traders from Rajputanah and Guzerat: they are never soldiers.

COMUTTI MADALAH PALLAM? TAM. Citrus medica.

CONAJI ANGRIA, a person of low origin who long carried on a piratical warfare on the western coast of India, and rose to princely power. Gheria was his head-quarters, but Severndroog and every creek were fortified. Gheria was captured by Clive and Admiral Watson in 1755. See Angria.

CONCAN, a small narrow strip of land lying between the western ghauts and the sea coast. The low land in the Concan and Guzerat is traversed by many rivers and smaller streams running to the sea, and is indented by numerous creeks and channels of the ocean. The cold weather is clear and bracing, but the hot season of April and May is succeeded by the deluging rains of the south-west monsoon, when 150 inches fall from June to September, and render much of the already humid lands impassible swamps; the atmosphere is then very damp, and the sensation experienced is similar to that in Calcutta at the same period of the year. The Concan districts extend from Goa to Daman, or very nearly to the Tapti river. Like Malabar, which it greatly resembles in general aspect, it is comprised between the western ocean and the ghats, and consists of a narrow belt near the sea with salt-water inlets, and a succession of mountain spurs. In the northern parts of the Bombay Presidency, the chain separating the Concan from the Dekhan is called the Northern Ghats, or Syhadri mountains, a term which may conveniently be extended to their whole length. Throughout the Concan the Syhadri form a continuous chain of hills, interrupted, however, by deep depressions. Their summits rise to the height of 4000—5000 feet, but the mean elevation is very much less. The station of Mahabaleshwar is 4700 feet. In the latitude of Daman 20½° N., the chain begins to sink abruptly into the Tapti valley, and changes its course, or sends off a spur of considerable elevation in an easterly direction, as the Chandor hills. At Mahabaleshwar, the rain-fall amounts to 248 inches annually. In the Southern Concan, especially in the Sawant Wari district, the rains are as heavy as in Canara. At Bombay, the rains last from June till the end of September, and the fall is only 80 inches, which is considerably less than any point further south on the coast. At Tannah, however, the average fall is more than 100 inches. In the Bombay Presidency, the provinces of Aurungabad and Beejapore are arranged into two portions, termed the Poona and the Southern Mahratta districts, the latter with its head-quarters are at Belgaum; but to each of these two divisions there is likewise allotted the command of the immediately adjoining portions of the level land of the Concan. The Belgaum Division of the army, in the province of Bejapore, is from 2,500 to 3,000 feet above the level of the sea, but has had soldiers on the sea shore at Kolapoor, Sawuntwarie, Malwah, Vingorla and Rutnagherry. The Poona Division is similar to that of Belgaum in the distribution of its force; of the soldiers in the command nearly the whole of them are in the provinces of Aurungabad, from 1,700 to 2,300 feet above the level of the sea. In the table lands above the ghauts, the climate is more dry and the rains and temperature moderate, the range of the thermometer being from 55° to 92°, and the troops, European and Native, in the Poona Division particularly, enjoyed comparatively good health.—*Hooker f. et Thomp.*

CONCH or CHANK SHELL. These and their uses have already been noticed under the heads Bracelet and Chank, to which reference can be made. The manufacture of rings for the arms and ancles from conch-shells imported from the Malayan Archipelago, is still almost confined to Dacca: the shells are sawn across for this purpose by semicircular saws, the hands and toes of the workmen being both actively employed in the operation. The introduction of circular saws has been attempted by some European gentlemen, but steadily resisted by the natives, despite their obvious advantages.—*Hooker Vol.* II. *page* 254. See Chank.

CONCHA FLUVIATILIS, Sea-shell is used by the hakims as a medicine, and with the common people, this fresh water river shell serves for a spoon, out of which they take their medicine.—*Honigberger, p.* 260.

CONCHENILJE Dut. Cochineal.

CONCHIFEROUS MOLLUSCA. See Chamacea: Chamidæ.

CONCHIFERES MONOMYAIRES. See Chamacea, Chamidæ.

CONCHI PALLAM. Tam. Limonia pentaphylla.

CONCHOLOGY. A branch of natural science which teaches the form and structure of shells, the hard outer covering of molluscs. See Mollusca.

CONCUBINAGE is very common all over India, amongst all religionists. It is more particularly prevalent in great towns and in places where, from any cause, the people are necessarily absent from their families and native towns.

CONDA CASHINDA. Tel. Toddalia aculeata.

CONDA-THANA-KAIA. Tel. Sterculiafolis digitatis.

CONDA TANGEDU. Tel. Mimosa xylocarpa.

CONDEMIR. The Takhalus or literary name, of Ghaias-ud-din bin Ho-u-mam-ud-din. His book is entitled Habib-us-sayar-fi Afrad-ul-Bashar, that is to say, "the curious part of the Lives of Illustrious Men." It is a history which he extracted from that which his father Mircond had composed, and entitled Rauzat-us-Safa, but to which he made augmentations. He dedicated this book to the Secretary of State belonging to the king of Persia, shah Ismael Saffavi, who gave him the name of Habib-Ullah, and for that reason the book had the name of Habib given it in the year 1508, Heg. 927, in the reign of Lewis XII. He was also author of another History, which is entitled Khalassat-ul-Akhbar, or the cream of histories.—*History of Genghiz Khan*, page 422.

CONDIMENTS. Aromatic barks, roots, seeds, and spices are numerous as condiments in South Eastern Asia, are found in every bazar, for domestic use, and some of them are largely exported. The following are the better known:

Botanical Names.	English Names.	Part used.
Allium sativum	Garlic	The bulb.
Archangelica officinalis	Angelica	The root.
Areca catechu	Areca nut	Calee paku.
Capsicum...	Capsicum, Bird pepper, large or hill pepper; shrubs...	The fruit.
Cassyta filiformis..	.. .	The plant.
Cicca disticha	Long leaved Cicca...	Fruit.
Chavica Roxburghii	Long pepper	Dry unripe fruit.
Crocus sativus	Saffron crocus.	
Curcuma longa	Turmeric	The rhizome.
Cinnamomum iners.	......	The leaf.
Citrus bergamia	Bergamot Citron...	The fruit and rind.
Carum. carui.	Caraway..	The fruit.
Corjsndrum sativum	Coriander	Do.
Cuminum cyminum	Cumin	Do.
Capsicum annuum...	Common Capsicum.	
„ baccatum	Bird pepper.	
„ grossum	Large capsicum, Bell pepper.	
„ frutescens	Shrubby capsicum, Guinea pepper.	
„ minimum	......	
„ nepalensis	......	
Caryophyllus aromaticus	Cloves	
Coffea Arabica	Coffee	Keeramboo.
Carthamus tinctorius	Safflower	
Chavica Roxburghii	Long pepper	
Eletteria cardamomum	Cardamoms	Yalum.
Fœniculum panmorium	Indian fennel seed.	The fruit.
Garcina purpurea...	......,	The rind.
Garuga pinnata	. ....	Ripe fruit.
Illicium anisatum..	Star Anise.	
Mangifera Indica..	Mango.	Unripe fruit, fresh and preserved.
Menta piperita	Peppermint.	
„ pulegium	Pennyroyal.	
„ sativa	Tall red mint.	
„ viridis	Spear mint.	
Moringa pterygosperma	Horse radish tree...	The root.
Laurus cinnamomum	Cinnamon	
Myristica moschata	Mace and Nutmeg...	The false aril and nucleus
Narthex asafœtida...	Asafetida	Gum resin.
Nigella sativa	Small fennel flower.	The seed.
Ocymum basilicum.	Sweet Basil.	Do.
Pimpinella anisum	Anise	The fruit.
Ptychotis ajowan...	Ajwain	Do.
Phyllanthus emblica	Emblic Myrobalan.	
Piper nigrum	Black Pepper	Unhusked berry.
„ „	White „	Husked berry
Rosmarinus officinalis	Rosemary	The plant.
Salvia officinalis	Sage	Do.
Salvia sclarea	Clary	Do.
Satureja hortensis...	Summer savory	Do.
„ montana...	Winter „	
Sinapis *Sps.*	Mustard	The seeds.
Sinapis chinensis...	Mustard	do.
Spondias mangifera.	......	The unripe fruit.
Trigonella fœnumgræcum	Fenugreek	The leaf.
Tamarindus Indica.	Tamarind	Pulp.
Thymus vulgaris...	Thyme	The leaves.
„ citriodorus	Lemon thyme	Do.
Vanilla planifolia..	Vanilla	The fruit.
Vitex bicolor	......	Do.
Zingiber officinale..	Ginger	The rhizome.

CONDOOLOO, TEL; Thovarai, TAMIL Cajanus Indicus, Dholl.

One variety is Coondooloo Conda, Tel. Malathovary, Tamil; Cajanus Indicus.

Another variety is Dholl, Hind. Condipuppoo, Tel.; Thovarai-purpoo, Tam. Cajanus Indicus.

CONESSI. FR. Connessi bark, Wrightia antidysenterica.

CONESSI SEED.

Lisan ul assafeer.	ARAB.	Indrayava,	SANS.
Indrajow, GUZ.	HIND.	Veppalei arisce,	TAM.
Ahir,	PERS.		

The seeds of Wrightia antidysenterica (*Nerium antidysentericum*).

CONEY. Paleontologists have pointed out the curious fact that the Hyrax called 'coney' in the Bible, is really only a diminutive and hornless rhinoceros. Remains have been found at Eppelsheim which indicate an animal more like a gigantic Hyrax than any of the existing rhinoceroses. To this, the name of Accrotherium (hornless beast), has been given.

CONFECTION OF BLACK PEPPER. In compounding this drug in India, for elecampane root (inula helenium), Dr. O'Shaughnessy recommends the substitution of the goonch root, Abrus precatorius, the Edinburgh Pharmacopeia uses liquorice root; and for the fennel seeds of the London preparation, the seeds of Panmuhori, or Sonf, (Fœniculum panmorium) are an adequate sustitute.—*Beng. Phar. p.* 273.

CONFERVÆ abound in the warm water of the hot springs of Soorujkhund, in Behar, and two species, one ochreous brown, and the other green, occur on the margin of the tanks themselves, and in the hottest water; the brown is capable of bearing the greatest heat, and forms a belt in deeper water than the green: both appear in broad luxuriant strata, wherever the temperature is cooled down to 168° and as low as 90°.—*Hooker. Him. Jour. Vol.* 1. *p.* 21.

CONFLUENCE, or fork of two rivers, Sangam. HIND. The hindus esteem all such places holy.

CONFUCIUS, whose Chinese name is Kung Fu Tze, was the founder of the school of philosophy in China, which contains injunctions as to conduct, and may be termed the moral code of China, in which learning (*Wen*), courtesy, good-breeding and propriety (*Li*), doing as you would be done by (*Shu*), sincerity in worship of the deity (*Tien*), are every where inculcated. He never claimed the possession of supernatural power, and invariably reproved all who attributed such to him. Every word he uttered has become in China a maxim, a proverb and an aphorism, and in the fact that his language is intelligible to every Chinaman at the present day, his inculcations are of greater power than the Latin or the Greek, both unknown to their descendants. Once he was asked, whether there were one word which represented all the duties of life, he answered '*Shu*', a word which Confucius and his commentators have explained to mean, "as I would not that others should injure me so would I not injure them also." To seek the good of others equally with your own, is to fill a large portion of the field of virtue. The number of his disciples was about 3000, of whom about 72 were his more intimate associates. All his teaching consists of a few simple words, one of his aphorisms, "Chu Chung sin," verbally, "Head,faithful,sincere," mean that fidelity and sincerity are the paramount or primary virtues. Another is that Wen and Li make up the whole sum of human excellencies. "Lun yu" judge others indulgently,yourself severely. Confucius was a sage and a statesman. He and Lao Tse were contemporaries, Lao Tze was the founder of the Taoist or Reason Sect. He was a hermit, an ascetic who discouraged acceptance of public employments, he made reason the groundwork of his doctrine, and they have much to recommend them, but his teachings have merged into gross idolatrous rites, the study of astrology and necromancy, fanatical observance self-inflictions, such as dancing in flames, mutilating the body, practising abstinence and seclusion.

Among his other celebrated literary labors undertaken in B.C. 490 and the following years, he edited the Yih king, and appended those annotations which have given the work its subsequent value. What philosophical views may have been attached to the Yih king of Wan-wang and Chou-kung by the contemporaries of Confucius, we know not. That work, together with the other three works edited or compiled by Confucius, viz. the Shoo-king and the Le-ke, constitute the whole of the ancient literature of China which has come down to posterity, and who have it only, as it was explained, arranged or modified in passing through his hands. It is well known that he expressly repudiated portions of it, as containing doctrines adverse to the views which he held and strove to diffuse. The names only of some celebrated ancient books, one dating from the times of Fuh-he himself, have been preserved. It is these circumstances which constitute the labors of Confucius, the commencement of a distinct literary epoch. Apart from the labors of Confucius himself, the permanent literary results of this, the first of the two great philosophic or literary epochs of China, are contained in the collection of works called the Four Books, composed by different members of the school which he founded. The last contains a record of the ethical and political teachings of Mencius(Meng-tse), a philosopher who died in B. C. 317, and closed the first epoch. The Chinese people are in nowise prohibited from worshipping in the Buddhist and Taouist temples; in other words, they may regulate their purely religious life by the tenets of these, or indeed of any other sect. But where Taouism or Buddhism would leave the region of religion, and, in the form of philosophy or morality, extend their direct influence into the domain of the social science and art, there Confucianism peremptorily and effectually prohibits their action. Not only are the national legislation and administration formed exclusively on Confucian principles; it is by them also that the more important acts of the private life of the Chinese are regulated, as for instance marriages. The cause of the prevalence of mahomedanism in China, in spite of discouragements, lies in the fact that Confucianism says little or nothing of a supernatural world or of a future existence. Hence it leaves almost unsatisfied those ineradicable cravings of human nature, the desire to revere, and the longing for immortal life. That it has notwithstanding its want of these holds on the human heart, maintained itself not simply in existence, but as the ruling system, is a fact that must, as soon as it is perceived, form for every true thinker a decisive proof of the existence of great and vital truths in its theories, as well as thorough soundness and wholesomeness in the practical rules which it dictates. By Chinese philosophy, must be understood Confucian philosophy; and by Chinese morality, the moral principles rooted in that philosophy.

The works of Confucius, which are used by his followers, are called the "five canonical books," and are held in the greatest veneration: the whole tenor of these works indicate morality and sound political views; one political extract must suffice. Let those who produce revenue be many, and those who consume it few; let the producers have every facility, and let the consumers practise economy, and thus there will be at all times a sufficiency of revenue." He was born B. C. 552, and died B.C. 479, aged 73 years.—*Bowring. Sirr's China and the Chinese, Vol.* ii, *p.* 146. See China; Kung.

CONGANI, in the western parts of Tinnevelly, a hood or pent house, made of reeds to protect the person from rain.

CONGEA. In the neighbourhood of Maulmain and Amherst, but rarely in the southern provinces, the forest scenery is often ornamented with the numerous large purple bracts surrounding the small inconspicuous flowers of a species of Congea. In the distance it bears a strong resemblance to the dogwood tree of the Ohio valley when in flower. There are three different species in the Tenasserim Provinces, C. azurea, C. tomentosa, C. velutina, all called ka-yan, the same Burmese name. The leaves of C. villosa have a heavy smell and are used medicinally—*Mason.* *W. Ic. O'Shaugh.* p. 486.

CONGHAS, Tam. Schleichera trijuga.

CONGO. A wood used in Madras for fuzes.

CONICOPOLY.Tam. An accountant, from Kanika, an account, and kapila, a collector or supervisor.

CONIFERÆ, a natural order of Gymnospermous exogens, called by Dr. Lindley Pinaceæ, consisting of resinous, mostly evergreen, hard-leaved trees or shrubs, inhabiting all those parts of the world in which arborescent plants can exist. In Sikkim and Bhootan there are twelve Coniferæ, viz., 3 Juniper, Yew; Cupressus funebris, Abies Webbiana, A. Brunoniana, and A. Smithiana ; Larch ; Pinus excelsa and longifolia, and Podocarpus neriifolia. Four of these, viz., Larch, Cupressus funebris, Podocarpus neriifolia and Abies Brunoniana, are not common to the north west Himalaya, west of Nepal, but the other eight are common. Of the 13 natives of the north-west mountains again, only the following five, Juniperus communis ; the Deodar, Pinus Gerardina, Pinus excelsa, and Cupressus torulosa are not found in Sikkim. Dr. Mason mentions the Pinus Latteri as growing in Tenasserim, and Dr. Brandis adds, Pinus Massoniana, Lamb., and Pinus Khassiana. Thunberg mentions many pines in Japan, and they are numerous in China. The coniferæ of the Himalaya were described by Major Madden in 1846 to 1849. Dr. Cleghorn gives the following description of those in Kullu and Kangra.

Cedrus deodara, Deodar or Himalayan cedar. Kelu, Grows on the north slope of Dhaola Dhar, and in Kullu.

Pinus excelsa, Lofty pine, Kail, grows in Kullu, not in Kangra.

P. longifolia, Chil or Chir, the long-leaved pine. Grows luxuriantly on north slopes, timber best at 4-5000 feet.

P. gerardiana, Gerard's, or edible, pine. Neoza. A few trees across the Dhaola Dhar, near Classa on the Ravi.

Picea Webbiana, Webb's pine or silver-fir. Tos. The wood is not much valued, shingles are laid on the roofs of houses.

Abies Smithiana, Himalayan spruce. Rai. The rai is often 100 feet high, and 5 feet in diameter.

Cupressus torulosa, Twisted cypress. Deodara. At the head of the Parbati.

Taxus baccata, Common yew. Bramhi or Rakhab. In Kullu very scarce.

Juniperus excelsa, Pencil cedar. Leuri or Suri. On the crest of Dhaola Dhar and in Lahul.

He is of opinion that plantations of the indigenous pines would not answer. At present we have no record of the growth of Himalayan conifers, but we know that they increase very slowly Mr. Batten states " it is difficult in a garden, with every means of watering at hand, to show a good sized chir tree, Pinus longifolia, after ten years of care," and the Rev. Mr. Parker think that Pinus longifolia trees of the diameter named below have the ages assigned to them or nearly so' Six inches in 20 years, nine in 30, twelve in 45, fifteen in 55, and eighteen in 70.

The distribution of the Himalayan pines is very remarkable. The Deodar has not been seen east of Nepal, nor the Pinus Gerardiana, Cupressus torulosa or Juniperus communis. On the other hand. Podocarpus is confined to the east of Katmandoo. Abies Brunoniana does not occur west of the Gogra, nor the larch west of the Cosi, nor funereal cypress (an introduced plant however) west of the Teesta in Sikkim. Of the twelve Sikkim and Bhotan Coniferæ (including yew, juniper and podocarpus), eight are common to the North-west Himalaya (west of Nepal) and four are not : of the thirteen natives of the North-west Provinces, again, only five are not found in Sikkim, their names show how European, either specifically or in affinity, the absent ones are. I have stated, he continues, that the Deodar is possibly a variety of the Cedar of Lebanon. This is now a prevalent opinion, which is strengthened by the fact that so many more Himalayan plants are now ascertained to be European than had been supposed before they were compared with European specimens ; such are the yew, Juniperus communis, Berberis vulgaris, Quercus ballota, Populus alba, and Euphratica, &c. The woods of several of the Conifera are called cedars. But, in India, the term Bastard cedar is applied to the Guazuma tomentosa. Dr. Stewart gives the following Himalayan coniferæ.

Abies smithiana. *Wall.*
Cedrus deodara. *Loud.*
Cupressus sempervirens. *Willde.*
,, torulosa. *Don.*
Juniperus communis. *Lin.*
„ squamata. *Don.*
„ excelsa. *Bieb.*
Picea Webbiana. *Lamb.*
Pinus excelsa. *Wall.*
„ gerardiana. *Wall.*
„ longifolia. *Roxb.* The chill.

Taxus baccata. *Linn.* The yew. —*Eng. Cy., p.* 123, *Hooker, Vol. I, p.* 256. *Cal. Cat. Ex. of* 1862, *Drs. Brandis, Mason, Cleghorn and Stewart.*

CONIUM MACULATUM. LINN.

Shokran	ARAB.	Spotted Hemlock	ENG.
Banj-i-rumi	,,	Koneion	GR. of DIOSC.
Keerdamana of BOMBAY.		Cicuta	LAT.
Hemlock	ENG.		

Dr. Royle says there is little doubt of this being the *κωνειον* of the Greek, and the cicuta of the Romans, but it must not, from the similarity of name, be confounded with Cicuta maculata. Cicuta virosa occurs in Cashmere, where it is called Zahr-googul, or poison turnip, Salep e-Shaitan *Pers*, or Devil's Salep. Spotted hemlock is the shokran of the Arabs, who give kuniun as the Greek name. It is found in Europe, east of Asia and America. It is of importance in medicine, and derives celebrity from being considered to have been used as the Athenian state poison, by which Socrates and Phocion perished. The extract of hemlock is employed as an anodyne in scrofulous or cancerous affections, in rheumatism, neuralgia, and painful ulcerations.—*O'Shaughnessy, page* 371. *Royle.*

CONJEE MARAM. TAM. ? A light red coloured wood of Travancore, specific gravity 0·650, used for furniture, &c.

CONJEVERAM, a town west of Madras. It has a great pagoda which was taken by Clive on the 29th August and again in December, 1751, and again in 1752. It is known in the south as Kanchi. It is celebrated as one of the holiest of the hindu cities of the peninsula of India, and it has both a Saiva and a Vaishnava temple. Conjeveram was the capital of the Chola kingdom, which held sway in the south of India, from the eighth to the seventeenth centuries, when Shah-ji the father of Sivaji totally annihilated every vestige of their once great power. It was one of the most ancient and prolonged of all the Indian dynasties. See Hindu ; Sri Sampradaya.

CONJEE. HINDI. Properly Ganji. Rice starch.

CONKANI-HEMP. Crotalaria juncea.

CON-MOO. BURM. ? A tree of Tavoy, furnishing a good timber, used for buildings and boats.

CONNARUS CHAMPIONII. THW. A tree of the Central Province of Ceylon, growing up to an elevation of 4,000 feet.—*Thw. Enum. Pl. Zeyl. I, p.* 80.

CONNARUS MONOCARPUS. LINN.

Doke-ka-det	BURM.	Radaleya-gass	SINGH.

A tree of Burmah, and very abundant in the hot, drier parts of Ceylon.—*Th. Enum. Pl. Zeyl. I, p.* 80.

CONNARUS NITIDUS. *Roxb.* This is described by Voigt as a tree of Sylhet. Dr. McClelland, however, says that in British Burmah it is a shrub about ten feet high, very plentiful, especially in the Rangoon districts, and affords an oil seed of small size, but rich in a sweet oil.—*Voigt. McClelland.*

CONNARUS PANICULATUS. ROXB. A large timber tree of Chittagong.—*Voigt.*

CONNARUS SPECIOSA.

Gwai-douk	BURM.	Kadon kadet	BURM.
Khwæ touk	,,		

A large tree, very plentiful throughout the Rangoon, Pegu and Tonghoo districts, where it is known under the name of Kadon kadet. It is plentiful in all the forests, growing scattered with teak in the Tounghoo district, and in the forests of Pegu. It is a large, heavy, and strong timber. Wood white-coloured, adapted to every purpose of house building, remarkable for the quantity of its seeds, which are of large size, abounding in sweet oil.—*Dr. McClelland.*

CONNARUS UNIFOLIOLATUS. THW. A moderate sized tree of the Central Province of Ceylon, growing at an elevation of 3,000 to 4,000 feet, rather rare.—*Thw. Enum. Zeyl.*

CONNESSI BARK. TELLICHERRY BARK.

Conessie	FR.	Corte-de-pala	PORT.
Curayia ; Curaija	GUZ. HIND.	Cheeree ; Kutaja	SANS.
Palapatta	MALEAL.	Veppalei	TAM.
Codaga pala	MAL.	Pala codija, Manoopala	TEL.

Conessi bark is the produce of the Wrightia (Nerium) antidysenterica, belonging to the natural order Apocynaceæ, a native of most parts of India. It is astringent and bitter, and is considered febrifuge ; the seeds of the plant are termed *Indrajow.*—*Faulkner. Eng. Cyc. page* 122. *O'Shaughnessy.*

CONOCARPUS ACUMINATUS. ROXB. *Royle.*

Andersonia acuminata, *Roxb.*
,, lanceolata, *Rottler.*
Anogeissus acuminatus, *Wall.*

Yoong	BURM.	Pashi	TEL.
Pachiman	TEL.	Panchi	,,
Pachcha manu ?	,,		

This is a large, very valuable, and plentiful timber tree, growing throughout the southern forests, along with the Conocarpus latifolius. In British Burmah it is almost equal to the Terminalia microcarpa in size and the regular growth of its stem. Its wood is reddish brown, hard and strong, its breaking weight being 262 lbs. A cubic foot weighs lbs. 50 to 57, and in a full grown tree on good soil the average length of the trunk to the first branch is 80 feet, and average girth measured at 6 feet from the ground is 12 feet. It sells there at 12 annas per cubic foot. It flowers during the cold season. This tree is valuable on account of its wood, which is exceedingly like, and fully as strong and as durable, if kept dry, as the C. latifolia, but exposed to the water, it soon decays. Of course it is thus unfit for the marine yard, but equally fit for house building when it can be obtained straight, which is seldom the case. But for its weight, it would be most excellent timber.—*Drs. McClelland and Brandis, Mr. Rohde's MSS. Voigt*. See Anogeissus acuminatus.

CONOCARPUS LATIFOLIA. Roxb. *W. & A.*; *W. Ic.*

Andersonia altissima, *Roxb.*
Anogeissus latifolius, *Wall.*

Thoura,	Hind.	Tella neredu chettu.	Tel.
Dawura.	Mahr.	Chiri manu.	,,
Thoura.	,,	Siri manu.	,,
Daawoogass.	Singh.	Dhoboo.	Uria.
Vellai naga maram.	Tam.	Nongoliah.	,,
Duca.	Tel.	Pooroo.	,,

This large timber tree grows in the Dehra Dhoon,—in the Kenneri jungles, valleys of the Konkan rivers, on the inland Dekhan hills at Chillaime and Chittagong. It is one of the largest timber trees that are found amongst that chain of mountains, on the peninsula of India, which separates the Circars from the Nizam's dominions, where it is a native. It grows in Ceylon to the north of Kandy up to 1,500 feet. It flowers during the cold season, in January and February. Its trunk is erect, straight, varying in length and thickness, the largest being thirty-five feet to the branches, and about six feet in circumference. In Coimbatore, it is a tall handsome tree, furnishing an excellent and very strong timber. The specimens tried there, though not the best, sustained 500 lbs. Dr. Roxburgh speaks of it in very high terms. But Mr. Rohde could not learn that its timber was to be found of any size or value in Rajamundry or the Masulipatam Circar, these being the only localities in which he had met with it in common use, and he thinks its wood is over-estimated. He had seen many instances in which it has, though sound when put out, given way in buildings, and he had never seen it above a foot in diameter. On another occasion, Mr. Rohde says, " if this be the wood known by the name of Soriman, given by Roxburgh, I must say I never met with any worthy of the character he gives it—it is the common timber of Masulipatam, where I never saw a log of a size exceeding 12 inches diameter. The Tamil name given by Dr. Wight is that of the white Eugenia." Other notes in our possession describe this as a large tree in some cases, but the stem is often so deeply furrowed as to prevent it yielding a good plank. There is a fine specimen of this tree in the neighbourhood of Sydapet, near Madras. It is found about the sources of the Concan rivers, Kennery jungles, and on the inland Deckan hills, where it has a stunted and gnarled form. Dr. Gibson also says that in the Bombay forests, it varies in size from a scrubby shrub to a great tree, according to soil and situation, and it seems to be as common in the inland forests as it is in those of the coast. The wood is described also by Dr. Wight as very strong. It is also tough, and hence is much in use for the wooden axles of carts. It is much used in agriculture and house building. This also is one of the trees which should be largely increased. Its timber is universally esteemed for almost, every economical purpose, house building, shafts and yokes, and general use for railway purposes, and makes very good cabinet furniture. Towards the centre, it is of a chocolate colour and is exceedingly durable. For house and ship building the natives reckon it superior to every other sort—Pentaptera tomentosa, and teak excepted. Captain Sankey writing from Nagpore, says it is a white wood with a heart of a dark colour, and somewhat like rosewood. Its average length there is 12 feet and girth 7 feet. It is so much prized by the natives of Nagpore for axle-trees, that but few trees are permitted to attain their proper growth. By all accounts, in Nagpore, about 20,000 axle-trees are made from this wood yearly. It is attacked by white ants. Though not obtainable in very large quantities, it ranks high as a rafter timber.—*Drs. Roxburgh, Gibson, Riddell, Voigt and Wight. Mr. Rohde, Thwaites. Captain Sankey.* See Anogeissus latifolius.

CONOCARPUS MYSTIFOLIUM ?

Kardahee. Hind ?

Under these names was sent to the Exhibition of 1862, as a tree of Jubbulpore, a tough wood, but difficult to work; tolerably abundant (similar to Dowrah), grows along the banks of the Nerbudda.—*Cal. Cat. Ex.* 1863.

CONOCARPUS ROBUSTUS.

Caibyah. Burm.

A very large and strong timber tree, growing plentifully in the Pegu, Tonghoo and Prome forests, along with teak. Adapted for fancy work and cabinet making.—*McClelland.*

CONNELLY, four distinguished brothers of this name served in India, Captain Edward Connelly, Captain Arthur Connelly, Captain John Connelly, and Henry Valentine Connelly, all of whom were cut off prematurely. Two of them having been killed in action and two of them murdered. Captain Edward of the 7th Bengal Cavalry was killed in battle in Affghanistan, October 1841. Captain Arthur Connelly was kept captive till his death or murder at Bokhara in 1842. Captain John Connelly was killed at Cabool in 1842. These three distinguished brothers perished in Affghanistan within a year of each other. Edward was killed at Toolian Durrah,(Purwan Durrah?)October 1840 ;Arthur,the celebrated traveller, went on a mission to Bokhara in August 1840, and is believed to have been murdered in prison with Colonel Stoddard ; John was killed at the capture of Cabool in July 1842. Their brother Henry Valentine Connelly, of the Madras Civil Service, was murdered at the instigation of Moplah fanatics.

Captain Edward Connelly wrote on the Physical Geography of Seisthan in As. Jl. 1839, Vol. IX, 710. On figures of gems and coins, in Bl. As. Trans. 1842, Vol. XI, 137. An account of the city of Oujein and its environs. Ibid, 1837, Vol. VI. 831. Journal kept while travelling in Seisthan. Ibid. 1841, 319.

Captain J. Connelly wrote a Report upon Khorassan, Bl. As. Trans. 1842,Vol. XI. 116.

Captain A. Connelly wrote on the White-haired Angora goat, Lond. As. Trans. Vol. VI, 159. Overland Journey through Persia and Affghanistan to India. Lond. 1834, 2 Vols.

CONOPS, a genus of insects belonging to the order Diptera and the family Conopidœ. —*Eng. Cyc. page* 127. See Insects.

CONOSTOMA SEMODIUS. A Rasorial crow, sub-family Parinæ, inhabiting the northern region of Nepaul.

MOULE, Reverend, a resident in England, who proposed the introduction of the dry earth sewage. It would be of enormous value in India, but its cost has precluded its general introduction. This was enjoined by Moses, and the deodorizing properties of earth have long been acknowledged and resorted to. Tainted meat is soon divested of any bad smell by being put a little while under ground.

CONSERVE OF ROSES.

Gulcand	Guz.	Gul kandu	Tam.
Gulcand	Hind.	Gul-kandu	Tel.

Consists of rose-petals and sugar mixed in certain proportions, and bruised in a mortar. The conserve of roses met with in the bazars of Bombay, is chiefly obtained from Surat.—*Faulkner.*

CONSERVE OF VIOLETS, "gulkand-i-banafsha."

CONSPIRINA VAGABONDA. See Temia.

CONSTABULARY has been extensively introduced in British India since the revolt of the Bengal Native Army, and to Mr. William Robinson, C.S.I., of the Madras C. S., the credit is chiefly due. In regard to two very important branches of the administration, education and Police, the credit is due to Mr. A. J. Arbuthnot, C.S.I., and to Mr. Robinson, C. S. I. Madras has a right to be proud, and a comparison with other Indian governments is all in its favour. At the commencement of 1862, the experiment of the introduction of the new Indian police, established chiefly on the model of the English county constabulary, was made in North Arcot, a single taluq of a Madras district. At the end of 1862 not a taluq or town in the entire length and breadth of the Presidency remained unoccupied by the new constabulary. Not a single soldier remained away from the regimental head quarters, in consequence of being employed on semi-civil duty. When disturbances took place in the hill country of the Ganjam district, tranquillity was restored by the Government Agent with the aid of the Police only. In like manner a similar outbreak in the Vizagapatam district was vigorously dealt and order was restored without the military. In accordance with the system of a purely civil police force, the whole of the jails and treasuries throughout the Madras Presidency have been guarded, and escorts of treasure have been supplied, by the new constabulary. During 1861-62 they escorted £6,000,000 of treasure, and guarded in the several jails of the Presidency upwards of 7,000 prisoners. The average cost of the Treasury guards is found to amount to 1½ pie per hundred rupees on the gross revenue guarded and escorted, while the cost of jail guards averages rupees 1-8 per mensem for each convict. The latter charge will be reduced by more than one-third when large Central Jails are completed. In addition to the ordinary jail duty, the police guard and superintend the convict labor of 150 subsidary jails, without any, increase to the establishment or cost to the State. The Meriah Sacrifice Agency, which cost the State a lakh of rupees annually, has been abolished, and its object secured by the employment of a special police force at the cost of 36,000 rupees per annum. Since the introduction of the new system, the graver kinds of crime have been succesfully met. The total cost of the Madras constabulary is 35½ lakhs. For this sum of 3½d. per head per annum, security of life and property is afforded to a population of nearly twenty-three millions, scattered over an area of upwards of one hundred and forty thousand square miles.

CONSTANTINE. See Aden, p 29.

CONSTANTINOPLE, a town in Europe, the capital of the Turkish dominions, which extend to the shores of the Indian Ocean. See Arabia, Ajem, Irak, Jews.

CONSTANTINOPLE ERA subsisted

during the Greek empire, and in Russia till the reign of Peter the Great.

CONSTELLATION. See Astronomy.

Burj Hind. | Ta-ya Burm.

CONTINENTS. Nek-hkat. Burm. In hindu geography, the continents connected with each other are four, viz., Uturukuru, Purwawidesa, Aparagodana, and Jambudwipa. —*Hardy, Eastern Monachism, p.* 435.

CONTINGENT, a term applied in British India, to designate the armies which, by treaty, the feudatory sovereigns keep. The Mysore contingent of 4,000 soldiers has been enrolled since the treaty of Seringapatam. The Nizam of Hyderabad's contingent of 8,000 men, in six regiments of infantry, four of cavalry, and four batteries of artillery was established by the treaty of 1798. The contingent of H. H. the Maharajah Scindiah, of 5,000 cavalry, whose capital is Gwalior, was arranged for by the treaty of Gwalior of November 1817. In the same year a contingent of 300 men was arranged for from the Gaekwar at Baroda. The treaty of Bhopal of February 1818, provided for a contingent of 600 cavalry and 400 infantry, and by the treaty of the 6th January 1818, maharajah Man Singh of Jodhpore undertook to furnish 1,500 cavalry for service with the British Indian army. The Indore contingent of 3,000 cavalry horses by the maharajah Holkar by the XI article of the treaty of Mundesour was agreed to be provided ready for service.

CONULEUM. See Elæaginaceæ.

CONUS, the cone genus of Gasteropodus Mollusca, founded by Linnæus. The species are found in southern and tropical seas, and are very numerous. Lamarck records 181 recent; and several of these include varieties.

CONUS TEXTIILIS, Linn., found at Aneiteum of the New Hebrides, bites and injects a poisonous acrid fluid into the wound, occasioning the heart to swell and often endangering life.

CONVENT OF ST. CATHERINE, is on the Jib'l Musa.

CONVOLVULACEÆ. R. Br. an order of plants, the bind weed tribe, in which there are about 28 genera and more than 450 species, of these there are in the West and East of Asia.

5 Rivea.
31 Argyreia.
1 Blinkworthia.
4 Calonyction.
2 Sepistemon.
1 Skinnera.
4 Breweria.
2 Moorcroftia.
2 Quamoclit.
3 Batatas.
3 Pharbitis.
53 Ipomæa.
4 Porana.
1 Cressa.
6 Convolvulus.
4 Aniseia.
1 Calystegia.
1 Hewittia.
2 Neuropeltis.
2 Evolvulus.

CONVOLVULUS. Wight, in Icones, gives Convolvulus bicolor, calycinus, capitulatus, glomeratus, hirtus, microphyllus, pentaphyllus, rhynospermus, and rufescens, several of the species have been transferred to other genera.

C. batatas, *Mich.* syn. of Batatas edulis, *Choisy.*

C. bauhiniæfoliis, *Salisb.* syn. of Ipomæa pescapræ, *Sweet.*

C. braziliensis, *Linn.* syn. of Ipomæa pescapræ, *Sweet*

C. chinensis, *Ker.* syn. of Convolvulus arvensis, *Linn.*

C. edulis, *Thunb.* syn. of Batatas edulis, *Choisy.*

C. esculentus, *Spren.* syn. of Batatas edulis, *Choisy.*

C. gossipifolius, *Spreng.* syn. of Batatas paniculata, *Choisy.*

C. gemellus, *Linn.* syn. of Ipomæa gemella, *Roth.*

C. grandiflorus, *Linn.* syn. of Calonyction grandiflorum, *Choisy.*

C. gossipifolius, *Spreng.* syn. of Batatas paniculata.

C. hirsutus, *Roxb.* syn. of Batatas pentaphylla, *Ch. W. Ic.*

C. insignis, *Spr.* syn. of Batatas paniculata, *Choisy.*

C. latiflorus, *Desrous.* syn. of Calonyction grandiflorum, *Choisy.*

C. macrocarpus. See Convolvulus arvensis

C. malcomi, *Roxb.* syn. of Convolvulus arvensis, *Linn.*

C. maritimus, *Desrous.* syn. of Ipomæa pescapræ, *Sweet.* See C. Arvensis.

C. nil, *Linn.* syn. of Pharbitis nil. *Choisy.*

C. nervosus, *Burm.* syn. of Argyreia speciosa, *Swt.*

C. paniculatus, *Linn.* syn. of Batatas paniculata, *Choisy.*

C. roseus, *H. B.* syn. of Batatas paniculata. *Choisy.*

C. speciosus, *Linn.* syn. of Argyreia speciosa, *Swt.*

C. soldanella. See Convolvulus arvensis.

C. turpethum, *Linn.* syn. of Ipomæa turpethum, *R. Brown.* Its root is the Indian Jalap.

CONVOLVULUS ARGENTACEUS.

Silver-leaved Convolvulus | Sumundersokh. Hind.

Cultivated as a flower: the leaves and juice of the plant are acrid, and applied by the natives to stimulate sores. The seed is used along with salep misri as an aphrodisiac: the half roasted leaves applied to the skin are escharotic: one tola of the seeds is a dose.—*Gen. Med. Top.*

CONVOLVULUS ARVENSIS. Linn.

C. Chinensis *Ker.* | C. Malcomi *Roxb.*
Corn Bindwood. Eng. | Hirn-padi, Hind.

It is native throughout Europe in sandy fields and by roads, also in China, Persia, and some parts of India, is abundant as a weed all over the plains of the Punjab, and up to 10,000 feet in the Punjab Himalaya. The officinal hirnpadi (deer's foot) appears to be from this plant. It is said to possess a purgative quality, as also C. soldanella, C. maritimus, and C. macrocarpus.—*Eng. Cyc. page* 140. *Dr. J. L. Stewart.*

CONVOLVULUS BI-COLOR.

Two-coloured convolvulus.		Zurd-kulmi.	HIND.

A yellow and buff flowered Convolvulus cultivated in gardens.—*Gen. Med. Top. p.* 181.

CONVOLVULUS BRAZILIENSIS, has an edible root.

CONVOLVULUS DIANÆ.

Moonlight convolvulus.		Chanda	HIND.

Cultivated in gardens, the large fragrant, white flowers open in the evening and fade in the morning.—*Gen. Med. Top. p.* 180.

CONVOLVULUS GANGETICUS : Pink flowered Convolvulus. Cultivated as a flower, and also abundantly wild with several varieties of different colours.—*Gen. Med. Top. p.* 180.

CONVOLVULUS MALABARICUS.

Paymoostee,	TAM.	Kattu kelungu,	RHEEDE.

A native of the Malabar coast and of Cochin China, considered by farriers in India a good horse medicine.—*O'Shaughnessy, page* 506.

CONVOLVULUS PLURICAULIS. CHOIS

Porprang,	HIND.	Gorakh panw,	HIND.
Baphalli,	„	Dodak,	„

Common throughout the Punjab plains. It is eaten by cattle, and is reckoned cooling, and, used as a vegetable or given in sharbat. *Dr. J. L. Stewart.*

CONVOLVULUS REPENS. LINN.

Wulhe keeray,	TAM.	Vullie keeray,	TAM.

Ainslie's Mat. Med. p. 258. See Kulmee sag.

CONVOLVULUS REPTANS.

Kulmi shak,	BENG.	Tootu kura,	TEL.
Mandavalli	CAN.	Olus vagum *Rumph Rheede*	

A native of standing sweet waters, very common in India, affords a milky juice, which when dried, is nearly equal to scammony in purgative efficacy. The tops and leaves are eaten in stew by the natives.—*Ainslie. O'Shaughnessy. page* 506.

CONVOLVULUS SCAMMONIA. LINN.

Sukmunia,	ARAB.	Mehmodeh,	HIND.
Sugmoonia,	„		

A native of Syria and the Levant, recently discovered by Dr. Burn in Kaira in Guzerat. The proper juice when dried is called Scammony. The scammony of Aleppo occurs in fragments, scammony is often adulterated with concrete juices of a similar kind, with flour, chalk, sand, and earth. The most abundant harvest of scammony is in Smyrna and Aleppo. There are several modes of collection, which gives rise to corresponding commercial varieties. The Arab name of this drug, Ul Sugmoonia, signifies the *purgative*. Several old preparations called " diagredium" (*διακρηδιον*) are mixtures of scammony with sulphur and liquorice, and are now no longer used.—*O'Shaughnessy, pages* 500, 501.

CONWAY, an officer of the Madras army, who rose to the rank of Colonel. He was selected while quite a young man, to be adjutant general of the army of Madras, at a time of trial, when the European officers had become disaffected, and he held that post up to the year 1837, when he died of cholera on the banks of the Kistnah, en route to be brigadier of the Hyderadad subsidiary force, and he was buried there. The army and the public erected a tablet to his memory inscribed—

The Soldier's Friend
CONWAY,
Adjutant General,
obiit
13th May 1837.
Erected by the
ARMY
and by the
PUBLIC.

CONYZA. a genus of unimportant plants of the order Matricariaceæ.

- C. alopecuroides of Martinique, diuretic. syn. Pterocaulon alopecuroideum, *D. C.*
- C. anthelmintica. *Linn.* syn. of Vernonia anthelmintica. *Willd.*
- C. balsamifera of India. Soomboong of the Javanese. syn. Blumea balsamifera. *D. C.* a substitute for sage.
- C. grandis. syn. of Blumea grandis.
- C. cinerea. *L.*, *C.* mollis. *Willd.* and C. purpurea. *Linn.* syn. of Vernonia cinerea. *Less.*

COOCH BAHAR, is a native state ruled by a rajah subject to the supervision of a British Resident. It is situated between Bengal and Assam, on the N. E. frontier of British India, and is separated from the highlands of Bhotan by the Dooars. Fallacotta is the most central town, for the Jungsta, Chamoorchee, Bala, Bunna, and Beygoo passes into Tibet and Bhootan. The abolition of slavery in Cooch Behar has recently been formally proclaimed. Up till this proclamation, if a ryot or peasant owed a sum of money, and was unable to satisfy his creditor, he was compelled to give up his wife as a pledge, and possession of her was kept until the debt was discharged. It sometimes happened that the wife of a debtor was not redeemed for the space of one, two, or three years ; and if, during her residence with the creditor, a family should have been the consequence, half of it was considered as the property of the person with whom she lived, and half that of her real husband. The country has a most wretched appearance, and its inhabitants are a miserable and puny race. The lower ranks without scruple formerly disposed of their children for slaves, to any purchaser, and for a very trifling consideration ; nor was the agency of a third person ever employed. Nothing was more common than to see a mother dress up her child, and bring it to market, with no other hope, no other view, than to enhance the price she might procure for it. *Turner's Embassyp.* 11, *Treaties, Engagements, and Sunnuds. Vol. VII. p.* 367.

COOKIA PUNCTATA, RETZ.

Quinaria lansium, *Lour.*

Whong-pi CHIN. | Wham-pi CHIN.

This fruit tree is a native of China and the Moluccas. It is a middle-sized tree bearing an edible fruit about the size of a pigeon's egg, yellow on the outside. The flowers are small, white and fragrant. The yellow and very agreeable fruit has a white pulp, rather acid but sweet, and which is much esteemed as an article of diet in China and the Archipelago.

There are two or three species, natives of the East, all known as Wampee trees. Hwangpi, or whampee, means yellow skin. In India it bears its rough skinned fruit in April and May : it grows in clusters, containing a sweetish acid juice, resembling black currant in flavour. The tree has very dark green shining leaves, it has ovate, lanceolate, leaflets, acuminated, hardy, unequal at the base, is rather ornamental, and requires very little care.—*Voigt. Riddell.*

COOKING WAGON. This is constructed somewhat like a battery caisson, so that the parts can be unlimbered and separated from each other. The "limber," or forward part, bears a large chest, which is divided into compartments, to contain coffee, tea, sugar, and corn starch, with a place also for two gridirons and an axe. From the rear portion rise three tall smoke-pipes, above three large boilers, under which there is a place for the fire, and under the fire a box for the fuel. Each boiler will hold fourteen gallons ; and it is estimated that in each one, on the march, ten gallons of tea, or coffee, or chocolate, could be made in twenty minutes—thus giving ninety gallons of nourishing drink every hour.

COOLEE, a name in use in British India to designate any labouring man, working for hire ; also, the hire itself. The word is a corruption of the Tamil word Woleeya or Wozheeya Karen, a servant. Under this designation great numbers of the labouring classes of India have emigrated to Ceylon the Mauritius Bourbon, and the West Indies The mortality on the voyage was so considerable, ranging up to 19 per cent. that emigration agents were appointed at the Indianports under acts of the Council to control the emigration.

COOLING MIXTURES, without Ice.

	Parts.	Degree of cold.
Nitrate of ammonia, water, ... each ...	1	...... 45°
Nitrate of ammonia, carbonate of soda, water each	1	.... 57°
Phosphate of soda, ...	9	.... 62°
Sulphuric acid, ...	4	
Sulphate of soda, ...	8	.... 50°
Muriatic acid, ...	5	
Sulphate of soda, ...	5	.... 47°
Dilute sulphuric acid, ...	4	
Phosphate of soda, ...	9	.... 47°
Nitrate of ammonia, ...	6	
Dilute sulphuric acid, ...	4	

The fall of the thermometer is here calculated from 50°, and the full effect is not produced unless the materials employed, and the substance acted upon be previously cooled to that point.

Cooling mixtures with Ice.

	Parts.	
Pounded ice or snow, ...	2	From any temperature to—5°
Common salt, ...	1	
Snow or pounded ice, ...	12	Ditto........... —25°
Common salt, ...	5	
Nitrate of ammonia, ...	5	
Snow, ...	3	From.....32° to—23°
Dilute sulphuric acid, ...	2	
Snow, ...	8	Ditto........... —27°
Muriatic acid, ...	5	
Snow, ...	7	Ditto..........—30°
Diluted nitric acid, ...	4	
Snow, ...	4	Ditto ....—40°
Muriate of lime, ...	5	
Snow, ...	2	Ditto, ...—50°
Cryst, muriate of lime, ...	3	
Snow, ...	1	Ditto ......0° to—60°
Cryst, muriate of lime, ...	2	
Snow, ...	1	Ditto ....40° to—73°
Cryst, muriate of lime, ...	3	
Snow, ...	8	Ditto ... ...68° to—98°
Diluted sulphuric acid, ...	10	

—*O'Shaughnessy, page* 46.

COONAREE. CAN. Cathartocarpus fistula. *Pers.*

COONCHEE KOOREE, a tribe of the Korawa.

COONCH GARROW. See Garo.

COONOOR, in 11° 22′ ; 76° 45′, in the Nilgiri, S. E. of Ootacamund. The hotel is 5,960 ft. above the level of the sea ; the mean height of the Jakatalla cantonment, now called Wellington, is 6,100 ft. It is a favourite sanitorium for Europeans. *Baik. Schlag.*

COONR-MOONDLA or Cunr mundla is the name given at Benares to the day on which the seed sowing concluded, in the Lower Doab and Beiswara, it is generally called Coom Bojee and Hurier. It is usual amongst the hindus to devote this day to festivity, and amongst other ceremonies, to decorate the ploughs, and to make the residue of the seed-corn into a cake, which is partaken of in the open field, and in part distributed to brahmins and beggars. A similar practice prevails in great Britain when the seed-cake and furmenty of All-Hallows are in request. In Tusser's homely verses we read—

Wife, sometime this weeke, if the wether hold cleare,
An end of wheat-sowing we make for this yeare,
Remember you, therefore, though I do it not,
The seed cake, the pasties, the furmenty-pot.

Elliot. See Duleajhar, Huriur, Hurpoojee.

COOPER, Sir Frederick, K.C.S.I, a Bengal Civil servant, who did much good service in the Punjab, during the revolt and rebellion of 1857-58.

COOPAY KEERAY, TAM. Amarantus polystachyus. LIN.

COORAN—? A light brown coloured Penang wood, used for planks for building.

COORBAN. See Kurban : Sacrifice.

COORG (Codagu) is a British district, administered by a Superintendent under the Chief Commissioner of Mysore. It is situated in L. 12° 26′ 21″, and L. 74° 30′ 46″. It is bounded on the north by the Hemavati river; on the south by the Tambacheri pass; on the west by South Canara and North Malabar, and on the east by the Mysore country. It is 60 miles long and 40 broad. Coorg was surveyed by Lieutenant Connor of the Royal Engineers in 1817, who has written a very interesting memoir of the survey. Of 2,400 square miles, 547 are cultivated, 1,705 culturable and 148 unculturable. There are 168 miles of road. The rain-fall varied in 1868-69 from 68·09 inches at Kembu Kolli in the south east to 95·25 at Mercara, the capital. The maximum temperature at 3 P. M. in May was 83° and the mean 72°. The minimum in December was 53° at 6 P. M.' and the mean 65° The aspect of Coorg presents an entire forest, the long and narrow cultivated valleys enclosed within it, serve but to render those vast woods more striking. The whole of the eastern boundary presents a remarkable line of demarcation exhibiting an almost uninterrupted and impervious wood from the Burmagery hills, till reaching the Cavery; this space is wholly uninhabited. Advancing westward the woods decrease in density as the country improves in cultivation, and become gradually thinner till reaching the Western Ghauts, the immediate summits of which, partially bare of wood, are clothed with a luxuriant herbage. The Mallimbi Peak lying on the confines of Yelusavira and Yeddavanad is an exact cone, Coorg Proper gives birth to the Cavery and two principal streams tributaries to it, the Soornawutty on the north and Latchmunteert on the south. Neither of these streams are navigable in Coorg. In its area of 2,400 square miles, it has a population of 115,357. There are thirty-five judicial and revenue sub-divisions, and 507 villages. There are twenty-three magistrates of all sorts. The total cost of local officials and police of all kinds was Rupees 1,14,578 in 1868-69. In that year the land revenue was Rs. 1,68,108 and the gross revenue Rupees 5,08,143. The chief towns and their populations are

Mahadeopete...	3,825	Fraserpete ...	1,109
Virajapete ...	2,889	Sanivarsante...	498
Somavarpete...	905	Kodlipete ...	690

The prevailing languages are Coorg, Canarese, Malayalum, Tamil, Tuju, Hindustani and English. There are about 40,000 native Coorgs scattered throughout the country, and the number is believed to be decreasing. The Coorg race are called Koodaga. They are a tall, muscular, broad-chested, well favoured race of mountaineers. They are a handsome and well made race, and are far superior in physique to the inhabitants of the plains, whom they greatly despise. They are also far advanced in civilization and are very intelligent. The morals of the Coorgs are scarcely any better than those of most other races, and the vice of drinking has a deep and widely-spread hold upon them. They are divided into thirteen castes. They marry at a ripe age, but the wives of brothers are considered as common property. They generally retain the old devil-worship of the Scythian Dravidian race, from which they are descended. Nearly all official appointments (of which there are a very large number) under the Superintendent, are held by Coorgs, including the highest one of Assistant Superintendent. Mercara is beautifully situated in almost the very centre of the country, and is 4,500 feet above the sea-level. A regiment of native infantry is always quartered in Mercara, in a fort which was formerly the rajah's palace, and which is a very spacious and substantial building. It is supposed to have been built for the rajah by an Italian, who is said to have suffered the usual fate of such pioneers of civilization, by being bricked up in a wall as soon as the building was finished. Verajenderpet is situated on the road leading to Cannanore from Mercara, and is 20 miles from the latter place. There is a cross road from Mysore, which joins the road to Cannanore a few miles below Verajenderpet, and along this road passes all the direct traffic between Mysore and the coast. Fraserpet is situated on the road to Mysore from Mercara, and it is also 20 miles from the latter place. The river Cauvery runs past Fraserpet, and forms the boundary between Coorg and Mysore. The S. W. monsoon, which always rages throughout Coorg from June to November, is scarcely felt at Fraserpet, and on this account the European and native officials reside there during the wet season, returning to Mercara as soon as the monsoon ceases. The chief products of the country are rice, cardamoms and coffee ; and experiments have been made in the cultivation of tea, cinchona, and cotton. Cardamoms grow wild in the jungles, and are merely gathered, dried and exported. In 1833, cruelties, carried on for a long series of years by the rajah, brought on him a war by the Indian Government, and afrer a series of operations, Coorg was captured after a battle on the 8th April 1834. He was of the lingaet hindu sect. It was at one time hoped that the climate would be suitable for coffee growing, but much of the money invested there by Europeans, in that branch of agriculture about a quarter of a million sterling, has been lost. The bug, the great elevation, and heavy rain have been the great opponents to its success. One estate of 200 acres has been stated to have yielded 100 tons of coffee in a year, which is ten cwt. to the acre. The greatest yield ever obtained in Ceylon, was 15 cwt. The greater number of estates were opened on the ghat leading from Mercara to Mangalore, but the crops were yearly destroyed by the bug. The rainfall on this ghaut is probably greater than in any other part of Coorg, and appears to nourish the "bug," and to cause a rot amongst the foliage of the coffee trees, destroying alike branches, leaves, and fruit. The "bug" also ravaged the Cannanore Ghat. Scarcely an estate in Coorg can be said to be quite free from the scourge, those situated on the ghats suffer much. See Bug. Coffee, India, p. 321, 326, Polyandry.

COOROOKOO OIL, OR Brumadundoo. Argemone Mexicana.

Brumadundoo yennai, TAM.	Oil of Prickly Poppy, or Jamaica yellow thistle, ENG.
Brumadundi Noona, TEL.	
Faringi datura ka tel, HIND.	

This pale yellow, limpid oil, may be obtained in large quantities from the round corrugated seeds of the prickly poppy, Argemone Mexicana, which was originally introduced from Mexico in ballast, but now flourishes luxuriantly in all parts of India. It is sometimes expressed by the natives and used in lamps, but is doubtless adapted to other and more important uses. In North Arcot it costs from Rs. 1-14-0 to Rs. 2-1-0 per maund—*Madras Exhibition of* 1855. See Argemone Mexicana.

COORMEE, OR CURMI. A large class of cultivators in the eastern and central portion of Bengal, few in Delhi and the Upper Doab. Under the different names of Coormee, or Koormee, Kumbhi, Kunabi, Koombhee, they extend throughout the greater part of Hindostan, Berar, and the Western Decan. They are famous as agriculturists, but frequently engage in other occupations. The Coormee women, like the Jatnee, assist the men in husbandry, and have passed into a proverb for industry.

Bhulee jat koonbin kee k'hoorpee hat,'h
K'het nirawen apne pee ki sat,h.

The Coormee of these provinces are said to have seven sub-divisions, which are usually enumerated as K,'hureebind, Puturya, G,'horchurha, Jyswar, Canoujea, Kewut and Jhooneya.—*Elliot.*

COOROOMBRANAAD. A district of Malabar. See Curumbar, India, Kunmaler.

COOROOMBAR, a race of Wynaad. They are very docile, quick of imitation, and slavishly submissive to their moodely or head. This individual, like a patriarch of old, exercises undisputed power over his own family, numerically containing about twenty or thirty beings. Those employed by the coffee planters are a little civilized, appreciating the comforts of life in a slight degree higher than their more savage brethren. They erect rude huts for the habitation of themselves and family, which are built on elevated ground, surrounded by jungles, and about six in number ; they touch one another, and the whole present the form of a crescent. One larger than the rest, styled the cutcherry, is erected in the middle in the shape of a hall, for the sojourn of casual strangers : it is dedicated to their household deity, and the place cannot be contaminated by a shoed foot. They may be said to be ephemeral residents in these habitations ; the presence of a suspected stranger in their vicinity, sickness, or other trifling but natural cause, will make them emigrate from one place to another, generally within the same district, and sometimes for miles away, but always preferring lonesome localities and dense jungles. The Cooroombar does not stop for two weeks together in the same place ; hence though some are partly civilized, they have not yet been brought into a settled mode of life. The extent of Government lands in Wynaad is not known, but Government also possess some forest lands towards Periah and Teriate, and in several spots over Wynaad. In the teak belt are several bands of Coorumbars, some of the Jani, and others of Moolly caste ; they amount to about

Coorumbur....	200	Panniar and Pooliar	100
Gurchea.......	50	Chetty and Squatters	50

The former live entirely in the forest. They are the only axe men, and without them it would be difficult to work a forest. The Coorumbur, through their headmen, are held responsible, and the Chetty are also responsible for their Panniar or farm slaves. The Coorumbur services are constantly called for by the wood contractor and the planter. They will not leave their haunts in the forests for any time. *C. H. S. in Newspaper. Cleghorn Forest Report.*

COOROOMINGA, a beetle, the Butocera rubus, which penetrates the trunk of young cocoanut trees near the ground, and deposits its eggs near the centre. The grubs eat their way up and destroy the tree.

COORU, one of the great families who settled in Hindustan. Many of them dispersed over India and Central Asia, amongst whom may be placed the Ootooru Cooru (Northern Cooru) of the Pooran, the Ottorocuræ of the Greek authors.

COOSY, a tributary to the Hoogly, also written Cosi and Kosi. It rises in the Ramghur district, lat. 23° 35′, lon. 85° 58′ runs a circuitous course, but generally S. E., into the Hoogly. Its length is 240 miles.

COOT. Fulica atra.

COOTANAD, a district of Malabar. See Kummaler.

COOTE, Sir Eyre, K. C. B., a British officer who served in the Carnatic from 1759, during the contests for supremacy between the British and the French. He was out manœuvred on the Palar river, but in 1760, beat M. Lally at Wandewash, recovered all the places in the Carnatic, and captured Pondicherry. He was a hardy, energetic soldier. He arrived in India in 1759, recaptured Wandewash, and in 1769 defeated MM. Lally and Bussy.

COOTTOOPASSALEI KEERAY. TAM.

Oopodaki	SANS.	Poti Batsala koora	TEL.

This is the Basella lucida. *Lin. Ainslie p.* 253.

COPAIFERA. Several species of this genus in the W. Indies yield Balsam of Copaiva.

COPAIFERA BIJUGA. See Copaiva.

COPAIVA. COPAIBA.

Baume de Copahu	FR.	Capayva	SP.
Kopaiva balsam	GER.		

Copaiba is the fluid resinous exudation of several species of Copaifera, of C. Langsdorffii. *Dec.*, of C. officinalis. Copaiba was first described by Marcgraaf and Piso in 1643; but the species is uncertain, as the latter gives no figure, and the former only one of the fruit (supposed by some to be of Copaifera bijuga *Willd*). Jacquin, in 1763, described a species of Copaifera from Martinique, which he named C. officinalis, and which probably yields the copaiba obtained from the West Indies. It has, however, been ascertained that several species yield the copaiba of commerce. The wood-oil of some species of Dipterocarpus yields a substance closely resembling copaiba. *Faulkner. Royle, page* 364. See Dipterocarpus lævis.

COPAIVA LANGSDORFFII. See Copaiva.

COPAIVA OFFICINALIS. See Copaiva.

COPAL. This important resin exudes spontaneously from two trees, Rhus copalinum, and Elæocarpus copalifer, the first being an American and West Indian, and the second an East Indian tree. Another variety of copal is obtained from the coasts of Guinea, and several species of Hymenœa, on the Amazons, are said to produce kinds of copal. The American copal occurs in commerce in flat fragments; whereas the East Indian is generally obtained in roundish masses. The latter furnishes the finest varnishes. Fresh essence of turpentine dissolves it completely, but old turpentine will not do so. It is stated that essence of turpentine, digested upon sulphur, will dissolve double its own weight without letting any fall. The oil of rosemary also dissolves copal with great readiness. An excellent varnish may be made by dissolving one part of copal and one of essence of rosemary, with from two to three parts of pure alcohol. Copal is largely imported into Bombay from Zanzibar, the major portion of which is re-exported to England, and occasionally to France and Calcutta. Copal is liable to be confounded with anime, when the latter is clear and good, but the solubility in alcohol furnishes a useful test—the anime being readily soluble in this fluid, while copal is sparingly so. Copal is also brittle between the teeth, whereas anime softens in the mouth.

COPAL VARNISH is a solution of the copal gum resin in equal quantities, and linseed oil, oil of turpentine, spirits of wine or alcohol; it is used for japanning snuff-boxes, tea boards, and similar articles. Copal varnish and amber varnishes are also much employed by the artist and by the photographer for the preservation of their works. The latter is perhaps superior to any of the other. Far less attention is paid to the peculiar properties of varnishes than could be desired. The artist employs a varnish for the purpose of securing his labours from the combined influence of light and air; but it must never be forgotten that he is employing a material which is itself constantly passing by the absorption of oxygen, into a state of disintegration. We know that many varnishes rapidly change colour, and that some are more liable to crack than others are. A few preliminary experiments may be made of great value. For example, if portions of various samples of varnish are spread upon a plate of glass, and dried, we have the means of determining many important points. Cover one half of the varnished glass with an opaque screen, and expose the other half to sun-shine day by day; by placing the glass upon a sheet of colourless paper, it will be seen whether any colour has been imparted by the action of the sunshine. After a few days, if the whole arrangement is placed in spirits of turpentine, the varying degrees of solubility may be noted; and from this may be determined the rate at which, under ordinary circumstances, oxygen is absorbed—the rate, indeed, at which the elements of destruction proceed. Thus a considerably greater degree of permanence may be secured, than when the artist, trusting only to the varnish-maker, employs a preparation about which he knows nothing.—*Robert Hunt, in London Art Journal of December*, 1858. *Binglow* III. 83.

COPALITE, or mineral copal, is found in ligniform pieces near Quilón, under laterite. It is also dug out of the earth in the western part of tropical Africa, from sandy soil with thorny bushes, and the only large tree growing is the Adansonia. The digging is from two to ten feet or more, and it is found in various shapes and sizes, from a hen's egg to a child's head. Of the three colours, yellow, red and white, the first makes the best varnish, and brings the highest price.

COPALM BALSAM is a product of the Liquidamber styraciflua.

COPARI, properly Cobbari tengai, TAM. Copra, kernel of cocoa nut.

COPAULDROOG, taken by storm on the 14th May 1819.

COPE, Henry, wrote on the ruined city of Ranade, Sindiah's dominions, in Bl. As. Trans. 1848, vol. XVII. 1079.—On the ruined city of Ferozabad. Ibid, 1847, vol. XVI.; 1848, vol. XVII. 971.—On the silk manufactures of the Punjaub Lahore Agri-Trans. 1852. See Silk.

COPERNICIA CERIFERA. See Carnauba.

COPI-COTTA. SING. Coffee.

COPIKACHU, also Atmagupta. SANS. Mucuna prurita.

COPPER.

Nehass	AR.	Tambaga	MALAY.
Ky-a-ni	BURM.	Miss	PERS.
Tung	CHIN.	Miedz	POL.
Kobber	DAN.	Cobre	PORT. SP.
Koper	DUT.	Krasnoimjed	RUS.
Cuivre	FR.	Mjed	„
Kupper	GER.	Tamraka	SANS.
Tamba	GUZ.	Tamra	„
Nehesh	HEB.	Kopper	SW.
Rame	IT.	Shembu	TAM.
Cuprum	LAT.	Tambram	TEL.
Venus of the ancients	„	Raggi	„

Copper, gold and silver, are the most anciently known of the metals. Copper is abundantly diffused in nature, being found native as an oxide, a sulphuret, a sulphate, carbonate, arseniate, and phosphate. Copper is found in Persia, India, Sumatra, Borneo and Japan. Copper ore in the form of sulphuret is chiefly abundant in Rarogurh in Shekawattie: near Ajmeer the carbonate of copper is found in small veins, and in connexion with ores of iron.—(*Genl. Med. Top.* p. 169.) A silicate of copper occurs in Nellore collectorate, but not in workable lodes. Copper ores are found in the Jeypoor dominions, and in the vicinity of Nejeebabah, Nagpore and Dhumpore, places lying betwixt forty and fifty coss east of Sirinagur; two copper mines are worked during eight months of the year. A copper mine was discovered by Mr. J. B. Travers, then Collector of the Ongole district, betwixt Poodala and Ardinghie; which, for a short time, attracted notice, but seems to have fallen into disuse. The produce was a variegated purple ore, containing a considerable portion of iron. Captain Arthur of the Corps of Engineers mentioned to Dr. Ainslie, that the green carbonate of copper called malachite, is a product of Travancore, but of late this has not been heard of: the copper ore of Japan is certainly the finest in the world, and is an article of trade from the island. Copper is also found in Tibet, in the Burman dominions, in Nepaul, and in great abundance in Sumatra, where it is by all accounts combined with much gold. By Le Gentil's description of thePhilippine islands, this metal is common. Dr. Helfer says. that the copper on the Lampei Islands is worthy of attention. Mr. O'Riley states that specimens of copper ore have been brought from several islands of the Mergui Archipelago, all of the same character, viz, the grey copper ore containing from forty to fifty parts of the metal in combination with antimony, iron, and sulphur. He has also traced the existence of the sulphuret of copper on the Ataran; and Dr. Mason had a fine specimen of the green carbonate, or malachite, brought him by a Burman, who said he received it from a Karen who represented that it was found near the head-waters of the Ataran; and other natives have assured him that the same mineral exists up the Salwen. The blue carbonate of copper is seen in the same specimen united with the green carbonate. The natives say it is found in Province Amherst, but he has seen it only in specimens from Cheduba near the coast of Arracan. (*Mason*). Copper ores have been found in Sumatra, Celebes, and Timur. In the two former, mines of it are said to be worked, but if such be the case, even their locality has certainly never been shown. The probability is that this metal has always been, as it now is, imported. The prevailing name for it is tambaga, a corruption of the Sanscrit tamra. (*Crawfurd Dict. page* 116). It has been discovered in the island of Borneo, and it has been long known to exist in Sumatra and Timur. The utensils made of this metal in those islands always contain some iron, and the bars or cakes into which it is cast when sold for unalloyed copper, require much labor to make them pure and malleable. The copper found in Japan contains gold in alloy; it occurs in the market in small red bars, six inches long, flat on one side, and convex on the other, weighing 4 or 5 lbs. each; this copper is the most valuable of any found in Asia. The Chinese and Dutch exported upwards of 2,000 tons annually. South American copper is brought to the China market, and from England and the United States, but it is scarcely ever landed; much of that in slabs is sent on to India, and that in sheets, rods, and bolts is used by the foreign shipping. There is a natural alloy found in China, known under the name of white copper, which is used by the natives in great quantities, and prevents the consumption of foreign copper. The constituents are not known, but copper and iron are probably the chief. It is a singular mineral, seems peculiar to China, and has been supposed by Dr. Black to owe its distinguishing colour to an alloy of nickel, (*Ains. Mat. Med. page* 53.) It is used for dish covers, candlesticks, tripods, plates, &c. &c., which when new and polished, look almost as well as silver. Acetate of copper (arugo, verdigris) is, like the sulphate, a common bazar article in India. Verdigris is prepared on a large scale by strewing copper plates with grape husks. During the fermentation of the traces of sugar in the husk, the copper combines with oxygen, and the oxide with acetic acid formed by the grape sugar. The process is extremely tedious. A very good article can be made by using tamarind pulp instead of the grape.—(*Beng. Phar. p.* 324.)

Copper has been discovered in Singhana: in mines in Kumaon and Gurwhal, at Pokree and Dhanpore in the territory of Luz near Bela: in mines of Deoghur: at Darjeeling, at Ajmir. Copper mines occur at Papulee, Pringlapanni, Murbuggettee, and old mines at Kerraye, Belar, Raie, Seera, Toma Cottee, Dobree and Dhunpore. Rich veins of copper ore are said to occur about 80 miles from Amarapura. (In the Beng. As. Soc. Jour. No. 1 of 1851, p. 1, mention is made of the copper of Deoghur or Byjnath, a small town in zillah Beerbhoom. The surface veins run east and west, and present the ore in irregular masses of ⅝ of an inch broad, so much corroded by atmospherical influence as to appear in a soft, friable, red, yellow, and liver-coloured or garnet-coloured earth, but upon digging a couple of feet below the surface of the ground, the veins become a compact liver-coloured mass, spangled with shining particles of copper; the whole enclosed in a soft friable apple-green, yellow or white felspathic rock. Traversing the copper from north to south small veins of lead appear, which occasionally form the containing walls to the copper. Mr. Vincent traced the vein of copper for about 100 feet east and west, and dug to the depth of two feet only. With the aid of coal, dug from Banslee Kullah in the Rajmahal hills, he smelted some of the ore, which gave a return of 30 per cent. of good copper; inferior specimens, mostly water-worn pieces picked up on the surface, gave 25 per cent.

The mountainous parts of Nepaul are rich in mines of iron and copper. The produce of the former is smelted in other hills than those where the ore is found. The copper is of a very superior kind, and before the opening of a trade between England and India, was preferred for consumption in the territories of the king of Oudh to that exported from Britain. Its supersession by the European product, doubtless arose from the difficulty and expense of transportation through a mountainous tract, having no navigable rivers, and the ignorance of the Nepaulese in the arts of mineralogy and metallurgy. Lead mines, yielding also a proportion of silver, are to be found in Moulkote, and it is supposed that there are gold mines to the north, though as yet no traces of gold have been discovered excepting in the beds of the torrent which rush through Kachar to the eastward. Copper has been pointed out near Beila, in the province of Luz, on the western frontier of Lower Sind, by Captain Del Hoste and Captain Harris; in Kumaon, by Lieutenant Gasfurd and Captain Durand; at Porkee and Dhanpoor, by Captain Richards; at Almorah and in Affghanistan, by Captain Drummond. It is said to have been worked in Cutch, and to occur on the Neilgherries and near the Poondah Ghaut. (*Smith's Nepaul. Bombay Times.*) At Kotah, the coal-field is about 1½ mile in width from east to west, that is, so much of it lies within British Sigrowlee. To the north it reaches to within two miles of Oondhee, or about ten miles, and although not free from faults and dislocations, ten miles west of Palgunge (that village being eight miles south of Kurhurbaree) near to the village of Burgundah, copper ore is to be found. The people at the village have a tradition that long ago copper in large quantity was obtained from the mine.

A shaft was once sunk to a depth of seventeen feet and then abandoned.—*Smith's Report of the Sigrowlee and Karhurbaree Coalfields, p.* 10.

Copper is dug from the mines of Keban and Arguna, situated in the two branches of Mount Taurus that enclose the valley of Lophene.

Copper ore is said to occur in an island, just below Yelgurrup in the Ramgir circar of Hyderabad. Copper ore occurs in Kumaon. From Gurgaon, there was sent to the Panjab exhibition a piece of copper pyrites, which is a usual ore of this metal. Also specimens of good copper ore from the Hissar district, and of the metal got from it; from Pelang in Kulu and from Manikarn near Kulu in the Kangra district, some copper pyrites, and blue carbonate of copper from Spiti. From Rondu, 16 marches beyond Kashmir, copper glance, copper is found in Kashmir but is not yet an article of trade.

The primary formations of the Australian continent are equally metalliferous with those of south-eastern Asia. Copper ores have been found as long ago as 1802 at Port Curtis, near the southern extremity of the range which extends along the north-east coast. Flinders met with indications of copper at Good's Island in Torres Strait; but his suggestion does not seem to have been followed up by the naturalists attached to subsequent expeditions (*Flinders' Voyage to Terra Australis, Vol. II, p.* 120.) Lead and copper mines have been worked in South Australia for some years past, and others have been opened recently in the western coast range, a little to the north of Swan river. Hematitic and specular iron ore and copper pyrites, have been found on the north-west coast near Admiralty Gulf.—*Kinneir's Geographical Memoir, p.* 258. *McCulloch's Commercial Dictionary, p.* 398. *Bombay Times, June* 19. *Piddington in Beng. As. Soc. Jour. Crawfurd's Dictionary, Mason's Tenasserim. Irvine Gen. Med. Top. of Ajmir, O'Shaughnessy, Beng. Pharm. Beng. As. Soc. Tr.* 1841 *to* 1844. *Heyne's Tracts, Bomb. Geog. Soc. Tr.* vi. 117. *Friend of India, 28th Feb.* 1850. *Flinders' Voyage. Powell, Hand Book, Smith Nepaul. Smith's Report on Singrowlee.* See Deoghur. Elburz. Iran. Japan.

COPPER, ACETATE OF.

Zanjar	ARAB.	Senan:	MALAY.
Theng-twa	BURM.	Taibembaga	"
Pitra	HIND.	Zangar	PERS.
		Vangala Patchi	TAM.

COPPER ALLOYS are largely used in India, alloyed with zinc, brass, tin and lead. The red color of copper slides into that of yellow brass at about 4 or 5 oz. to the lb., and remains little altered to 8 or 10 oz., after which it becomes whiter. The alloys from 8 to 16 oz. are much used for furniture work: in all cases the metal is annealed before the application of the scouring or cleaning process. The alloy of zinc and copper retain their malleability and ductility well to about 8 or 10 ounces to the pound, after this the crystaline character begins slowly to prevail. The ordinary range of good yellow brass that files and turns well is from about 4½ to 9. oz. to the pound. The following proportions have been taken from C. Holtzapfel's remarks. The quantities show the proportions to 1lb. of copper.

Half to 1½ oz. zinc is added to copper when used for castings as pure copper generally does not cast sound: the usual mode is by adding 2 to 4 oz. brass to 1lb. 6 oz. copper: brass that bears soldering well, Bristol brass, is said to be of this proportion.

8 oz ordinary brass less fit for soldering than 6 oz., being more fusible.

9 oz. to 16 oz. Muntz patent sheathing, 40 zinc to 60 copper is the best proportion, it is cast in ingots, heated to a red heat, and at that heat rolled and forged for bolts &c.

12 oz. spelter for soldering iron: pale yellow metal for dipping in acids is in this proportion.

16 oz. soft spelter solder for ordinary brass work, 2 oz. copper to 1 lb. zinc a hard crystaline metal used for laps, polishing disks, &c.

ALLOYS WITH TIN.

The tin alloy is scarcely malleable at 2 ounces, it soon becomes very hard, brittle and sonorous; alloys of 1½ to 2½ easily assume the maximum of hardness without being crystaline. Native smiths render the mixed metal malleable with greater proportions of tin, so do the Chinese for their gongs and cymbals, by gently striking it while hot, at repeated heatings: some years ago bronze sheathing for ships was prepared on the same principle. Natives call such malleable bell metal "akkansu" (Tel). It is formed into vessels for containing acid food, buttermilk, &c.

1 oz. of tin to 1 lb. copper—a soft gun metal.
1½ " harder, fit for wheels to be cut with teeth.
1½ " to 2 oz. brass ordnance.
2 " hard bearings for machinery.
2½ " very hard do
3 " soft musical bells.
3½ " Chinese gongs and cymbals.
4 " house bells.
4½ " large bells.
largest bells.
7¼ " to 8¼ speculum metal.

WITH LEAD.

1 lb. of copper to 2 oz. a red colored ductile alloy.

6 oz. common pot metal is brittle when warmed.

The alloy with lead chiefly used on account of the facility with which it can be turned or filed.

WITH ZINC, TIN AND LEAD.

$1\frac{1}{2}$ oz. tin, $\frac{1}{2}$ zinc, 16 copper ; pumps and works requiring great tenacity.

$1\frac{1}{2}$ tin and 2 oz. brass to 16 copper, to be cut into teeth.

$2\frac{1}{5}$ 16 for turning work.

$1\frac{1}{4}$ 16 nuts of coarse threads and bearings.

Melt the copper alone, the brass in a separate crucible, the tin in a ladle, the two latter are added to the copper when it is removed from the furnace ; the whole are stirred together, and poured into the moulds.

Ordinary yellow brass is rendered very sensibly harder by a small addition of tin, say $\frac{1}{5}$ to $\frac{1}{2}$ oz. to the lb. On the other hand by the addition of a like quantity of lead, it becomes more malleable and cuts sharply. Brass becomes a little whiter for the tin and redder for the lead ; the addition of nickel to brass constitutes German silver.

Gun metal (copper and tin) by the addition of a small proportion of zinc mixes better, and the malleability is increased without materially reducing the hardness. Lead in small quantities improves the ductility of the metal, but at the expense of its hardness and colour, it is seldom added.

Pot metal (copper and lead) is improved by the addition of tin, and the three metals will mix in almost any proportions. Zinc may be added to pot metal in very small quantity, but when the zinc becomes a considerable amount, the copper takes up the zinc forming a kind of brass, and leaves the lead at liberty, which in a great measure separates in cooling. Zinc and lead are indisposed to mix alone, though a little arsenic assists their union by "killing" the lead as in shot metal ; antimony also facilitates the combination of pot metal, —7 lead, 1 antimony, and 16 copper mixed perfectly at the first fusion, and the mixture was harder than 4 lead and 16 copper, and apparently a better metal.—*Mr. Rohde MSS.*

COPPER SMITH. The small green Barbet, Megalaima viridis, *Gmel.* It is common in the peninsula of India, where it is known as the coppersmith. It generally perches on the top branch of a tree, and the sound of its voice is "took, took, took," continuously, almost identical with the sound produced by striking a metal vessel.

COPPER, Sulphate of.

Zangbar	AR.	Tutiya, Nilatutia	HIND.
Dok ta-tsha	BURM.	Cuprum vitriolatum ;	LAT.
Bluestone	ENG.	Vitriolum cæruleum	„
Bluevitriol sulphat of copper	„	Cupri Sulphas	„
Sulfate de Cuivre	FR.	Turushu ; Nila tutam	TAM.
Kupfer Vitriol	GER.		

This salt is produced naturally in the water of many mines. It was no doubt employed by the ancients as it was by the Arabs and Hindoos. It is a common bazar article in India, being manufactured in many parts of Bengal and the eastern Islands ; it is easily prepared by heating copper to redness in contact with the air, removing the black scales which form, and dissolving these in dilute and boiling sulphuric acid, and crystalizing. In the refining of silver it is incidentally prepared in very large quantities.—(*Beng. Phar. p.* 322.) It is much used in dyeing operations, in the printing of cotton and linen, and for various other purposes in the arts. It has been employed to prevent dry rot by steeping wood in its solution, and is a powerful preservative of animal substances ; when imbued with it and dried, they remain unaltered. It is obtained by the decomposition of copper pyrites, in the same manner as green vitriol from iron pyrites. It is manufactured for the arts from old copper sheating, copper turnings, and copper refinery scales. A little sulphate of copper or blue vitriol mixed with the rice or flour paste, used for joining papers, very effectually keeps these destructive pests at a distance.—*Royle. Beng. Phar. p.* 322.

COPPER-WARE and tutenague utensils, with coral and glass beads, all form a small portion of the Chinese trade to India ; the Chinese seldom use glass beads as ornaments.

COPPERAS, syn. of blue vitriol, cyprian vitriol, roman vitriol, sulphate of copper. See Blue stone. Copper, sulphate of

COPPER cash of the Chinese, 1200 go to a dollar.

COPPER PASTILLES, pastilles containing sulphate of copper, " Neela toota," *Hind.* when burned destroy bugs, musquitoes and fleas, using three or four in a day.

COPPER tea pots or vases are imported from Yarkand.

COPRA. HIND. GUZ.

Nari Kela	SANS.	Kobara tengai	TAM.
Kobari ten-kaia	TEL.		

This is the dried albumen or kernel of the cocoanut. In preparing the copra of commerce, the kernel of the cocoanut is taken out when fully ripe, divided in the middle, and dried. It is used as an ingredient in curries and in medicine, and is largely exported from India. The kernel of the cocoanut has much the taste of a filbert, and is a valuable ingredient in curries. It is considered as very nutritious. The correct hindi word is K'hopra.—*Ainslie, Faulkner, Seeman.* See Cocoanut: Cocos nucifera.

COPRIS, one of the Coleoptera.

COPROPHAGOUS BEETLES. See Coleoptera.

COPROVIS VIGNEI. syn. of Ovis aries.

COPSYCHUS, a genus of birds of the order Insessores, Fam. Merulidæ, and Sub-family Saxicolinæ.

COPSYCHUS SAULARIS. The Dial bird; it is common in Ceylon.

COPT, a race in Egypt, about 150,000 souls, following christianity. Though more or less mixed with other races, they are the undoubted descendants of the ancient Egyptians. The Coptic language became almost extinct as a living tongue in A.D. 1700. They now for the most part speak Arabic. It was found, when the hieroglyphic letters were written in English letters, that the words formed were in the main Coptic, with a slight admixture from the Hebrew and other tongues; and that the language of the ancient Pharaohs did not differ so much from the language of their modern descendants, as modern English does from that of Alfred the Great. With this key, learned men, who knew Coptic, have been able to read the hieroglyphics. They have now an alphabet, grammar and dictionary, and any person may learn to read the mysterious language on the monuments of Egypt as easily as Greek or Latin. The language, though in the main Semitic, has a considerable mixture of Arian, or Indo-Germanic roots. The Turks call them, in derision, the posterity of Pharaoh, but their uncouth figure, their stupidity ignorance, and wretchedness, do little credit to the sovereigns of ancient Egypt. Of the diminution of the numbers of the Copts, some idea may be formed from the reduction of the number of their bishops. They were seventy in number at the period of the Arabian conquest. They are now only twelve, and most of these are settled in Upper Egypt.—*Bunsen's Egypt. Cal. Rev. No.* 73. *Septr.* 1861, *p.* 118. *Niebuhr's Travels, p.* 104.

COPTIS. Its warriors, from their fortresses in the Thebaid, held the wealthy traders and husbandmen of the delta in subjection as vassals.—*Sharpe's History of Egypt. Vol.* i. *p.* 133.

COPTIS TEETA. WALL.

Mishmee Teeta ASSAM. | Hong-lane CHIN.

The "Golden thread root" of Assam, is a native of the mountainous regions bordering on upper Assam, and its root is in high repute among the Mishmee, Lamas, and Assamese: quantities are sent down to Assam in neat little baskets with open meshes, made of narrow strips of rattan, and measuring 3 to 4 inches in length by 2½ in breadth, and 1½ in width; each basket contains about an ounce of small pieces of the root from 1 to 3 inches long. The taste is intensely and purely bitter, very lasting, with only a slight aroma. On mastication the root tinges the saliva yellow. In North America, the Coptis trifolia is much employed as a bitter tonic. Coptis teeta root brings a very high price, and is deemed a tonic remedy of the greatest value. Its influence in restoring appetite, and increasing the digestive powers, are very remarkable. It did not seem to exercise any febrifuge virtue, but under its influence several patients recovered from acute diseases manifestly, and very rapidly improved in strength. The dose was 5 to 10 grs. of the powder, or an ounce of the infusion thrice only. Latterly, medical officers have used it as a substitute for quinine, both in remittent fever and in common agues. The tincture is a bitter tonic, and its flavour and colour are much more agreeable than the tincture of Colomba.—*Beng. Phar. p.* 422. *O'Shaughnessy, pages* 162, 163.

COQUE DE LEVANT. FR. Cocculus indicus.

COQUILLA NUTS are produced in South America, in the Brazils, by Attalea funifera, according to Martius, or the Cocos lapidea of Gartner; the latter title is highly descriptive. The plant might advantageously be introduced into Southern Asia. The Coquilla nut shell is nearly solid: with two separate cavities, each containing a hard, flattened, greasy kernel, generally of a disagreeable flavour: the cells occasionally enclose a grub or chrysalis, which consumes the fruit. The passages leading into the chambers are lined with filaments or bristles, and this end of the shell terminates exteriorly in a covering of these bristles, which conceal the passages: this end is consequently almost useless, but the opposite is entirely solid and terminates in the pointed attachment of the stalk. Sometimes the shell contains three kernels, less frequently but one only, and a coquilla nut has been seen entirely solid. The substance of the shell is brittle, hard, close, and of a hazel brown, sometimes marked and dotted, but generally uniform. Under the action of sharp turning tools it is very agreeable to turn, more so than the cocoa-nut shell; it may be eccentric turned, cut into excellent screws, and it admits of an admirable polish and of being lackered. On the whole it is a very useful material and suitable for a great variety of small ornamental works both turned and filed. See·

man remarks that coquilla nuts being excessively hard, beautifully mottled with dark and light brown, capable of taking a very high polish, they are extensively used for turnery work especially in making the handles of bell-pulls, small tops, the knobs of walking sticks, umbrellas, and other articles. In addition to the nuts, a coarse black fibre is obtained from the dilated base of the petioles. It is collected by the natives, and partly used for consumption, partly exported to Europe, tied up in bundles of several feet in length, and sold in London under this name at about £14 the ton. It is manufactured into cordage in its native countries, and as it is light, cables made of it do not sink in the water. In 1850 about 250,000 nuts were imported into England and sold at 30-40s. the 1000.—*Seeman. Holtzapfel. Pople's Stat. of Com. p.* 98.

CORA. HIND. also Kora. New, raw, fresh, hence the Hindee, the Ghilek, and the Greek Koree, a virgin ("Pop. Poetry of Persia," p. 542).—*Elliot.*

CORA-CORA. See Java.

CORACIAS BENGALENSIS. The Indian Roller and the 'King Crow' habitually perch on the telegraph wires to watch for their insect prey: the former displaying his gaily painted wings to advantage, as he whisks and flutters about, regardless of the fiercest sun. Coracias bengalensis of all India meets, in the Punjab, &c. the European C. garrula; in Assam, Sylhet, Tippera, and more rarely in Lower Bengal, it co-exists with the C. affinis, specimens of which from the Burmese countries are ever true to their proper coloration, as those of C. bengalensis are from Upper and S. India; but there may be seen every conceivable gradation or transition from one type of colouring to the other, in examples from the territories where the two races meet.

Coracias garrula, the 'Roller' of Europe, Africa, W. Asia, Afghanistan, Kashmir, Sindh, and the Punjab, is migratory in Europe, and rare in Britain. According to Mr. Wallace, Celebes has the Carpophaga luctuosa, a fine cream coloured pigeon, also the Coracias Temminckii. Phænicophaus callirhyncus is one of the finest known cuckows. Its bill is of a brilliant yellow, red, and black. Ornithoptera remus, the largest and most beautiful of all the butterflies, is found in Celebes.—*Wallace,* p. 284.

CORACIDÆ. A family of birds of the order Insessores, consisting of 2 gen. 6 sp., viz Coracias pileata; garrula, Indica, affinis: Eurystomus orientalis, and Pacificus.

CORBAN. AR. HIND. PERS, the sacrifice, called in the Gospels, a gift. See Kurban Sacrifice.

CORBEILLES. FR. Basket.

CORBYN, Dr. Frederick, a medical officer of the Bengal army, editor of the Indian Review, Indian Journal of Medical Science. Calcutta, 1838—1844. Author of the science of national defence with reference to India. Calcutta, 1844. Treatment of Cholera.

CORACLE. The ferries of rivers in India and the S. of Asia are crossed in various ways, but on the Tigris, Euphrates, the upper Indus and its affluents, the practice of three thousand years still continues. Xenophon's ten thousand were ferried over on inflated skins, and three slabs in the British Museum show the representation of the king of Assyria crossing the Euphrates in this mode, which still continues on the rivers named. Canoes are of common use on the ferries; two pieces of the bole of a palmyra tree, scooped out and blocked with clay at the end, and fastened together, are used in the Circars. The wicker and leather coracle traverses most of the rivers in the peninsula of India. The ferrymen on the Kistnah river in the peninsula, are the Koli race, stalwart men. The Kili-Katr or Mad-dakpore race are also Kabl-gira or ferrymen. See Boat.

CORACOPSIS. A genus of birds of the order Scansores or Climbers, and Sub-family Psittacinæ.

CORAH, also written Cora, the mercantile name of plain silk cloth undyed. Bandanna is the same article dyed. This word is derived from bandhna, to tie, because in dyeing the materials, the portions to be left white are tied into knots. See Cora.

CORAL. ENG. PORT. SPAN.

Bussud	AR.	Corallium	LAT.
Ky-a-ve-khet	BURM.	Pualam	MALAY.
Gulli	DUK.	Karang	,,
Koraalen	DUT.	Korallii	RUS.
Corail	FR.	Birbat	SANS.
Korallen	GER.	Vidruma	,,
Marjan	GUZ. HIND.	Prabala	,,
	MALAY. PERS.	Bubalo	SINGH.
Munga	,,	Pavalam	TAM.
Ramuth	HEB.	Pagadam	TEL.
Corale	IT.		

Coral, as seen in the market, is the calcareous shell of an insect, whose flesh has been removed. It is merely carbonate of lime secreted by species of polypi, its particles cemented together by a gelatinous secretion from these animals. Ovid thought it was soft and pliable in the sea, and only became hard when exposed to the air. Marsili, an Italian naturalist, thought coral to be a marine plant, and the polype animal its flower, and Dr. Parsons entertained similar views; hence their name zoophytes, or plant animals. The polypi that make coral are chiefly Antipathes glaberrima, Madrepora corymbosa M. pocillifera; Gorgonia tubeiculata, two species of Astrea, Leiopathes glaberrima and L. Lamarckii. When still alive in the sea, the rough surface is seen dotted with red spots, which are the polypi or coral insects, and a minute examination detects thousands o them, each inhabiting permanently a little cell of its own. Many of the polypi or coral insects have a little parasol shaped cover for the head; the arms are furnished with eight claws, are long compared with the body, and are generally seen extended as if searching for food. Some of the kinds of coral resemble gigantic plants with flowers and leaves. Some grow like a tree with leafless branches, and others spread out fan-like, into broad flat surfaces. The walls formed by polypi are always perpendicular. The brain coral is called Meandrina.

Coral is found in great abundance in the Red Sea, the Persian and Arabian Gulfs, in various parts of the Mediterranean, at the Mauritius, on the coast of Sumatra, in Japan, &c. It is brought to China from all the islands of the Indian Archipelago in native vessels, and is there wrought into ornaments and official knobs or buttons. It sells from 40 to 60 dollars per pecul according to the color, density, and size of the fragments. In former years, considerable quantities were imported in E. I. Company's ships from the Mediterranean, via England, but none for years past. It is imported to some extent into India, where the black coloured is most esteemed, next the red coral, Corallium rubrum of Lamarck. In Britain the pale pink corals are most prized. Liverpool received from Italy 120 lbs. in 1852, and 146 lbs. in 1854.

Several of the hill-tribes of India are very partial to ornaments made of coral and amber. Tavernier tells us that in his time, the Japanese were very partial to coral, and he concludes his discourse on coral by telling us that "the meaner sort of people use it for bracelets and necklaces all over Asia, especially toward the northern territories of the great Mogul, and all along the mountains as you go to the kingdom of Asen and Bootan." In Europe, coral was believed to be a great antidote to the evil-eye, and to ward off all dangers and injuries by sea and land. At the Mauritius, Honolulu, and islands in the Pacific Ocean coral rock is used as a building material, and in the Archipelago is burned into lime.—*McCulloch's Dictionary of Commerce. Ainslie Materia Indica. Faulkner. C. W. King's Precious Stones, Gems and Precious Metals. Lond.* 1865. *Belcher Voyages of the Samarang. Tavernier's Travels, p.* 151-152.

CORAL ISLANDS. Darwin describes them as of three forms; the Atoll, or Fairy ring of the Ocean, with a lagoon in the centre; barrier-reefs stretching along a vast extent of coast, and coral reefs which are merely fringes of coral along the margin of a shore. Von Buch is of opinion that the coral ring of the atoll is merely the edge of a submarine volcano, on which the coral insects have built. An atoll differs from an encircling barrier reef only in the absence of land within its central expanse; and a barrier reef differs from a fringing reef in being placed at a much greater distance from the land with reference to the probable inclination of its submarine foundation, and in the presence of a deep water lagoon-like space or moat within the reef. Atolls sometimes constitute a great circular chain enclosing a deep basin, but opening by one or more deep breaches into the sea. Sometimes they surround a little island by a girdle of reefs, or form the immediate edging or border of an island or continent. Atolls occur in the Pacific in the Chinese seas, amongst the Marianne and Philippine Islands, Maldives and Laccadives, and there are, also, in the Eastern Archipelago, the atolls of the Sunda group, and in the Pacific ocean, are many of the coral islands.

The researches of Darwin have shewn us that the coral polype does not build from the fathomless depths of sea which immediately surround these reefs and islands. He seems to imply indeed that the coral animals cannot exist at a greater depth than thirty fathoms, but, whatever may be the case in tropical seas, living corals exist and build compound polypidoms at far greater depths in the northern latitudes. Darwin maintains that the whole area of the Pacific is slowly sinking, that all the reefs and islands are the summit of former mountains, that all the coral structures were originally attached to the land at shallow depth, and that to whatever depth below they now extend, it is only in a dead condition, and has been effected by the subsidence of the supporting land carrying the coral with it, while the successive generations of the living polypi, ever working upwards on the old dead foundation, have maintained a living coral structure near the surface, and that nearly in the same outline, and from the original foundation.

In coasting along a tropical reef, the extreme clearness of the water permits to be distinctly seen the coral shrubs and groves which rise from the blue transparent depths. They take various forms, some massive with meandering channels over the rounded surface; some forming honey-comb blocks formed by the union of thin plates at various angles, many growing like trees or shrubs with leafless branches, more or less ramified, and with the twigs more or less slender and pointed, or thick and rounded. Under water, the whole surface is covered with a layer of jelly-like flesh, of many brilliant colours, formed by the crowding together of the myriad tiny polypi, which protrude their slender tentacles and expanding disks from the individual cells. Even when severed, the branches are exquisitely beautiful, so long as they retain the faint purple halo that plays around their ivory tips, but which soon vanishes. A rude touch beneath the water will cause the lovely tints—brilliant crimson, orange and emerald polypi,—to disappear, but they soon protrude again, and expand in their original loveliness. The dimensions attained by the labours of the minute workmen, is the most astonishing part of the spectacle. "Some individual specimens of [illegible]s, in the rock of the inner reef of T[illegible]a, are twenty-five feet in diameter; a[illegible]reas and Meandrinas, both there and in the Fejee islands, measure twelve or fifteen feet. The platform resembles a Cyclopean pavement, except that the cementing material between the huge masses is more solid than any work of art could be. (*Gosses' Natural History, p.* 92. *Darwin's Naturalist's Voyage, Ch.* XX.)

Sometimes the barrier reef recedes from the shore, and forms wide channels or inland seas, where ships find ample room and depth of water, exposed, however, to the danger of hidden reefs. The reef on the north-east coast of New Holland and New Caledonia extends four hundred miles, at a distance varying from thirty to sixty miles from the shore, and having as many fathoms of depth in the channel. West of the large Fejee Islands, the channel is in some parts twenty-five miles wide, and twelve to forty fathoms in depth. The sloop-of-war Peacock sailed along the west coast of both Viti Lebu, and Vanna Lebu, within the inner reefs, a distance exceeding two hundred miles. "A barrier reef, inclosing a lagoon, is the general formation of the coral islands, though there are some of small size in which the lagoon is wanting. These are found in all stages of development: in some the reef is narrow and broken, forming a succession of narrow islets with openings into the lagoon; in others there only remains a depression of surface in the centre, to indicate where the lagoon originally was. The most beautiful are those where the lagoon is completely inclosed, and rests within a quiet lake. Maraki, one of the Kingsmill group, is one of the prettiest coral islands of the Pacific. The line of vegetation is unbroken, and, seen from the mast-head, it lies like a garland thrown upon the waters. It is in the south Pacific Ocean that coral reefs and coral islands are seen in the greatest perfection. The largest known coral reef is the Great Barrier Reef that runs for 1000 miles parallel to the coast of Australia, and at a distance from the shore of from 20 to 60 miles. The Barrier Reef of New Caledonia is 40 miles long. The Maldive Archipelago, in the Indian Ocean, is 470 miles long and averaging 50 miles in breadth. It consists of a very large number of coral islands and islets, the largest of which is 88 miles in length by about 20 miles in breadth. The Chagos group of islands, many of which are submerged, extends over an area of 170 miles long by 80 miles broad. Coral reef is the popular name given to all kinds of coral buildings, but naturalists classify them into (a) lagoon islands, or atolls; (b) barrier or encircling reefs; and (c) fringing or shore reefs. The lagoon islands or atolls have met with the largest share of attention, not from their size or importance, but on account of their surprising beauty. Darwin beautifully describes the atoll, as "a vast ring of snow-white coral, often many miles in diameter, holding within it a low verdant island, in the centre of which is a calm, still expanse of water, a kind of lagoon, which, from reflection, is of a bright but pale green colour. In this lagoon one sees, here and there, a firm spot of land, just a little elevated above the level of the water, on which there grows luxuriantly, the palm and the cocoa-nut tree, while on the outside of the ring, the great and foamy billows of the Pacific Ocean lash, with unremitting fury, the dazzlingly white shores of the coral island. *Barrier reefs* encircle groups of small mountainous islands, and are often of immense extent. Sometimes the reef is visibly connected with the land that it surrounds, but more generally a long line of foaming and dashing breakers marks the separation between the open sea and the smooth waters of the channel beyond. *Fringing reefs* are of comparatively small extent, and only differ from the barrier reefs in having no separating channel between them and the shore. The Maldives, Chagos, and Laccadives are all of madreporic origin. The eastern coast of Australia, between 9° and 25° S. L., has a coral reef or barrier. The Great Barrier, an archipelago of coral islands on the north side of the Straits of Sunda, is remarkable. A similar group of islands is found between the Straits of Macassar and Bali. Marginal reefs extend from the island of Timor, along the southern coast of Sumatra, up to the Nicobars. The gaudiest fish live among the coral reefs; the species of the Chetodon, the Balistinæ, and Glyphosodon. A Pomacentrus is of the richest azure blue; the Glyphitododon, and Theropon are striped and banded.—*Louis Figuier Ocean World, London* 1868. *The Structure and Distribution of Coral Reefs*; *by C. Darwin, p.* 146. *Macgillvray Voyage, Vol. I. p* 73. *Maury's Physical Geography, p.* 80. *Gosse Natural History, pp.* 90-94. *Hartwig. Jansen. Collingwood.* See Coral. Polype.

CORALLINACEÆ. A family of marine plants, belonging to the order Algæ. According to Harvey's definition it includes the Corallinæ and Spongiteæ of Kutzing, and the Corallinidæ and Nulliporidæ of Dr. Johnston.—*Eng. Cyc., page* 143.

CORALLINÆ. See Corallinaceæ.

CORALLINE CRAB. See Cancer. Crustaceæ.

CORALLINIDÆ. See Corallinaceæ.

CORALLIUM. LAT. Coral.

CORAL PLANT. ENG. Jatropha multifida.

CORAL TREE. Erythrina Indica. The Erythrina is a genus of tropical trees, with clusters of very large long flowers, which are usually of the brightest-red, whence their name of Coral-Trees. Moore, when describing the Indian islands, notices the

> "Gay, sparkling loories, such as gleam between
> The crimson flowers of the Coral-tree,
> In the warm isles of India's sunny sea."

Frequently their stems are defended by stiff prickles. Voigt notices 11 species of them known in India, of which are E. arborescens of Nepaul, E. ovalifolia of Bengal, E. Indica of India generally, E. stricta and E. suberosa of the western coast of India and E. sublobata of the peninsula.—*Voigt.* 237.

CORALU. TEL. Millet.

CORAWA. A migratory race in the peninsula of India, engaged in mat making, basket making. There are several sections, the Tiling Corawa and Koonchi Corawa. &c. An ancient writer on Cochin speaks of its lower ranks consisting of: 1st, the Cannianol, who are astrologers; 2nd, the Corwaa, or exorcisers of evil spirits; 3rd, the Cuca Corwaa, snake charmers and diviners; and 4th, the Poenen Poeloon, who accompany them with tambourines or small drums. These four castes are in some measure distinct, but resemble each other in their strict separation from other castes, in their unsettled mode of life, wandering from place to place and earning their livelihood by exorcism, jugglery, snake charming, &c., like the heathens in Europe: and in their independence, for they manage their own law suits, punish their own criminals, and are subject to no prince or rajah. Another caste are the Mocquaa, who inhabit the seashores and subsist by fishing, many of whom have become Romish Christians. See India; Korawa.

CORYATE, TOM, described by Pennant as a most singular traveller of Britain. After publishing, in 1611, his most laughable travels, styled Coryate's Crudities, prefaced by above forty copies of verses, by the waggish wits of the time (amongst which is one in the ancient British language) he set out on his greater travels and seems to have been buried at the port of Swally near Surat. —*Pennant's Hindoostan, Vol. I., p.* 73.

CORCHO. SP. Cork.

CORCHORUS. A genus of plants belonging to the order Tiliaceæ or Linden Tribe; several species are known to occur in India, viz.

C. acutangulus.
C. capsularis.
C. fascicularis,
C. humilis.
C. olitorius.
C. prostratus.
C. trilocularis.

CORCHORUS ACUTANGULUS, *W. and A.*

C. fuscus, *Roxb.* ii. 512		Tita-pat	BENG.

This annual grows in Bengal and both peninsulas. Its flowers are small, yellow, springing, up about Rangoon in the rainy season, and mostly found growing along with *Urena*, but not to the same extent. It affords a strong fine grey fibre.—*McClelland*; *Voigt.*

CORCHORUS CAPSULARIS, LINN.

Ghinalita-pat	BENG.	Heart-leaved corchorus	ENG.

Caltivated in India and China as a fibrous plant, like C. olitorius, *Roxb.* ii. 581.—*Voigt.* See Jute. Dhunchee.

CORCHORUS DECEM-ANGLUARIS, ROXB. syn. of Corchorus olitorius. *Linn.*

CORCHORUS FASCICULARIS. ROXB. ii. 582.

Jangli-pat	BENG.	Bil nalita	BENG.

Grows in Hindustan, Bengal and the Peninsula.—*Voigt.*

CORCHORUS OLITORIUS, LINN.

C. decemangularis, *Roxb,*

Gania	AMBOIN.	Bristly-leaved Corchorus	ENG.
Pat	BENG.		
Bhunghi-pat	,,	Singin janascha	HIND.
Bun-pat : kooshta	,,	Rami tsjua	MALAY.
Phetwun	BURM.	Putta	SANS.
Oimoa	CHIN.	Parinta	TEL.
Jew's mallow	ENG.	Perintakura	,,

An annual plant common in Bengal. There are two varieties, the green (Pat, *Beng.*), the reddish, (Bun-pat, *Beng.*); both are used for their fibres, which are called jute and pat, the Jute of commerce. A coarse kind of cloth (tat) is woven from the jute, and affords the materials of the well known gunny bags. An infusion of the leaf is much employed as a fever drink among the natives of the Lower Provinces. Grows wild about Rangoon during the rainy season, and probably also in other districts, though not to the extent that Urena does. It might be cultivated to any extent. The leaves of this plant are used in Egypt as a pot-herb, and under the name of Nurcha or Sag greens, they are in common use amongst the natives of India. Both C. capsularis and C. olitorius afford the well-known Jute of commerce. They are largely cultivated, and both in the raw and manufactured form jute is exported from India. The plant is to be found every where under cultivation. Every farmer requires rope and twine, and so grows a little jute. The fibre is extracted as in the case of the 'sunn' hemp. In the bazaar jute sells at 10 lbs. per shilling, and the rope at from 5 to 7 lbs. weight for do. —*Roxb.* ii. 582, *Voigt. Jaffrey, Royle, McClelland, O'Shaughnessy, p.* 229. See Jute.

CORCHORUS TRILOCULARIS, Linn. Grows in Peninsula, Bengal, Burmah.

CORDAGE. Eng. Fr.

Touw-werk.	Dut.	Tali; Kalat;	Mly.
Manœuvres.	Fr.	Utas	,,
Tauwerk,	Ger.	Cordaje	Sp
Dudah,	Guz.	Jarcia,	,,
Rassi,	Hind.	Kair.	Tam.
Caolame,	It.	Daramu,	Tel.

Cordage is the commercial term for cord or rope of every kind. Cordage of excellent quality is manufactured in India, and the principal of the fibrous plants of Southern Asia are as under:

Abelmoschus esculentus, ...	Vendee fibre.
Abelmoschus ficulneus, ...	
Abutilon indicum, ...	Toottee.
Abutilon polyandrum, ...	
Abutilon tomentosum, ...	
Acacia arabica, ...	
Acacia leucophlœa,........ ..	
Æschynomene cannabina..	
Agave americana, ...	Pita fibre or great Aloe
Agave vivipara, ...	Kathalay.
Ailantus malabaricus,......	Porcomarum.— Inner bark. Not much used.
Aloe indica, or A. vulgaris.	Kuttally nar.
Aloe perfoliata, ...	Aloe fibre.
Ananassa sativa,............	Pine apple fibre.
Andropogon schœnanthus,	Camachy pillo.
Andropogon involutum. ..	
Antiaris saccidora, ...	Arengee.
Arundo donax. ...	
Bauhinia racemosa.........	Malfhun.
Bauhinia diphylla, ...	
Bauhinia Vahlii, ...	Vepy tree bark.
Bauhinia tomentosa, ...	Vellay Atee nar.
Bignonia coronaria.	
Boehmeria; several species.	
Borassus flabelliformis,...	Palmyra fibre.
Butea frondosa, ...	
Callicarpa lanata, ...	Thondy nar.—Inner bark not much used.
Calotropis gigantea, ...	Ak, Mudar, Yercum.
Calotropis procera. ...	
Cannabis sativa, ...	Hemp.
Carex indica. ...	
Chamœrops ritchiana....A.	Hemp palm.
Cordia obliqua, ...	Pothooveroosen nar.
Crotalaria burhia. ...	
Crotalaria juncea,...... ...	Sunn, wuckoo nar. Canamboo.
Crotalaria tenuifolia, ...	
Cocos nucifera, ...	Coir.
Corchorus olitorius, ...	Jute.
Corchorus capsularis, ...	,,
Cyperus textilis, ...	Mat-grass, or Coaray.
Decaschistia crotonifolia,	
Desmodium argenteum	
,, tiliæfolium.	
Dæmia extensa, ...	Ootrum ka bel.
Eriochlœna Candollii ..	
Eriodendron anfractuosum ...	Bast.
Eriophorum comosum ..	
Erythrina indica	
Ficus religiosa	Arasa nar.
Ficus racemosa	Atti nar.
Ficus Indica.	Aulamaram nar, Aallen nar —Not much used.
Ficus oppositifolia	Bodda nar.
Ficus Mysorensis... ...	Kul-aallun nar.—Not much used.
Ficus Roxburghii ..	
,, venosa	
Fourcroya gigantea ...	Seemay Kathalay.
Girardinia Leschenaultiana... ...	Neilgherry nettle.
Gossypium indicum ..	Indian Cotton.
Gossypium acuminatum.	Brazil Cotton.
Gossypium barbadense ...	
,, peruvianum ...	
,, religiosum ...	
Grewia asiatica.. ...	Bast.
Grewia oppositifolia ...	
Grewia tiliæfolia...... ...	
Grewia rotundifolia ...	Oonoo: Moderate strength
Guazuma tomentosa ...	
Hibiscus cannabinus ...	Polychay fibre.
Hibiscus macrophyllus .	
Hibiscus sabdariffa ...	Roselle fibre.
Hibiscus vesicarius ...	Wild ambara.
Hibiscus rosa chinensis..	Shoe plant fibre
Hibiscus vitifolia... ..	
Hibiscus lampas... ...	
Hibiscus macrophylla ...	
Isora corylifolia	Valumbrikai, Kywen nar.

This is the most valuable fibre in Travancore. The plant grows abundantly at the base of the hills. It is from the stem of this shrub that natives produce fibre.

Linum usitatissimum ...	Flax.
Marsdenia Roylii.	
Mimosa intsia	Eenjy nar.
Missiessya hypoleuca ..	
Musa paradisiaca... ...	Plantain fibre.
Musa textilis... ...	Manilla hemp.
Orthanthera viminea ...	
Pandanus odoratissimus.	Fragrant Screw Pine
Paritium macrophyllum.	
Paritium tiliaceum ..	
Philadelphus, *sp.* ..	
Phœnix acaulis	
,, dactylifera ...	
,, sylvestris	
Rhaphis... ...	
Saccharum officinarum...	
Saccharum spontaneum	
Saccharum sara... ...	Sara.
Sanseviera zeylanica ...	Moorghee, or Marool.
Salmalia malabarica ...	Elavum parooty.
Sesbania cannabina ...	
Sida populifolia... ..	Used for cordage, &c.
Strychnos potatorum ...	Katha vennar.
Smilax ovalifolia... ...	Krinkoddy nar.—Used for tying bundles, &c.
Sterculia guttata... ...	
Sterculia ornata.. ...	
Sterculia ramosa	
Sterculia villosa.. ...	

Terminalia alata... ...	Moorootheu nar.—Bark very strong, and lasts many years: used for dragging timber, cordage, &c. Common in the forests.
Terminalia belerica ...	Umburothee nar.
Tylophora asthmatica ...	Koorinja.
Typha angustifolia ...	
Vernonia anthelmintica.	Caat sceragum.
Ulmis campesris... ...	
Urtica heterophylla ...	
Wikstræmia salicifolia...	
Yucca gloriosa... ..	Pita or Adam's Needle
Yucca aloefolia... ...	

In many parts of India, cordage is made of coir, from the outside of the shell of the cocoa-nut; ropes are frequently made from the bark of three different trees belonging to the genera hibiscus, paritium and sterculia. viz. Paritium macrophyllum and P. tiliaceum; Hibiscus macrophyllus, Sterculia guttata and Sterculia ornata. Of jute fibre and jute rope alone, the quantities exported from India were as under:

	lbs.	Tons.	Value.
1850— 1...	65,228,016	29,120	196,936
1851— 2 ..	59,949,120	26,763	180,976
1852— 3...	......	...	...
1853— 4...	57,064,784	25,475	161,769
1854— 5...	78,351,592	34,978	229,241
1855— 6...	98,864,080	44,135	329,076
1856— 7...	75,463,472	33,689	275,057
1857— 8...	88,347,616	39,441	303,292
1858— 9...	......	...	...
1859—60...	81,254,512	38,060	290,018
1860— 1...	122,325,280	53,716	409,371

In 11 years, the amount exported doubled, and the value more than doubled.—*Selec. Records Government of India Foreign Dept. No. IX. p.* 25. *McCulloch's Commercial Dictionary p.* 401. *Drs. Mason, Stewart, Royle. M.E. J. Rep.* See Bast. Jute, Rhcea, Sunn.

CORDIA. A genus of plants belonging to the natural order Cordiaceæ. In the southern part of the Peninsula, the Tamil name, Narvilli maram, seems to be applied indiscriminately to three or four species, viz., C. Rothii, C. obliqua and C. fulvosa, so that it is impossible to say which is the one meant by it. Dr. Wight believes that the wood of all is very inferior, the trees being usually small. The following species are known.

C. angustifolia.
C. cuneata.
C. domestica.
C. fulvosa.
C. gerascanthus.
C. grandis.
C. latifolia.
C. leschenaultii.
C. monoica.
C. myxa.
C. obliqua.
C. orientalis.
C. perrotettii.
C. polygama.
C. prionodes.
C. rothii.
C. sebestana.
C. serrata.
C. tectonæfolia.
C. tomentosa.
C.trichostemon.
C. Wallichii.

Cordia angustifolia extends from the Peninsula up to the banks of the Ganges. Cordia latifolia and Cordia tomentosa are confined to the southern parts. In the Dehra and Kheree jungles, Cordia latora is found, *Ham. Buch.* perhaps only a variety of Cordia myxa with a new species C. incana.—*Royle. Voigt.* 441. *W. Ic. M. E. J. Rep. Royle Ill. Him. Bot. p.* 306.

CORDIA ANGUSTIFOLIA, Roxb.

Cordia reticulata, *Roxb.*

Narrow-leaved Sepistan	Eng.	Liyar	Sind.
		Naruvalli	Tam.
Gund	Hind.	Chinna botuku	Tel.
Gundni	,,	Nukkeru	,,

This tree grows in Hurdwar, Guzerat and the Dekhan, is from 30 to 40 feet high, the wood is very tough, and is used for carriage poles, posts, and in house building. It is common about villages in the Circars, but never seen in the jungles. Fruit the size of a large pea, round and smooth, the pulp yellow, and gelatinous, edible but tasteless, the tree is common throughout the Deccan. It is possible that the bark of some of the species of Cordia, when young, may yield a useful fibre.—*Royle, Fib. Pl. page* 11, *Dr. Riddell, Captain Beddome. Voigt. Birdwood.*

CORDIA DOMESTICA. Roth. Syn. of Cordia myxa, *Linn.*

CORDIA LATIFOLIA, Roxb.

Sepestan	Ar. Pers.	Bhokur	Hind.
Buhuari	Beng.	Barra lesura	,,
Buro buhooari	,,	Pistan-sug	Pers.
Broad-leaved Sepistan or Cordia	Eng.	Gedooroo	Sindh.
		Sheloo	Sans.
Burgoond; Vurgoond	Guz	Kicha virigi chettu	Tel.

The tree is common in Guzerat, Hindostan, but mostly confined to the southern parts of India. It has numerous spreading branches, and the young shoots are angular and smooth. The general height of trees, ten or twelve years old, about 20 feet. The fruit is eaten: "phaleeta" or slow matches are made of the bark. The tree is hardy and ornamental, and would do well in compounds along with other trees. The wood is very inferior, and of small size. Under the name of sebesten plums, sebestans, or sepistans, two sorts of Indian fruit have been employed as pectoral medicines, for which their mucilaginous qualities, combined with some astringency, have recommended them. They are believed to have been the Persea of Dioscordes. This tree furnishes one of them, Linnæus applied the name of Sebestan to an American species of this genus which is not known in medicine. —*Eng. Cyc. p.* 146, *Drs. Roxb. Voigt. Irvine. O'Shaughnessy. Wight and Royle. Mr. Elliot in Fl. Andh.*

CORDIA MACLEODII ? (*qu.* monoica ?)

Hemigymma Macleodii | Dhengun Hind. ?

A tree of Jubbulpore, from which there was sent to the Exhibition of 1862, specimens of a remarkably beautiful wood, found in Mundlah and Seonee.—*Cat. Cal Ex*, 1862.

CORDIA MYXA, Linn.; *Roxb. F. I. p.* 500

Lebuk of Avicenna.	Cordia domestica, *Roth.*
Mochayet, of Forskal.	Sebestana domestica.
Prunus sebestana, *Pluk.*	*Lam. Commel. Pr. Alp.*
Cornus sanguinea, *Forsk.*	Sebestana myxa, *Commel.*
Cordia officinalis, *Lam*	„ officinalis, *Gærtn.*

Sepistan	Ar.	Vidi mara	Maleal.
Lebuk	„	Bukampadaruka	Sans.
Behuari	Beng.	Buhoorearuka	„
Tha nat	Burm.	Lolu	Singh
Bukhoor	Dec.	Vidi maram	Tam.
Sepistan plum tree	Eng.	Nakkeru	Tel.
Nakkeru wood tree Anglo	Tel.	Iriki	„
		Bunka nakkera	„
Lusora	Hind.	Ura nakera	„
Lesura	„	Pedda botuku	„
Kendal	Jav.	Mookooroo karra	„

A native of Egypt, Persia, Arabia, of Ceylon, Hindostan, Nepaul, and the forests of the Godavery. It grows wild in the Siwalik up to 4000 feet. It is common throughout the Konkan, Pegu and the Malay Peninsula. There are two varieties. The trunk is from 8 to 12 or 15 feet high, generally crooked, but as thick or thicker than a man's body, with numerous spreading branches bent in every possible direction, and forming a dense shady head with a grey cracked bark. The wood is soft, and of little use except for fuel. The wood in Kangra is said to be white and soft, and is mostly used for fuel. In Sind, also, fuse is prepared from the bark of this tree. In the Circars, ploughs are said to be made from its wood. In British Burmah, its soft wood is not used. A cubic foot weighs lbs. 33. In a full grown tree on good soil, the average length of the trunk to the first branch is 15 feet, and average girth measured at 6 feet from the ground is 4 feet. The leaves are collected extensively and sold for cover leaves for cigars. It is reckoned one of the best kinds of wood for kindling fire by friction, and is thought to have furnished the wood from which the Egyptians constructed their mummy cases. The wood and bark are said by Dr. Royle to be accounted a mild tonic. Its fruit is the smaller sebestans or lobestens of European medicine, it is a yellow berry with a strong sweetish taste, and serves as a preserve, the mucilage of the fruit, called "Goudi" is demulcent. The root is said to be purgative: the larger fruit is called lasurá, and the smaller variety lasuì; its seed are the Chakoon ki binj, Hind., used in powder mixed with oil as an application in ringworm.—*Drs. O'Shaughnessy, p.* 498, *Stewart, Royle, Brandis. Riddell. Powell. Eng. Cyclop. Flor. Andh. Voigt. Dr. Birdwood. Thw. En. Pl. Zeyl, p.* 213.

CORDIA OBLIQUA. Willd.

C. tomentosa.	*Wall*	C. Domestica?	*Roth.*
C. Wallichii, *G. Don.*;			

Goudni.	Dek.	[illegible]	Sans.
Lasora.	Hind.	Naruvalli pallam.	Tam.

This is a large handsome tree common in the lower provinces of India, with a small round, reddish coloured, pleasant tasted, but glutinous fruit, furnishes a fibre, Potheoveroosen nar, of moderate strength.—*Ainslie, page* 228.

CORDIA OBLONGIFOLIA, Thw. A tree of Ceylon Central Province, up to an elevation of 200 feet.—*Thw. Enum. Pl. Zeyl. p.* 214.

CORDIA OFFICINALIS. Lam. syn. of Cordia myxa, *Linn.*

CORDIA POLYGAMA, Roxb.

Botu kuru chettu.	Tel.	Pach-cha botuku.	Tel.

A strong close grained wood, small and crooked, found in the Circars.

CORDIA RETICULATA, syn. of Cordia angustifolia, *Roxb.*

CORDIA RETUSA. Vahl. syn. of Ehretia buxifolia.

CORDIA ROTHII. Roem. et Sch.

Cordia cuniata, *Heyn.*

Bokur.	Mahr.	Navilu maram.	Tam.

Dr. Wight believes the wood is very inferior, the trees being usually small. Dr. Gibson says that C. Rothii, C. fulvosa and C. obliqua do not yield timber fit for any thing but firewood. They are not uncommon in the Bombay forests, but are more generally met with near cultivated lands and villages.—*Drs. Wight and Gibson.*

CORDIA SERRATA.

Gab, Gad, Gondori, Hind.—Saw-leaved Cordia.

This species is common in hedges at Ajmeer. The small gummy berries are eaten as a fruit by the poor.—*Genl. Med. Top., p.* 184.

CORDIA VESTITA, H. f. et Th.

C. incana	*Royle.*	Gynaion vestitum,	*D. C.*

Kumbi of	Beas.	Karuk of	Sutlej.

A small tree, rare in the Siwalik tract, nearly as far as the Jelum and in the Salt Range to 3,000 feet. Common in the N. W. Provinces. The wood is valued for wheel work. The fruit is eaten, and said to be sweet.—*Dr. J. L. Stewart.*

COREZOLO. It. Black lead.

CORDUFA NICA. See Mirafra.

COREA. This peninsula is tributary to China, though it is ruled by a Corean king who nominates his successor subject to the confirmation of the emperor of China. Corea is bounded on the north by Manchuria, west by the Yellow Sea, N. W. by the province of Lyantong, by the Straits of Corea on the south, and Sea of Japan on the East. It is mountainous and very cold in winter. It is carefully cultivated, and produces large crops of rice, wheat, and esculent roots. Cotton is grown largely in the southern provinces; flax is also cultivated, and small quantities of silk are exported to China. Corea, or Korea, is called Chaou Seen by the natives; the Chinese call it Kaoli. The higher classes have a tendency to the Turanian physical type as with the Japanese and those of Siberia.—*Yule Cathay, II p. 268.*

COREOPSIS. A genus of flowering plants, well worth cultivating in India either in pots or the flower garden. Raised from seeds, should be sown at various times during the cold months, for the purpose of obtaining a succession of bloom. Sown in February, they may be had in flower during the hot months, if attended to with water, at which season any flower is acceptable. There are several varieties of C. tinctoria, a deep orange yellow, striped with red. The name is derived from the resemblance of its seeds to an insect.—*Mason.*

COREYGAON. A battle was fought here on the 1st January 1818, in which a small detachment of Madras artillery and infantry successfully repulsed repeated attacks on their position in that village from about 4000 of the elite of the Peshwa's army. The village is on the right bank of the Bhima, about 30 miles north of Poonah.

CORGE. Twenty pieces of cloth.

CORIANDER SEED.

Kezirah	Ar	Dhannia	Hind
Dhunia	Beng	Coriandri semina	Lat
Nan nan	Burm	Mety, also Katumbar	Mal
Cottimbiry	Can	Danya, Mety	Maleal
Dhunian	Duk	Kushniz	Pers
Coriander	Dut	Kitnuz	"
Coriander seeds	Eng	Coentro	Port
Coriandre	Fr	Dhanyaka	Sans
Koriander saamen	Ger	Kotambaru	Singh
Korion	Gr	Cottamalli	Tam
Dhannia	Guz	Dhanalu vittulu, also Cottamailh	Tel
Gad	Heb	Kotimiri	Tir

The fruit or seed of the annual plant Coriandrum sativum cultivated in the East and in Europe, and procurable in all Indian bazars. When fresh, their smell is strong and disagreeable, but by drying it becomes sufficiently grateful. They are used as an ingredient in curries in India, and medicinally as a stimulant and stomachic. In Europe, coriander seed is chiefly used by distillers to produce an aromatic oil. The quantity imported annually into Britain does not exceed 50 tons, and it is brought principally to the port of Hull. At the Madras Exhibition of 1855, coriander, aniseed and cummin were largely exhibited from several collectorates. The seed sells at 24s. the cwt.—*M. E. J. R. Simmonds. McCulloch. Birdwood. Waring.*

CORIANDRE. Fr. Coriander seed.

CORIANDRUM, a genus of plants belonging to the natural order *Umbelliferæ.*—*Eng. Cyc. p.* 147.

CORIANDRUM SATIVUM, Linn. *Roxb, W. Ic.*

Kuzireh	Ar.	Meti; Katumbar	Maleal.
Duniya	Beng. Dek. Guz. Hind. Maleal Sans.	Kushniz, Kitnuz	Pers.
Nan nan	Burm.	Kashniz	Pusht.
Cottimbirry	..	Damaka	Sans.
Coriander	Eng.	Cotum baroo	Singh.
Korion	Gr.	Cottamalli	Tam.
Gad	Heb.	Kotimiri; Dhaniyalu	Tel.

The Greens.

Cottamilli keeray, Tam. | Coriander Greens, Eng.

The coriander plant is found in the corn-fields of Tartary, the Levant, Greece, Italy, and south of Europe, and it is grown in every part of Southern Asia, where the leaves are used by the natives for chatnies and curries, the fruit being also carminative and aromatic, are used in decoction, in sweetmeats, in certain stomachic liqueurs, and in some countries in cookery: they are little esteemed in England. During the unripe state, the odour resembles that of bugs, but this changes rapidly as ripening proceeds, and Fee derives coriandrum from *χopis* a bug—*O'Shaughnessy, page* 371. *Roxb.* ii. 94 *Voigt* 23. *Lindley.* See Vegetables of Southern India: Coriander seed.

CORIARIA NEPALENSIS. *Wall.*

Shalu of	Chenab.	Amura of	Beas.
Baulu "	"	Phapar-chor "	"
Guch	Hind.	Kande of	Ravi.
Mussorie		Shala	"
Balel of	Kangra.	Ran	"
Tadrelu		Archalwa of	Sutlej.
Balel of	Kashmir.	Shere	"
Ratsahara of	Beas.	Lichakro	"

Grows all along the Himalaya and, from its abundance, has bestowed its name on Mussooree hill station. The fruit formed by the junction of several pistils is eaten in the hills although that of the European species is poisonous inducing narcotism and tetanus.—*Drs. O'Shaughnessy page* 270, *Cleghorn, Stewart, Voigt, Royle.*

CORI KIRE. Tam. Portulaca oleracea.

CORINDON HYALIN. Fr. Corundum.

CORINGA, a town in lat. 16° 49′ N., is built at the mouth of the Godavery river, generally called the Coringa river. It is a seaport town, where ships are built.

CORI PORCELLANNE. It. Cowries.

CORIS. Fr. Cowries.

CORIUM. Lat. Leather.

CORK.

Kork, Kurk, Vlothout	Dut.	Sampal; Sumbat	Malay.
Liege	Fr.	Cortica, (de Sovreiro)	Port.
Kork	Ger.	Korkowoe: derewo	Rus.
Bhuj	Guz. Hind.	Corcho	Sp.
Sughero, Suvero	It.	Karka	Tam.
Suber	Lat.	Birada	Tel.

Cork is the outer bark of Quercus suber, n evergreen oak abundant in Portugal, Italy, ie south of France, Corsica, and in Spain, [illegible]

Anaj	Hind. Pers.	Graos	Port.
Biade	It.	Chljeb	Rus.
Grani	,,	Granos	Sp.
Frumentum	Lat.	Sad	Sw.
[illegible]	Malay.	Snanna	,,

plants used as ner. *McCul-* 402.

other plants, but [illegible] as in the Quercus suber. It is light, porous, compressible, and elastic, and floats for nets and other articles are cut and shaped out of it. As soon as the bark dies, it falls off in flakes which correspond to the layers that are formed annually. These outer layers the Spaniards collect, the inner living bark should be spared, but the Spaniards strip off the inner bark also, although of no value except for tanning, and its removal destroys the trees. In Corsica, Spain, and a few other countries, where the tree is abundant, the bark is removed for tanning. This bark contains twice as much tannin as oak-bark of average quality. The tannin appears to resemble that of catechu: it affords scarcely any bloom, and gives a dark colour to the leather. At the Madras Exhibition of 1855, two specimens of cork were exhibited, one good, from the "Western Coast Jungles," and another inferior, from Coimbatore; the trees producing the samples were not mentioned. The deeply cracked spongy bark of the "Bignonia suberosa", the country-cork tree, yields an inferior kind of cork.—*M. E. J. R. Eng. Cyc. p.* 148. *McCulloch Dict. of Commerce.*

CORK MARUM. Anglo-Tam. Bignonia suberosa.

CORK-TREE. Quercus suber.

CORMUS. See Colchicum.

CORMORANT, Salach Heb. Cormorants are trained in great numbers in the eastern Chinese provinces to capture fish, and are sometimes under such good order that they will disperse at a given signal, and return with their prey without the precaution of a neck-ring. A single boatman can easily oversee twelve or fifteen of these birds, and although hundreds may be out upon the water, each one knows its own master. If one seize a fish too heavy for it alone, another comes to his assistance, and the two carry it aboard. The birds themselves are fed on bean-curd, and eels or fish. They lay eggs when three years old, which are often hatched under barn-yard hens, and the chickens fed with eel's blood and hash. They do not fish during the summer months. The price of a pair varies from $ 5 to $ 8. See Fisheries.

CORN. Eng. Ger.

Korn	Dan.	Grain	Eng.
Kraanen	Dut.	Korn	Ger.
Goren	,,	Getreide	,,
Bleds	Fr	Dhan	Guz. Hind.

CORNA, a city of ancient Persia. See Fars.

CORN BINDWEED. Eng. syn. of Convolvulus arvensis, *Linn.*

CORNE. Fr. Horn.

CORNEL BERRY. Eng. Cornus sanguinea.

CORNELIAN.

Achaat	Dut.	Agata	It.
Agate	Fr.	Achates	Lat.
Achat	Ger.	Agat	Rus.

A quartzose mineral, found in great abundance in India, classed as one of the inferior gems and largely cut at Cambay, collected from the drift of the Raj Peepla range. Shafts are sunk, to the stratum containing the minerals. These are burnt to bring out the colours and are cut into paper-weights, knife-handles, miniature-sized cups and saucers, tables for snuff-boxes, sets of brooches, necklaces, and bracelets, pins, buttons, and studs. A field gun, with all its appointments, is one of the finest ornamental pieces of Cambay stone work; they sell for from Rs. 40 to Rs. 50. The polish of Cambay stones is not such as pleases the eye of the English lapidary—yet they are so cheap they might be expected to become a considerable article of commerce, and might be built up into mosaics for work tables, into chess-boards and other elegant articles of furniture—the chief part of the work being performed here, where labour is cheap, the final finish being given in Europe. The Cambay agates equal the finest "Scottish Pebbles" in beauty; they generally exceed them in size, and may be had for a mere fraction of the price.

	from Rs.			
Necklaces, Black and Green. ...	7	to	9	each
Do Red	2	do	9	do
Paper Cutters	2	do	5	do
Knife Handles, per dozen... ...	10	do	15	do
Stones for Brooches	1	do	2	do
Snuff Boxes	4	do	15	do
Cups and Saucers	12	do	15	do
Pen Handles...	1	do	2	do
Studs of all sorts, per dozen	1	do	2	
Trowser Buttons, per pair... ...	1	do	2	
Coat do do	12	as	1	
Bracelet Beads of all sorts... ...	12	as	1	each
Paper Weights	½	R.	5	do
Tables of Sizes... ...	15	do	50	do
Guns do ...	35	do	85	do
Earrings, per pair...	1	do	5	do
Finger Rings	8	as	1½	do

In 1844, their exports amounted in value to Rs. 93,478, and in 1845 to Rs. 88,849. See Arts. Cambay. Gems.

CORNUS. A genus of plants consisting of large trees and shrubs, of which several species have been found in the Himalayas, in Sylhet, and Nepaul. C. oblonga occurs in the Deyra Doon; C. macrophylla, and C. nervosa in Mussoorie; and C. capitata, Wall, (Benthamia fragifera, *Lindl.*) Rhumowra. Hind, at a still higher elevation. The fruit of Benthamia is eaten in the hills, and from the seeds of some species an oil is expressed. Wight in Icones, gives figure of C. altera, C. sylvestris, and C. Zeylanica, the bark of the C. florida and sericea are said to be most excellent tonics.—*Riddell. Drs. Riddell, O'Shaughnessy, and Wight.*

CORNU. LAT. HORN.

CORNUS MACROPHYLLA. WALL.

Dogwood	ENG.	Kasir	PUNJABI.
Kandar	HIND.	Kagshi	,,
Kandra	,,	Hales; Harin, Hadu; Harrin, Nang	,,

This is found in the Sutlej valley, between Rampur and Sunguam, and in many parts of the Panjab Himalaya at an elevation of 7000 feet. Its fruit is edible, and goats feed on the leaves, and the wood is made into charcoal employed in the manufacture of gunpowder. —*Drs. Stewart, Cleghorn, Punjab Report. pp.* 64. 80.

CORNUS SANGUINEA. FORSK. syn of Cordia myxa, *Linn.*

CORNUTIA CORYMBOSA. BURM. syn of Premna integrifolia, *Roxb.*

CORNWALLIS, Earl, a great statesman and soldier, who was twice Governor General of India. He had served successfully in Ireland, but in America with great disasters. He was sent out by Mr Pitt to India when the Act of Parliament of 1784 and 1786 was passed to give him supreme power. He instituted great reforms in the habits of the E. I. Company's servants; he was the first to bring about unity of action between the Indian and Home Government, and the first to recognize the duty of paying Indian servants well and to abolish all distinctions between the King's and Company's military servants. In 1788, he received power to bestow local commissions on the latter. His care was directed alike to financial and administrative measures, but also to the moral and social condition of the Anglo Indian community, and in 1793 he issued Regulations which have formed the basis of the administration of justice in India, and gave effect to the long discussed subject of perpetual settlement under a Zemindar class, a system which has been greatly condemned. He went from India to Ireland, and returned to India only to die. He died at Ghazipore on the 5th October 1805.

COROLLIFLORÆ; Plants which have the corol composed of a single piece or petal, into which the stamens are inserted.—*Royle Him. Pl. p.* 302.

COROMANDEL. On the eastern coast of the peninsula of India, is a small village near Pulicat on the marine lagoon of that name. Some suppose it gives its name to the entire eastern coast of the peninsula, generally called the Coromandel coast, this being the name by which Europeans distinguish the line of coast on the western side of the Bay of Bengal. It has been derived also from Cholamandala, which Paolini, the Carmelite, explains to mean the middle country, but most scholars interpret it as the country of the Chola race, the Chola of Tanjore and Combaconum, who were settled near the Cavery and Coleroon rivers, and were one of three hindu dynasties, who anciently held the Tamil country in the South. It is not impossible, however, that the general name has been given from this village of Kurr-mandlum, or Coromandel, Tam. "Black Sand," the village alluded to as on the sea bank of the Pulicat lake, about 35 miles north of Madras, and formerly held by the Dutch.

COROMANDEL WOOD, is the produce of a Ceylon tree of great size having a dingy ground, and sometimes running into white streaks. The figure is between that of rosewood and zebra wood; the colour of the ground is usually of a red hazel brown, described also as chocolate brown, with black stripes and marks. It is hard but the veneer saws cut it without particular difficulty: it is a very handsome furniture wood, and turns well. Mr. Layard says there are three varieties; the Calamander or Coromandel, which is the darkest, and the most commonly seen in England; the Calemberri, which is lighter coloured and striped, and the omander, the ground of which is as light as English yew, but of a redder cast, with a few slight veins and marks of darker tints. He says the wood is scarce and limited to Ceylon, that it grows between the clefts of rocks; this renders it difficult to extract the roots, which are the most beautiful part of the trees. It is also called calamander wood—both names being a corruption of two Singhalese words kalumederiye—*Foulkner. Mendis. Tredgold. Holtzappfel, Fergusson.*

CORONAS. SP. Beads.

CORONE. IT. Beads.

CORONILLA GRANDIFLORA. WILLD. syn. of Agati grandiflora.

CORONILLA PICTA.

Sesbania ægyptiaca.

Nuteeya	BENG.	PurpleFlowered Coronilla	ENG.
Krishna-rajani	„	Kristnah Rajum	SANT
Carin Chembi	TAM.		
Nulla Somutti	TEL.		

This plant is held in high estimation on account of the great beauty of its delicate purple flowers; the leaves are employed as poultices, mixed with a little castor oil, to hasten suppuration. The leaves smell like fresh clover, and are food for cattle. Nuteeya and Nim leaf poultices are favourite external emollients among the native practitioners.—*Ains. Mat. Med. page 75. Beng. Phar. page 390.*

CORONUS. See Koh.

COROSOS or Ivory-Nut, is produced by the Phytelephas macrocarpa, growing in central America and Columbia (*Humboldt.*) The tree is a genus allied to the Pandaneæ, or screw pines, and also to the palms. They are seeds with osseous albumen. The nuts are of irregular shapes, from one to two inches diameter, and when enclosed in their thin husks, they resemble small potatoes covered with light brown earth : the coat of the nut itself is of a darker brown, with a few loose filaments folded upon it. The internal substance of the ivory-nut resembles white wax rather than ivory ; it has, when dried, a faint and somewhat transparent tint between yellow and blue, but when opened it is often almost grey from the quantity of moisture it contains, and in losing which it contracts considerably. Each nut has a hole, which leads into a small, central, angular cavity ; this joined to the irregularity of the external form, limits the purposes to which they are applied, principally the knobs of walking sticks, and a few other small works. It might be introduced into India —*Holtzapfel.*

CORPULENCE is a state of body very frequently seen amongst the richer of the natives of India, caused by the use of a large extent of fatty articles of diet. A tabular statement, taken from a mean average of 2,648 healthy men, was formed and arranged for an Insurance Company by the late Dr. John Hutchinson. It answered as a pretty good standard, and insurances were regulated upon it. His calculations were made upon the volume of air passing in and out of the lungs, and this was his guide as to how far the various organs of the body were in health, and the lungs in particular. It may be viewed as some sort of probable rule, yet only as an average, some in health weighing more by many pounds than others.

STATURE.		SHOULD BE		WEIGHT	
5 feet	1	8 stone	8 or	120	lbs.
5 do	2	9	0	126	do
5 do	3	9	7	133	do
5 do	4	9	10	136	do
5 feet	5	stone	120 or	142	do
5 do	6	10	5	145	do
5 do	7	10	8	148	do
5 do	8	11	1	155	do
5 do	9	11	3	162	do
5 do	10	12	1	169	do
5 do	11	12	6	174	do
6 do	0	12	10	178	do

CORRÆA. The species, mostly shrubs, flowers white and scarlet, each plant requires a tolerable space to grow in, as it attains the height of six or more feet.—*Riddell.*

CORREGIDOR, or Marivales, a principal island on the northern shore of the entrance to Manilla Bay, is 3½ miles long. Its revolving light is in lat. 14° 23' 5" N., long. 12° 34' E.—*Horsburgh.*

CORROSIVE SUBLIMATE.

Bi chloride of Mercury	ENG.	Doppelt Chlorquecksilber	FR.
Sublime corrosif	FR.	Ruscapur	GUZ. HIND.
Bi-chlorure de Mercure	„	Hydrargiri Bi-chloridum	LAT.
		Dar-chigna	PANJ.

This is largely made in India, but in an imperfect manner, and largely used in native medicine. Some very fine specimens were shown at the Panjab Exhibition from Umritsur and Lahore. See Mercury ; Rascapur.

CORSICAN MOSS. See Edible sea-weed. Fucus.

CORTA PLUMAS. SP. Penknives.

CORTE-DE-PALA. PORT. Connessi bark, Wrightia antidysenterica.

CORTES. Hernan, a Spanish navigator who in A.D. 1528 endeavoured to follow up the discoveries of Magellan, took possession of the Marianas or Ladrone Islands, but with the members of all his expedition fell victims to the climate and the hostility of the Portuguese.

CORTEX ELEUTHERII. See Croton Cascarilla.

CORTICA. PORT. Cork.

CORTINARIUS EMODENSIS. BERKELEY. A large mushroom, the "Onglau" of Thibet, a favorite article of food.—*Hooker Jour. Him. Vol. ii., page 47.*

CORUND KA PATHAR. HIND. Corundum.

CORUNDUM.

Adamantine Spar.	ENG.	Karund	HIND.
Samada	GUZ.		

Several substances differing considerably in colour, and sometimes in form but nearly agreeing in composition are classed together under the name of corundum, which is that given to the common variety by the natives of India. This stone is, with the exception of the diamond, the hardest substance known. It is generally of a pale-gray or greenish colour, but sometimes of red and brown tints. It is found in India, China, and in some parts of Europe. The Indian variety is whiter than the Chinese, and is considered the purest. In India, diamond dust is very rarely used, corundum being the chief material employed in polishing gems, marbles, and metals. This mineral is found chiefly in granite or the detritus of granite rocks in the Mysore country and in the neighbourhood of the south-western ghauts. It is brought in considerable quantity to Bombay and is occasionally exported to Europe. It is packed in orange shaped parcels with meridional cordings : the pieces vary from the size of filberts to that of the hand ; they are generally amorphous or fragments of crystals, often contaminated with felspar, mica and other granitic minerals. Sometimes fragments of crystals perfectly pure are to be met with weighing from ten to twenty-five pounds, but these are rare. Though excessively hard, it is by no means tough—it flies in pieces after a few strokes of the hammer, and is easily pulverized in a mortar. The natives generally beat it on an anvil or stone, keeping it from flying about by a collar of cotton rope. The fine particles are separated from the coarse by sifting—the Europe process of lixiviation is not, seemingly, resorted to. For sharpening swords or burnishing metals it is generally used like a whetstone or burnisher, for polishing gems, it is either made up into a cake with lac, or into a paste with oil or grease. It is never employed for the manufacture of emery paper or anything resembling it. For polishing marble or other stone it is used in two forms, viz. that of a cake of about eight inches long, three across and two deep. This is used by an individual in the hand. For heavier purposes a cake a foot square or so is employed placed in a frame. Two men work at this, and the reducing process is very rapidly accomplished by it : it is in fact a file with a lac body and corundum teeth.

The corundums of the Madras Presidency are well known to the people, who use them in mass or mixed in lac, in the form of discs for laps, or wheel grindstones ; they are used by cutlers, &c. also in the form of whets and hones, and ragstones for sharpening the finer and coarser cutting implements used by farriers &c. The native workmen, cutlers, &c. often do not distinguish garnets from corundums, calling both of these emery ; though the differences between the three minerals are so marked, it is difficult to understand how they can be confounded. The corundums of Southern India seem to replace the emery of other countries ; at least, I am aware of only one author who has alluded to the occurrence of emery in Southern India, and the Madras Museum does not contain any substance that merchants would regard as identical with the Turkish or Grecian emery of commerce. The meaning or origin of the word is not very apparent : the mahomedans call it "corund" or "corunj" stone, and the hindoos know it by a somewhat similar name. The first specimens sent to Europe were forwarded by the late Dr. Anderson to Mr. Berry, a lapidary in Edinburgh, as the substance used by the people of India to polish masses of stone, crystal and all other gems, except the diamond ;—and it was then examined by the celebrated Dr. Black, who, from its hardness, named it adamantine spar. Corundum and its varieties, viz. Oriental Sapphire, Corundum and Emery, are only surpassed in hardness by the diamond. They belong to the same class of minerals, and the emery of commerce, which is so extensively used in Europe and imported into England for grinding and polishing metals, glass, &c., is supposed to be a mere variety of corundum, a mixed granular corundum ; a mechanical mixture of corundum and oxide of iron, the iron in some of the varieties amounting to 33 per cent.

No.	Localities.	Effective Hardness Sapphire 100.	Specific Gravity.	Chemical Composition.					
				Water.	Alumina.	Oxide of Iron	Lime.	Silica.	Total.
1	Kulah..	57	4·28	1·90	63·50	33·25	0·92	1·61	101·18
2	Samos ...	56	3·98	2·10	70·10	22 21	0·62	4 00	99·03
3	Nicaria .	56	3·75	2·53	71·06	20·32	1·40	4·12	99·43
4	Kulah ...	53	4·02	2·36	63 00	30·12	0·50	2·36	98·34
5	Gumuch	47	3·82	3 11	77 82	8 62	1·80	8·13	99·48
6	Naxos	46	3·75	4·72	68·53	21·10	0·86	3·10	101·31
7	Nicaria.	46	3·74	3 10	75 12	13 06	0·72	6·88	98·88
8	Naxos...	44	3·87	5·47	69·46	19 08	2·81	2·41	99·23
9	Gumuch	42	4·31	5 62	60·10	33 20	0·48	1.80	101·20
10	Kulah ...	40	3·89	2·03	61·05	27·15	1·30	9·63	101·13

In the mixed corundums of Greece and Turkey, the iron seems equally diffused through the mass, imparting to it a bluish grey colour ; but in the specimens which have reached the Madras Museum from Southern India, the corundum and ore of iron, though occurring together, are not mixed, but remain apart, segregated, the corundum forming one side of a mineral, and the oxide of iron, in a lump or lumps, on the other side ; and all such masses are magnetic and possess polarity.

What prices the several corundums of India might bring in the London market it is difficult to say. There is no reason why the picked corundums should sell for less than the finest emeries, and Captain Newbold mentions that the corundums near Gram, when sorted into the three sorts known in commerce, viz. the *red*, the *white*, and the *scraps*, of these two are sold to the Arab merchants at Mangalore and Tellicherry at prices from twelve to fifteen or thirty rupees the candy, equal to £4, £6, and £12 a ton. Corundum occurs in abundance in several parts of the peninsula of India, in North Arcot, Cuttack, Coimbatore, Guntoor, Mysore, Salem and Hyderabad.

It is also said to be found at Mundium in Mysore, at Gudjelhutty in Coimbatore, at the Tapoor Ghat in Salem, at Chennimully in Coimbatore, and in Cuttack. At Namaul and at Viralimodos, on the north bank of the Cauvery, in the Permutty talook, Salem district, it occurs embedded in gneiss and a greyish earth, resulting in part from the disintegration of that rock. It is found in great abundance in a low hill near the village of Sholasigamany, Trichingode talook, Caranel, Apore, Mallapollaye, and at various localities up the river Cauvery, as far as Cocuorambadi, where it is dug for by the natives in the fields; and there are the remains of many ancient excavations still to be traced. The corundum was formerly sent as an article of traffic to Palghatcherry, and thence to the western coast and various other parts of India. It can still be procured at the rate of from fifteen to thirty measures the rupee, each measure weighing fifty-seven ounces avoirdupois. The caste usually employed in collecting it is the Vittaver. At the Madras Exhibition of 1855, Mr. Rhode exhibited specimens from Guntoor, and remarked of them that experienced jewellers would pick out stones suited for common jewellery from it, and the refuse cannot be worth less than £15 and £20 a ton at home. From Hyderabad was received a very excellent sample of picked stones, possessing an irregularly crystaline structure. Salem and the Mysore country, however, have been the longest known as containing corundum sites, some of which were described at some length by the late Captain Newbold, who mentions its occurrence in the neighbourhood of Gram, a village and fort in the Mysore country about ninety-eight miles westerly from Bangalore, and lying between the latter place and the Western Ghauts, about forty-five miles north by west from Seringapatam, and about seven or eight east by north from the fort of Gram. The following places may be named as sites in Mysore where corundum occurs :—

Nammaul Viralmodos.—On the north bank of the Cauvery, in the Permutty talook.—Newbold.

Sholasigamany, (probably Scholaserameny.) Trichingode talook, near the village in a low hill in great abundance.—Newbold.

Caronel, Aupore, Mallapollye, and at various localities up the river Cauvery as far as Corcorambodi where it is dug by the natives in the fields, and there are remains of many ancient excavations still to be traced.—Newbold.

Gopaulchetty pollium, 50 miles north of Salem.
Yalanerry, Madras Museum.
Coundapady, Madras Museum.
French Rocks, Captain Loudon, in Madras Museum
Golhushully, in the division of Nooghully, Newbold.
Kulkairi, in the division of Chinrayapatam.
Burkunhull, in the division of Chinrayapatam Newbold.
Kundeo, in the division of Chinrayapatam, Newbold.
Yedgunkul, in the division of Chinrayapatam, Newbold.
Norhik, in the division of Narsipur, Newbold.
Deysani Carbonhully in the division of Banawaram, Newbold.
Appianhully, in the division of Harnally, Newbolds
Nullapardy, on the road to Bangalore, Madra Museum.
Mundium, in the Astagram division, Madras Museum,
Cuddoor, in the Nuggar division, Madras Museum.
Nuggar, in the Nuggar division, Madras Museum.

Professor Thomson mentions (Outlines of Mineralogy, volume 1, p. 213) that "the corundum occurs in imbedded crystals in a rock which consists, according to Count Bournon, of indianite, and contains felspar, fibrolite, several varieties of augite, and also octohedral iron ore; the hair brown or reddish brown varieties are called adamantine spar. They occur with fibrolite and octohedral iron ore in a sort of granite containing no quartz." And again (p. 256) he states, that fibrolite is a mineral found accompanying crystals of corundum in the Carnatic, and that it is a component part of the granite, which is the matrix of the corundum of China. Professor Jameson, in his Geognosy of Peninsular India (Ed. Cab. Lib. No. VIII, pp. 349-50) gives a summary of what is known regarding the corundum of Southern India, and states that it occurs embedded in granite and sienite in the district of Salem, in the Madras presidency, associated with cleavelandite, indianite, and fibrolite; but near Gram at Golhushully and Kulkairi, at which the best corundum is said to be obtained, the mineral was found to occur in decomposed beds of a talcose slate, to which gneiss is subordinate, associated with nodules of indurated talc, and of a poor quartzy iron ore; asbestos, chlorite, actinolite, and schorl were found in the talcose slate. Newbold mentions that in the Salem district, also, this mineral occurs embedded in gneiss and a greyish earth, resulting in part from the disintegration of that rock. Rubies have from time to time been discovered in many of the corundum localities just enumerated, associated with this gem, particularly in the gneiss at Viralimodos and Sholasiramany in the Trichingode talook and at Mallapollye, though comparatively speaking rare. Passing, says Captain Newbold, last year through Gram, I was informed that corundum was found in its vicinity; at Golhushully, in the division of Noogyhully; at Kulkairi, Burkunhulli, Kundeo, and Yedgunkul, in that of Chinrayapatam; at Norhik, in Narsipur; at Deysani, Curbonhully, in Banawaram, and at Apyianhully in that of Harnhully. At Golhushully and Kulkairi, the best corundum is said to be obtained. The formation around Gram is gneiss associated with protogene. Proceeding from it in a westerly direction, the northern shoulder of the insulated range, south of the village of Belladaira, running nearly north and south is crossed, and the soil suddenly changes from a light sandy colour to a deep red. The surface of this soil is covered with fragments of a ferro-siliceous schist, with quartz in alternate layers. The natives have a tradition that gold was formerly got from this hill which is not at all improbable, as it is found in similar gangue near Baitmungalum, sixty-one and a half miles east from Bangalore, and at Malliyalum, near the south-west border of Mysore in Coimbatore. Minute grains occur in the sandy bed of a brook there. A little farther west, where the talus of the mountain subsides into the plain, the gneiss reappears alternating with talc slate in nearly vertical strata. The dip, as observed in an adjoining nullah between the mountain and the village of Belladaira, is to the east by north, and the direction of the strata N. 22° east. The corundum mines of Golhushully lie four or five miles north-east of this place, and those of Kulkairi about a mile farther. The surrounding country is a succession of smooth slightly convex plains except to the south-east, where the gneiss rises above the soil in a rocky ridge, terminating in a knoll about 700 yards to the east by south of the mines to which it descends, rising again into a slope to west north-west of the mines, on which lie fragments of a light brown compact quartzy iron ore. Nearly at the bottom of this stone are the mines, from which the ground descends on both sides, to the north-west to a tank, and towards the south-east to the village of Golhushully, about a mile distant.

The chert, and a dark red ferruginous jasper are used by the natives as flints. Salt springs occur in the vicinity. The wells about Gram are both sweet and brackish within a short distance, and a fragment of rock salt was found in the green earth of the mine. A little to the east of Kulkairi is a low plain nearly covered with a white travertine, partly compact, partly cellular, resembling that found in the bed of the Cavery at Seringapatam.

Mines of Kulkairi.—The corundum mines at Kulkairi are situated both near the summit and at the foot of the excavations, of the rising around there. There are a series of excavations varying from two to twelve feet in depth, sunk perpendicularly through similar strata to those just described. The corundum is thrown out, cleared, and separated by the miners into four classes, viz., the red, the white, the scraps of both, and the refuse. The three first form the article of commerce, which is carried to Mangalore and Tellicherry; and sold to Bombay and Arab merchants at prices from twelve and fifteen to thirty rupees the candy, according to its quality. The contractor for corundum in Mysore took the mines for two years, for which he was to pay the sum of 530 Canteray pagodas. The former contractors paid 500 for two, or 250 for one year. The corundum is used by natives, pounded as emery, to polish precious and other stones, particularly granite and basalt. It is also mixed for this, and other purposes, with melted lac, in fine and coarse powders, as we use a mixture of glue and sand.

Common Corundum, or Adamantine spar, occurs, like the sapphire and ruby, commonly in the secondary form of 6-sided prisms, but usually much larger. It is sometimes nearly colourless, and rather translucent; it presents great variety. grayish, occasionally brown or red, rarely blue. Although its most common form is the 6-sided prism, it occurs, though rarely, also in acute and obtuse double 6-sided pyramids.

Corundum pebbles are found in "the gem-sand of Ava river;" and they probably exist in the sands of some of the rivers in the Tenasserim provinces.

Prismatic corundum or chrysoberyl, is found amoung the Tora hills near Rajmahal on the Bunas, in irregular rolled pieces, small and generally of a light green-colour; these stones are considered by the natives as emeralds, and pass under the name of "punna," but the natives are aware that they are softer than the real emerald of India which is generally green-coloured sapphire.

Sapphire, of which there are several varieties, the names of which are dependent chiefly upon their colour: the White Sapphire, which is transparent or translucent; the Oriental Sapphire, which is blue; Oriental Amethyst, which is purple; the Oriental Topaz, yellow; the Oriental Emerald, green: some other varieties occur, as the Chatoyant and the Opalescent Sapphire.

Ruby.—Colour blood-red or rose-red, sometimes a tinge of violet; generally occurs in 6-sided prisms. It is not so hard as the sapphire, and is more readily cleaved. Like the sapphire, it consists of pure alumina. "The largest oriental ruby known was brought from China to prince Gargarin, governor of Siberia; it afterwards came into the possession of prince Menzikoff, and constitutes now a jewel in the imperial Crown of Russia."—*Dana. Engl.Cyc. page* 151. *Report for* 1856 *on the Government Central Museum Madras, by Edward Balfour, Officer in Charge. M. E. Jur. Rep. Dr. Mason. Captain Newbold, Irvine Gen. Med. Top. of Ajmir. p.* 150.

CORUNGA MUNJI-MARAM. TAM. Rottlera tinctoria. See Capilapodi.

CORUNJ STONE, ANGLO-HIND. Corundum.

CORVIDÆ, a family of birds sub-order Passeres, sub fam. A. Corvinæ, 1 gen. 7 sp. viz. A. Crows, Corvus culminatus; corone; cornix, splendens, macrorhynchus, frugilegus. The genus corvus has no representative in all South America, nor in New Zealand, nor in the numerous archipelagos of the Pacific, and there is one species only in Australia. Levaillant's raven of South Africa, described by him as identical with that of Europe, has been sought in vain by subsequent observers in that region Corvus corax, the raven, takes the circuit of the northern regions; rare in N. Africa, Punjab Kashmir, Afghanistan; a Tibetan species considered distinct, but probably on insufficien evidence. The true raven is pre-eminently a bird of the coldest climates: though a few occur so far southward as in the Barbary States in America so low as in the Carolinas, and i India proper within the Punjab only. "Th raven," remarks Sir John Ross, "is one o the few birds that are capable of braving the severity of an arctic winter." In the fearfu cold of a northern Siberian winter; von Wrangell says that when "even the reindeer seeks the forests to protect himself from its intensity: in the tundra, equivalent to the 'barren-grounds' of Arctic America, where there is no shelter to be found, the whole herd crowd together as closely as possible to gain a little warmth from each other, and may be seen standing in this way, quite motionless. Only the dark bird of winter, the raven still cleaves the icy air with slow and heavy wing, leaving behind him a long line of thin vapour, marking the track of his solitary flight." The Tibetan raven is considered as a peculiar species by Mr. Hodgson, an opinion to which the Prince of Canino seems to incline: it may be presumed to inhabit the lofty mountains of Butan to the north, but the smaller crow of Southern Asia is the C. splendens; while the common black crow of all India, C. culminatus, would seem to stand here alike for the 'raven,' the 'carrion crow' and the 'rook!' The true rook, Corvus frugilegus, however, is known to inhabit or visit the Peshawur valley, Afghanistan, and Kashmir. The rook of China and Japan is considered a distinct species, C. pastinator of Gould; and the jackdaw, C. monedula, accompanies it in those countries, while the true northern raven Corvus corax, is met with not only there, but also over a great portion of the Punjab. In other parts of India the comparatively small C. culminatus is popularly known to Europeans as "the raven:" but the northern raven would make a meal of one and not feel much the worse for it. See Birds, Corvus.

CORVINUS, a genus of fishes, several species of which, C. bola, C. chaptis and C. coitor furnish isinglass. Corvinus bola. *McClell.*, Bolo Chaptis, *Buch.*, furnishes the isinglass which Mr. O'Riley sent to Calcutta from Amherst. It is closely allied to C. niger, but of monstrous dimensions compared with the European species. This is the fish, the jawbone of which is described as "Boalee".—*Mason. McClelland.* See Fish.

CORVUS ADVENA, a rare black and white crow of Celebes; occurs along with Cittura cyanotes, the forest king-fisher of Celebes; Meropogon Forsteni; Carpophaga Forsteni, a fruit pigeon of North Celebes; Buceros cassidix, the great hornbill of Celebes. Trichoglossus ornatus, a beautiful brush-tongued paroquet.

CORVUS CORONE, the Carrion Crow of Europe, Afghanistan, (Pushut) Japan apud Temminck, is replaced in India by C. culminatus.

CORVUS CORNIX. ('Hooded Crow.') Europe, Asia Minor, Afghanistan, Japan (Temminck), Barbary.

CORVUS CULMINATUS. See Corvidæ.

CORVUS FRUGILEGUS. 'Rook.' Europe, N. and W. Asia, Afghanistan, Peshawur valley, Kashmir: replaced in China and Japan by C. pastinator. The true rook (Corvus frugilegus) is known to inhabit or visit the Peshawur valley, Afghanistan, Kashmir (the rook of China and Japan being considered a distinct species, C. pastinator of Gould;) and the jackdaw (C. monedula) accompanies it in those countries, while the true northern raven is met with not only there, but also over a great portion of the Punjab. In other parts of India the comparatively small C. culminatus is popularly known to Europeans as "the raven:" but the northern raven would make a meal of one and not feel much the worse for it. See Birds.

CORVUS MONEDULA, the 'Jackdaw' of Europe, Siberia, Barbary, W. Asia, Peshawur valley, Kashmir.—*Cat. Birds. B. As. Soc. Eng. Cyc.* See Birds.

CORVUS PASTINATOR. See Corvidæ.

CORYDALIS, a genus of plants belonging to the sub-order Fumareæ, the fumitory tribe. There are sixteen species some of which are grown as ornamental plants.

CORYDALIS GOVANIANA, WALL, Bhootkes, *Hind*, is common above 8,000 feet of elevation, in the Choor mountains, where it is regarded as a charm against evil spirits. The roots sent by Dr. Falconer were long, fibrous, tough, and exceedingly bitter; dark brown externally, yellow within.—*O'Shaughnessy, p.* 185.

CORYDALLA CAMPESTRIS. A common Euıopean bird which even abounds in the southern parts of Sweden, but has not hitherto been observed in Britain, is also common in parts of India.

CORYDALLA RICHARDI, (Anthus Ricardi; 'Richard's Pipit.') Europe, Asia, N. Africa, common in India; very rare in Britain. See Birds.

CORYDON. Captain Tickell found Leiothrix argentauris and Siva strigula, about the sides of Mooleit. Stachyris nigriceps, in hilly forests 3,000 feet. Eurylaimus Javanicus is not common, at least it is not often seen; being very quiet and secluded, though excessively tame, and not crepuscular like Corydon. Serilophus lunatus are much freer flyers than Eurylaimus. He found them once in a flock hurying about like Titmice, but very high up.

CORYDON SUMATRANUS is a singular and rare bird. Of its habits little or nothing is known. However, it is crepuscular (very likely diurnal as well.) and so stupid or tame as to allow itself to be pelted without moving.

CORYGAUM, a small village on the right bank of the Bheemah river, half way between Poonah and Seroor on the Gor-naddi. It is memorable for the defence made on the 1st of January 1819, by a small body of Madras Artillery and Native Infantry, about 500 strong, against the entire army of Bajee Rao, peshwa. About 4000 Arabs continued the attack from day break till dark, Asst Surgeon afterwards Sir James Wyllie, of the Madras medical department, greatly aided in their repulse. The Indian Government erected a monolith column, on which are engraved an account of this defence, and the names of the dead and the survivors.

CORYLUS, a genus of plants belonging to, the order Cupelliferæ. C. lacera and C. ferox are found in the Himalaya.

CORYLUS AVELLANA. The Hazel is abundant in the Himalaya. Fruits (nuts) called Bindik and Finduk in bazars, are grouped in clusters together, inodorous, taste sweet and agreeable, become rancid very quickly. By expression the kernel yields a very agreeable oil, nearly in the proportion of half its weight. The wood of the hazel was the material of the divining rods of the magicians and snake enchanters, who even in modern times have had their believers in Europe.—*O'Shaughnessy page* 609.

CORYLUS COLURNA, LINN.

var B. lacera,		C. Jacquemontii.	*Dne*
C. lacera,	*Wall.*	Thangi ; thaugoli	PANJ,
Hazel	ENG.	Sharoi ; sharoli ; shurlige	„
Urrvi	PANJ.		
Iviuri ; ivuria ; wir	„		

This tree grows to a height of 40 feet, at elevations of 5,500 to 10,500 feet in the Punjab Himalaya; wood light and compact; the nuts edible—*Drs. Cleghorn and J.L. Stewart.*

CORYPHA, a genus of palms of the order Cocoaceæ, Sec. D. Corypheæ. C. elata and C. taliera grow in Bengal; C. rotundifolia and C. utan grow in the Moluccas, C. umbraculifera grows in Ceylon and the Moluccas and C. gebanga grows in Java. It seems to be C. gebanga which Mr. Wallace (p. 158) describes as a great species in Lombok, called "Gubbong," which grows there in great abundance. It has a lofty cylindrical stem, about a hundred feet high and two or three feet in diameter. It flowers only once in its life in a huge terminal spike on which are produced masses of a small round fruit, of a green colour and about an inch in diameter; when these ripen and fall, the tree dies, and after standing a year or two, it too dies. Flocks of green pigeons, and troops of the Macacus cynomolgus monkeys resort to the trees when fruiting, the latter chattering and showering down the ripe fruit.

C. gebanga has its young leaves plaited into baskets and bags, affording much employment to the people in Java. The leaves are also employed for thatching, and for making broad-brimmed hats. C. taliera, the Tara of Bengal and the Talipat of the Peninsula, is much employed for making leaf hats and leaf umbrellas; the leaves, moreover, when smoothed, are much used for writing on, and also for tying the rafters of houses, as they are strong and durable. C. umbraculifera, the Codda-panna of Madras, and the Talipat of Ceylon, and very like the former, is common in Ceylon, and found also on the Malabar coast. Of this, the dried leaf is very strong and limber—and, according to Knox, "most wonderfully made for men's convenience to carry along with them; for though this leaf be thus broad enough to cover fifteen or twenty men when it is open, yet it will fold close

&c." "It is evident," continues Mr. Colebrooke, "that the guest's intercessions imply a practice, now become obsolete, of slaying a cow for the purpose of hospitality."—*Ibid*, *p.* 293. In the Hitopadesa, (p. 110,) the earth is called Surabhi, and the learned translator (Wilkins) notes the same to be not usually so applied, although the earth may well be called the cow of plenty.

The custom, in India, of using cow-dung for smearing floors and walls, is practised by all sects, as well as hindus, as the most cool and cleanly appliance. Cow-dung is plastered over the cooking-place before the meal of a person of a high class is cooked ; in camps, or on journeys, a space of 10 or 12 square feet is so purified ; but is easily polluted by the approach of impure persons or things ; in which vexatious case the food becomes unholy. The ashes of cow-dung "vibudi" are also of a very purifying nature ; and hindus, of almost all ranks and degrees, men and women, occasionally, or frequently use them, mixed sometimes with other ingredients, to mark their forehead, necks, arms, &c. Sometimes men, especially religious mendicants, or penitents, or those having some claims to sanctity, are rubbed all over with these ashy mixtures, and present a curious sky-blue appearance. Mahadeva is frequently painted blue or rather of an ashy colour, and the classes just noticed perhaps imitate that deity—or Krishna, also a deity of a blue or black hue. The ceremony of Karshagni is obtained from a use of the cow-dung : on one occasion of its performance, it happened, according to a legend, that a crow, named, from her friendly disposition, Mitra-caca, was present, and immediately flew and imparted the welcome news that a hindu who performs the karshagni, goes to heaven. This expiation consists in the victim covering his whole body with a thick coat of cow-dung, which, when dry, is set on fire, and consumes both sin and sinner. Until revealed by the crow this potent expiation was unknown ; and it has since occasionally been resorted to particularly by the famous Sankaracharya. The friendly crow was punished for her indiscretion ; was forbidden and all her tribe to ascend to heaven and was doomed on earth to live on carrion.—(*See Wilford.*) Amongst hindus, the greatest of all purifiers is the urine of a cow ; hindu spirits of impurity abhor this sin expelling, sanctifying, liquid. Images are sprinkled with it ; no man of any pretensions to piety or cleanliness would pass a cow in the act of staling without receiving the holy stream in his palm sipping a few drops ; and with his bedewed fingers, marking and crossing his forehead, shoulders, and breasts.—*Moor's Pantheon*, *p.* 143. *William's Story of Nala*, *p.* 136. *Kennedy on the Origin of Languages*, *p.* 43. *Wilford Colebrooke*, *p.* 276. *Coleman*, *p.* 293.

COWA. HIND. Garcinia cowa.

COWAGE. FR. See Cowhage.

COW BEZOAR, and bezoars from all ruminating animals, always find a ready market in China, where Chinese doctors lay it up as a rare medicine. They are not unfrequently deceived by an artificial preparation of pipe-clay and ox-gall mixed wlth a little hair.—*Williams' Middle Kingdom*, *Vol.* II, *page* 406. See Bezoar ; Calcucus.

COW-DUNG BRATTIES.

Peda, also Gomayam,	TEL.	Shani,	TAM.
Pidda-calu	,,		

Bratties are dried cowdung cakes. With water, cowdung forms a useful wash for walls, and floors, and it enters into the composition of the farriers' fomentations : it hides bad joinery, but its chief use is in forming bratties for fuel. The ground cropped by cattle and which supplies straw, ought to receive it back before it is reduced to ashes : till this be done, lands must be unduly exhausted. Cowdung is frequently mixed with paddy husk and earth. This fuel is much used in Southern India for burning bricks and chunam, also for heating iron tyres for tyring wheels, for which purpose it answers better than any other. It is more economical than any other fuel, it has a disagreeable smoke, but when thoroughly ignited, the heat they give out is very intense.—*Rhode MSS.*

COW-DUNG ASHES BALLS. Tirunur unde, TAM. Vibudi, TEL.

COW-GRASS. Trifolium medium.

COW-PLANT. Gymnema lactiferum.

COWDEE. Cowdee means a shell. Also the seed of Aristida setacea, a wild grass ; also, the seed of Exacum bicolor, also, the seed of the wild grass Kusai.

COWDUN, also Jerz, PERS. Bustard.

COWFISH. Globiocephulus Rissii.

COWHAGE.

Al-kushi	AR.	Atmagupta	SANS.
Kiwach	BENG. HIND.	Kosam billi wail	SINGH.
Kaunchkuri	DUK.	Puney kali	TAM.
Cowage	FR.	Pilla-dugu kailu	TEL.
Kuhkratze	GER.	Enuga-dola-Gumda	,,
Rawe	JAV.		

Cowhage, probably a corruption of the Arabic or of Hindustanee and Bengali names of one of the plants that produce it, consists of the hairs found upon pods of different species of Mucuna. They are exceedingly slender, brittle, and easily detached, and the fragments readily stick into the skin and produce an intolerable itching ; hence they are frequently employed for mischievous purposes. Cowitch is also used medicinally as a vermifuge, by being mixed with syrup till of the consistence sent out Antonio d' Abreu to search for the Spice Islands. On his way eastward, D'Abreu touched at Agasai (Gresik) in Java. In 1511, the Portuguese visited Bantam. Ludovico Barthema was the first European who described Java from personal observation, but some of his statements as to the cannibal propensities of the inhabitants are questionable. In 1596, the Dutch, under Houtmann, first arrived off Bantam, and found the native king at war with the Portuguese. They lent him aid, on condition of having land allotted for a factory. In 1610, the Dutch fortified the village of Jacatra which they named Batavia. In 1619, this was destroyed, but it was then rebuilt by Mr. Bolt, the Dutch governor general, and this was the beginning of the present town of Batavia. In 1811, when France overran Holland, the flag of France was hoisted at Batavia, but in the same year the British captured it, only to restore it on the 19th August 1816. Java up to the 13th century was partly hindu, partly buddhist, partly mahomedan, but in the 15th century, mahomedanism took the lead, and in 1475 a mahomedan prince took the throne at the overthrow of the great kingdom of Majapahit, which had dominion over the whole of Java and the eastern parts of Sumatra. In 1749, the reigning prince abdicated in favour of the Dutch East India Company. Seven years prior to that event, the sovereignty had been divided into a spiritual head, the "Susunan" or "object of adoration," whose descendants now reside at Surakarta near Solo, and a second prince who was styled sultan, and whose descendants reside at Jokyokarta, both of them highly pensioned.—*Bikmore, p.* 22.26.

COW. In many of the Aryan and non-Aryan tongues this is known as go, ngau-gu, or gai, thus the terms for a cow and ox are

Go, Gous pl	SANSK.	Chuowi	OLD HIGH GERM,
Gao	ZEND. PERS.	Gao	HIND.
Bous, also, Boes	GREEK.	Gow	LETT.
Bos : Bovis	LATIN.	Gai	HIND.
Chuo	OLD HIGH GERM.	Coo	SCOTCH.

A good milch cow should have a good looking udder, fine skin and fine tail. In British India, a cow gives two to six seers of milk daily. Herdsmen of villages take out cows daily to graze, receiving 2 to 8 annas a month. In ancient Egypt the cow was a sacred animal as also were the bulls Apis and Mneves. At present, the cow is worshipped amongst all hindus, and the Banjara are perhaps the only race in British India who apply the cow to labour.

When the cow worship was introduced into India, is unknown. The Vedas do not enjoin reverence to the cow, and in the marriage ceremony of some parts of the country, where a milk cow, Surabhai, is released on the intercession of a barber, sufficient remains to show that the sacrificial rate of killing a cow was formerly practised at marriages, for the sake of hospitality. The male buffalo is, however, frequently sacrificed, by non-Aryan races, sometimes in considerable numbers; and, only in 1859, the Government of Madras ordered the Magistrate of the Krishna Division to forbid the cruel rite of Ammavaru, wherein bullocks are impaled alive to appease the goddess Devi, and avert cholera. On that occasion, in a small village, twelve or twenty-four bullocks were sacrificed, as also several hundred sheep, and the heads of the sacrificed buffaloes were carried in procession on the heads of men. In hindu mythology, the Cow of Plenty, granting all desires, is fabled to have been produced at the churning of the ocean by the Sura and Asura, after the deluge, for the recovery or production of the chaoda-ratna or fourteen sacred things. Another fabulous cow, the cow of five colours, or "panch warna," is probably the famous cow Kam deva given by Indra to the parents of Rama. Amongst hindus, the donation of a milch cow is attended by many ceremonies, finishing with prayers, the acceptor, during the recital, holding the sacred animal by the tail. The boon-granting-cow Surabhi and her descendants are much revered by all classes of hindus above those that may be denominated base. It is common for brahmans and others to feed a cow before they take their own breakfast, ejaculating, as they present their food, "daughter of Surabhi, framed of five elements, suspicious, pure, holy, sprung from the sun, accept this food by me; salutation unto thee!" Or, if he conduct the kine to grass, "May cows, who are mothers of the three worlds and daughters of Surabhi, and who are beneficent, pure, and holy, accept the food given by me.—(*Colebrooke As. Res. vol.* vii. *p.* 276.) In marriage ceremonies a cow is one of the actors; the hospitable rites are conducted by letting loose a cow, at the intercession of the guest, a barber, who attends for that purpose, and exclaims, 'the cow! the cow!' upon which the guest pronounces this text—"release the cow from the fetters of Varuna. May she subdue my foe, may she destroy the enemies of both him (the host) and me. Dismiss the cow, that she may eat the grass and drink water." When the cow has been released, the guest thus addresses her, "I have earnestly entreated this prudent person, saying, kill not the innocent harmless cow, who is mother of the Rudra, daughter of the Vasu sister of the Aditya, is the source of ambrosia

COUNTRY SARSAPARILLA. Hemidesmus Indicus. *R. Brown.*

COUNTRY WALNUT. Eng. Aleurites triloba. *Forst.*

COURMARINE, an aromatic principle, found in Melilotus officinalis, *Linn.*, or common Melilot, and in the Tonquin bean, Dipterix ordorata.

COURPAUM. See Kimedy.

COURSE. A term applied by European residents in India to the places of evening promenade, which has probably been obtained from the 'corso' of Southern Europe.—*Sir Henry Elliot.*

COURT, M., a general of Ranjit Singh. He had been a lieutenant of the Old Imperial French guard.

COURTALLUM, a town near Tinnevelly, in the Arangole Pass.

COURTEZAS DE CITRA. Sp. Lemon peel.

COUSIK, a tribe of Sombunsee rajpoots; but their name would seem to imply brahminical descent or connexion.—*Elliot.*

COUTEAUX. Fr. Knives.

COUVADE, custom amongst several ancient tribes. Marco Polo mentions that in the Zar-dandan (gold teeth) tribe, on the frontiers of Burmah, when a woman bore a child, she rose and went about her business, and the husband took to bed for forty days, and was fed on possets. A Greek epic treats entirely on the same subject, as customary amongst a people on the Euxine.

In the Tibarenian Land,
When some good woman bears her lord a babe,
'Tis he is swathed and groaning put to bed;
Whilst she arises, tends his baths, and serves
Nice possets for her husband in the straw.

Marco Polo in the thirteenth century seems to have observed the custom in the Chinese province of West Yunan amongst the aboriginal tribes of the land, the Miautze, who practice it to the present day. The father of the new born child, so soon as the mother can leave her couch, gets into bed and there receives the congratulations of acquaintances. About the beginning of the christian era, Strabo (iii. 4,17) mentions that among the Iberians of the north of Spain the women after the birth of a child, tend their husbands putting them to bed, instead of going themselves. In the same locality, amongst the modern Basques in Biscay, M. Michel found the same custom prevailing a few years ago. The women, he says, rise immediately after childbirth and attend to the duties of the household, while the husband goes to bed, taking the baby with him and thus receives his neighbours' compliments. This practice seems to have spread to France and to have there received the name of faire la couvade. It has been found in Navarre and on the French side of the Pyrenees. Diodorus Siculus mentions that in Corsica the wife was neglected and the husband put to bed and treated as the patient. According to Apollonius Rhodius, the same singular custom prevailed among a people called the Tibareni at the mouth of the Black Sea. Amongst the Caribs of the West Indies, the father is put to bed and fed on meagre diet and his body punctured and tortured, and the Abipone husband of S. America is treated like a lying-in woman.—*Max Muller Chips. Apoll. Rhod. Arçon* ii. 1012. *Tylor's Early History of Mankind quoted in Quarterly Review, July* 1868.

COUNT DE LIPPE, see Kampfer, Ngelbert.

COUZ-COUZ. African. Holcus spicatus.

COVAI KAI. Tam. Bryonia coccinia, also Bryonia grandis.

COVELLIA GLOMERATA, Miq.

Ficus glomerata. Willed. | Atteekka-gass. Sing.

Common in Ceylon on the banks of rivers and up to 2,000 feet.—*Thw. Enl. Pl. Zeyl. p.* 267.

COVELLIA OPPOSITIFOLIA. Gaspar.

C. Dæmonum Miq. Ficus oppositifolia Willd.
C. Assamica „ F. Dæmonum Vahl.
C. Dasycarpa
Kota-dimboola-gass Singh.

Very abundant in the warmer parts of the Ceylon island.—*Thw. Pl. Zeyl. p.* 266.

COVELONG, a small hamlet on the sea coast, 20 miles south of Madras.

COVILHAM, Pedro da Covilham and Alfonso de Payva, were sent as merchants in 1494, via Genoa, Alexandria, Cairo and the Red Sea, to Aden, where they separated to meet again at Cairo, in Abyssinia, Payva, to search for Prester John, whom he heard of as reigning there over a highly cultivated people, but he died before reaching Abyssinia. Covilham went on to India, where he made drawings of cities and harbours, especially, Goa and Calicut. Thence he returned along the coast of Persia to Cape Gardafui, and continued south to Mozambique and Zofala, where he ascertained that that land joined the Cape of Good Hope. From Zofala he returned to Abyssinia and sent his diary, charts, and drawings to Genoa by some Portuguese merchants who were trading to Memphis. On receipt of these, king Emanuel, in 1495, sent four ships under Vasco de Gama, who visited Natal and Mozambique, in 1498 he was at Calcutta, in 1499 back at Lisbon.

In 1509, the Portuguese leader Sequiera entered the Eastern Archipelago. In 1510, Alfonso Albuquerque visited Sumatra, and in 1511, took Malacca, which he fortified, and difficulty, therefore, is experienced in making use of this very abundant cotton-like produce; but Mr. Williams, of Jubbulpore, succeeded in spinning and weaving some of it, so as to form a very good coverlet. It is used for stuffing pillows, muffs, and coverlets, for wadding, or for conversion into half stuff for paper-makers, perhaps for making guncotton. In the 'Trans. of the Agri-Hortic. Soc.,' iii. p. 274, there is a report from the Society of Arts on two pieces of cloth made from the Simool or Silk Cotton tree; and it is observed that, from the shortness of the staple of the down, and its elasticity, it could not be spun by ordinary cotton spinning machinery.—*Royle's Fib. Plants.*

COTTON, TOILE DE COTTON. Fr. Calico.

COTTON TREE, RED. Salmalia Malabarica, *Schott.*

COTTON TREE. Eriodendron anfractuosum.

COTTON, General Sir Willoughby, G. C. B. and K. C. B., died on May, 1848—at his residence in Lowndes square. Sir W. Cotton, like his kinsman Field-Marshal Viscount Combermere, achieved an honourable career in the British army, his services having extended over a period of upwards of 60 years. He was the only son of Admiral Cotton, cousin of Lord Combermere, and a nephew of Sir Willoughby Aston Willoughby, and was born in 1783. When in his 16th year he left Rugby school to enter the 3rd Guards as ensign. In 1805 he accompanied his regiment in the expedition to Hanover. After his return from Germany he was, in 1807, engaged with his regiment in the expedition to Copenhagen, where he was appointed deputy assistant-adjutant-general to the reserve, under the Duke of Wellington, and was present at the battle of Kioge. In 1809, he accompanied the duke to Spain, and served as deputy assistant-adjutant-general to the Light Division during the whole of the campaign of the retreat to Torres Vedras, and the subsequent advance, the former containing a series of skirmishes, and the battle of Coa, under General Crawford. In 1811 he returned home on promotion, but rejoined the army in the Peninsula in 1813, and served until the close of the war. He was present at the battle of Vittoria, commanded the light companies at the passage of the Adour, and the pickets of the 2nd Brigade of Guards at the repulse of the sortie of Bayonne, besides other engagements of minor importance. He received the war medal and three clasps for Busaco, Vittoria, and Nive. In India he commanded a division of Sir Archibald Campbell's army in the Burmese war. He commanded the 1st division of the Bengal army in the Afghan war in 1838-39, under general Sir Henry Fane, and afterwards under general Sir John Keane, in which army were many names illustrious in the military annals of British India, Nott, Dennie, Sale, Willshire, Wheeler, Outram, and Havelock. He was present at the storming and capture of Ghuznee on the 23rd of July, 1839, at which he commanded the reserve which entered the city after the storming party had established themselves inside. His name was honorably mentioned in the despatches of Sir John Keane, and in those of the Governor-General, Lord Aukland. In October 1839, he relinquished the command of the Bengal forces, then in camp near Cabul, to assume a command in the Bengal Presidency. He was from 1847 to 1850 Commander-in-chief at Bombay, and was second member of council in that Presidency. He received the Order of the Bath of all the grades, being nominated a Grand Cross of that Order in 1840. He was made a Knight Commander of the Royal Hanoverian Guelphic Order in 1830; and had conferred upon him the Order of the Doorance Empire of the 1st class at Cabul, in September 1839.—*Men of the Time.*

COTTUS. A genus of Fishes belonging to the section Acanthopterygii and family Loricati, *Jenyns.—Eng. Cyc. p.* 147. See Fishes.

COTULA ALBA. Linn. Syn, of Eclipta erecta, *Linn.*

COTUM BARRU. Sing. Coriander seed.

COTURNIX, a genus of birds, of the order Rasores, 4 species of which occur in India. Coturnix vulgaris, the common quail of Europe, Asia, Africa, is chiefly migratory and is abundant in India, though M. Gould considers the race of this country to be distinct. See Birds.

COUNTRY. A word in use amongst the British in India, prefixed to other words, to indicate a product of India. It is a translation of several vernacular words, used to express an article local and not foreign. The Tamul word "Nat" has this signification.

COUNTRY ALMOND TREE. Eng. Terminalia catappa.

COUNTRY BORAGE. Coleus amboinicus, *Lour.*

COUNTRY FIG TREE. Eng. Ficus racemosa, *Linn.*

COUNTRY GALLS. Myrobalan.

COUNTRY GOOSEBERRY. Cicca disticha. See Gooseberry. Grossulareæ.

COUNTRY GREENS. Eng, Amarantus oleraceus, *Linn.*

COUNTRY KREAT. Eng. Exacum bicolor. Chiretta.

COUNTRY MALLOW. Abutilon Indicum.

COUNTRY ROSIN. Dammer.

ple. During the process of preparing the thread, and before it is warped, it is steeped for a couple of days in fine charcoal powder soot, or lampblack mixed with water, and after being well rinsed in clear water, wrung out, and dried in the shade, it is rubbed with a sizing made of parched rice, (the husk of which has been removed by heated sand) fine lime and water. The loom is light and portable, its cloth and yarn beams, batten, templet and shuttle, are the appurtenances requisite for weaving. The principal varieties of plain muslins manufactured at Dacca, were Mul mul-i-Khas, Ab-ruwan, Shub-num, Khasu, Jhuna, Circar Ali, Tunzeb, Alabullee, Nyanzook, Buddun Khas, Turundum, Surbutee, and Surbund—names which either denote fineness, beauty or transparency of texture, or refer to the origin of the manufacture of the fabrics, or the uses to which they are applied as articles of dress. The finest of all is the Mulmul-i-Khas, (literally muslin made for the special use of a prince or great personage). It is woven in half pieces, measuring 10 yards in length, and 1 yard in breadth, having 1,900 threads in the warp, and weighing 10 Siccas, (about 3¾ ounces Avoirdupois.) The finest half piece seen weighed 9 Siccas. The price is 100 Rupees. Some of the other muslins are also beautiful productions of the loom, as ab-ruwan, compared by the natives from its clear pellucid texture to "running water." Shub-num, so named from its resemblance when it is wetted and spread upon the bleaching field to the "evening dew" on the grass. Jhuna, a light, transparent net-like fabric, usually made to order, and chiefly for natives of rank and wealth, worn by the inmates of zenanas and dancers, and apparently the cloth referred to in the Classics under the figurative names of Tela arenarum Ventus textilis. All these muslins are made in full pieces of 20 yards in length by 1 in breadth, but varying considerably in the number of threads in the warp, and consequently in their weight. Of figured fabrics, as striped (Doorea), chequered (Charkanee), and flowered (Jamdanee), there exists a considerable variety, both in regard to quality and pattern. The flowered muslin was formerly in great demand both in India and Europe, and was the most expensive manufacture of the Dacca "Urung." There was a monopoly of the finer fabrics for the Court of Delhi: those made for the emperor Aurungzebe cost 250 Rupees per piece. This muslin is still much admired, but is now seldom manufactured of a quality of higher value than 80 Rupees per piece. Omitting the second-rate kinds of cloth, as Saree, Boonee, Bafta, Joru, Ekpatta, Gamcha,

ported into the district, and which constitute the great bulk of the Dacca cotton manufacture, the next class worthy of attention is that of fabrics of a mixed texture of cotton and silk. They are designated by various names, as Nowbuttee, Kutan, Roomee Apjoola and Lucka, and when embroidered with the needle as many of them frequently are, they are called Kusheeda. The silk used in their manufacture is the indigenous muga silk of Assam and Sylhet, but the cotton thread employed is now almost entirely English yarn, of qualities varying from No. 30 to 80. These cloths are made exclusively for the Jedda and Bussora market, and a considerable stock is yearly imported in the Arab vessels that trade between Calcutta and these ports. Pilgrims too from the vicinity of Dacca not unfrequently take an investment of them, which they dispose of at the great annual fair held at Meena, near Mecca. They are used by the Arabs chiefly for turbans and gowns. The golden color of the muga silk gives to some of these a rich lustrous appearance. Pieces, made of native spun cotton thread, and of the best kind of muga silk, would be admired in England.—(*Dr. Taylor.*) The export trade of the Madras Presidency in madapollams and long cloths has been annihilated by the goods laid down by the British manufacturer, in all the bazars of India. The export-trade of what were denominated madapollams and punjums for the 10 years from 1815-16 to 1824-25 was as follows :—

	Bales	Pieces	Value Rs.
1815-16	11,925		37,82,859
1816-17	10,243		33,53,243
1817-18	9,905		32,78,330
1818-19	7,715		24,00,543
1819-20	5,903		19,64.006
1820-21	5,149		16.81.551
1821-22	2,915		12.53,383
1822-23	541	53,220	409.337
1823-24	„	142,470	793.208
1824 25	„	128,400	802,600

This description of goods is not now made, and pieces of punjum are only interesting as specimens of that important manufacture which formerly was to be found in bales in the bazar and in the Custom House for shipment. The same causes which have contributed to so great a falling off in the cotton manufacture of the Madras Presidency, produce a like change upon the yarns spun by hand, and the change may be perceived by referring to the quantities of cotton twist imported from the United Kingdom in the years from 1826 to 1830, compared with the 10 years, 1844 to 1853-4.

1826-27	13,296	1829-30	49,1 10
1827-28	17,573	1830-31	10,5 49
1828-29	96,517		
		Total	187,645

1844-45	1,178.048	1850-51	786,544
1845-46	755.464	1851-52	10,62,223
1846 47	953 477	1852-53	10,16.730
1847-48	517,067	1853-54	11,05,181
1848-49	375,250		
1849-50	673,387	Total	84,23.944

It is, however, worthy of remark that even the skill and capital of Great Britain has not been able to compete in a certain class of fabrics with the manufactures of the Madras Presidency in the home market, or even to exclude them from the foreign. This does not arise from any distaste upon the part of natives to wear articles of European manufacture, but consequent upon Europe not being able to supply a white or dyed article, usually worn by natives, as cheap as it can be manufactured in the country; proving that there are bounds even to the power loom, and that fabrics coarse in quality can still be made by the hand at a profit. for, after a fair trial, the weavers of Europe have given up competition in this description (Native Cloths) of fabrics finding their exportation to India not remunerative.

It is generally supposed that the power looms of Britain have destroyed the export trade of Madras, but the annexed table demonstrates that such is not really the case, for though a certain description of goods have ceased to be exported. yet on the whole there is no very extraordinary difference in value between the export of Cotton Piece Goods, in what were considered the palmy days of the Export Trade, compared with those of the last ten years.

1844-45	3,841.982	1849-50	3,097,558
1845-46	3,926,438	1850-51	2.942,874
1846-47	4,286,921	1851-52	2,908,934
1847-48	3.736,055	1852-53	3,521,516
1848-49	2,843,425	1853 54	3,141,024

The cotton twist imported from the United Kingdom may in round numbers be taken at 400 bales per annum, each bale will make about 3000 yards of the native cloths usually worn, which would give 12,000,000 (twelve million) yards annually manufactured, irrespective of goods made by yarn spun by the hand. The amount thus given is an estimate that approximates to the truth with sufficient accuracy to exhibit the great extent to which handloom weaving is still carried on in this Presidency. In Ganjam is fabricated a cotton cloth, each side of a different color. This effect is produced not by dyeing the cloth after it is woven, but by a dexterous manner of throwing the woof across the warp on either side. Madapollum and Ingeram used to be famous for cotton cloths, but since the abolition of the Company's trade, the finer punjums have not been made. Palumpores, as bed coverings, of the former place deserve attention. Very fine muslins are made at Oopada, North of Coconada, and handsome turbands, with gold thread interwoven—but all these things are far surpassed by the Bengal fabrics. The Chicacole Muslins are however prized by ladies. Cotton cloths from Nellore consist of manufactured articles which find a ready sale in the markets of this Presidency. —*Madras Exhibition Juries Reports*, 1855, 1857. *Dr. Taylor of Dacca, in Reports of Great London Exhibition of* 1851. *Calcutta Catalogue of London Exhibition of* 1862: *Report of Juries of Exhibition of* 1862. *Dr. Royle Arts of India; Dr. Royle Productive Resources of India.*

COTTON-GRASS. Eriophorum cannabinum. Its seeds are clothed at their base with a silky or cotton like substance with which pillows are stuffed and wicks of candles, as well paper made. Its name is bhabhur and bha bhuree, and it is made into ropes by the Hindoos. "The wind trees of that country bear fleeces as their fruit, surpassing those of sheep in beauty excellence; and the Indians use cloth made from those trees."

COTTON PLANT. Gossypium Indicum, *Lam.*

COTTON ROPES are in general used in India, especially for tents. They are strong, but liable to stretch.

COTTON SEEDS.

Cappasia, GUZ. HIND. | Patti-vittulu TEL,
Punji verai TAM. |

Are chiefly used in India for feeding cattle, and also sometimes as manure for cotton plants.

COTTON SEED OIL. An oil is expressed from cotton seeds which is used for burning in lamps, and is also considered to have, in a peculiar manner, the virtue. when externally applied, of clearing the skin of spots and freckles.— *Faulkner.*

COTTON, SILK. The silk cotton trees belong to the natural family of Byttneriaceæ, and genera of Bombax. The species of Bombax are remarkable for their gigantic stature and their splendid inflorescence, also on account of their capsules which on bursting, display a flocculent cotton-like substance, and the tree is hence called cotton tree. But this substance being more silky than cotton, it has been named silk cotton. It differs also in not spinning like cotton. Some ton manufacture of British India, in spite of its supply of the raw material growing often close to its door, in spite of labour absurdly cheap, may truly be said to have ceased in favour of the far off industry of Lancashire and Scotland. The actual result of this revolution of half a century has been that, in place of Britain importing cotton goods and yarns from the East to the yearly value of about 800,000*l.*, that country is able, in the present day, to ship to the various ports of India cotton fabrics to the value of upwards of three millions sterling. The decay of this branch of British Indian exports has been steady and continuous. In 1827-8, Bengal shipped but to the value of 275,000*l.* ; in 1837-8, not more than 69,000*l.* ; and at the present moment our supplies from the East are limited to about five thousand bales from Madras, solely for re-shipment to our western colonies, and various parts of northern and western Africa. Dacca was the seat of manufacture of the muslins known by that name, and spoken of by the ancients as " woven webs of hair." The most delicately worked and highly ornamented scarfs and dresses are wrought at Delhi, Benares, and Ahmedabad. Haripaul and Santipore ; whilst the more substantial and useful fabrics were wrought chiefly at Patna, Luckpore, Lucknow, Balasore, Masulipatam, Cuddalore, and Surat.—*Royle, Arts of India.* Of the arts practised at Dacca, the first that claims attention is the Cotton Manufacture. In a commercial point of view, this is no longer the important branch of industry that it formerly was ; but, regarded as an art which furnishes exquisite specimens of textile fabrics, it is still unrivalled. The implement used in spinning and weaving indeed is rude, but the simplicity of its construction contrasts with the delicate gossamer texture of the fabrics made by means of it, and shews that the skill displayed in this manufacture is less the result of artistic ingenuity or complicated mechanical appliances than of that dexterous use of the hand and foot, and delicacy of touch which are possessed, in so remarkable a degree, by the hindoo artisans of Bengal. With their rude implements the hindoos of Dacca succeed in manufacturing muslins, " to which, " as Dr. Ure observes, "European ingenuity can afford no parallel, such indeed as has led a competent judge to say, it is beyond his conception how this yarn, greatly finer than the highest number made in England, can be spun by the distaff and spindle, or woven by any machinery."—(Ure's Cotton Manufacture of Great Britain, Vol. 1, p. 54.) There is the primitive instrument used for carding the fibres of the cotton, likewise the instruments employed for separating the wool from the seeds, and for bowing or teazing the former. The first is simple—the jaw-bone of the boalee fish (Silurus boalis), the teeth of which being fine, recurved and closely set, acts as a fine comb in removing minute particles of earthy and vegetable matter from the cotton. The hindoo spinner, with that inexhaustible patience that characterizes her race, sits down to the laborious task of cleaning with this instrument the fibres of each seed of cotton. Having accomplished this, she then separates the wool from the seeds by means of a small iron roller (dullun kathee) which is worked with the hands, backward and forward, on a small quantity of the cotton seeds placed upon a flat board. The cotton is next bowed with a small bow of bamboo strung with a double row of catgut, muga silk, or the fibres of the plantain tree twisted together ; and having been reduced by this instrument to a state of light downy fleece, it is made up into a small cylindrical roll (puni) which is held in the hand during the process of spinning. The spinning apparatus is contained in a small basket or tray not unlike the catheteræ of the ancient Greeks It consists of a delicate iron spindle (tukooa), having a small ball of clay attached to it, in order to give it sufficient weight in turning ; and of a piece of hard shell imbedded in a little clay on which the point of the spindle revolves during the process of spinning. With this instrument the hindoo women almost rival Arachne's fabled skill in spinning. The thread which they make with it is exquisitely fine, and doubtless it is to their delicate organization and the sensibility with which they are endowed by nature, that their inimitable skill in their art is to be ascribed. The finest thread is spun early in the morning before the rising sun dissipates the dew on the grass, for such is the tenuity of its fibre, that it would break if an attempt were made to manufacture it during a drier and warmer portion of the day. The cohesive property of the filaments of cotton is impaired by high temperature accompanied with dryness of the air, and hence, when there is no dew on the ground in the morning to indicate the presence of moisture in the atmosphere, the spinners impart the requisite degree of humidity to the cotton, by making the thread over a shallow vessel of water. Skeins of fine thread of different qualities, with a memorandum of the length, weight, and time occupied in spinning, attached to each skein should be submitted for exhibition. A specimen which Dr. Taylor examined at Dacca in 1846, measured 1,349 yards, and weighed only 22 grains, which is in the proportion of upwards of 250 miles to a pound weight of stavalue of the exports of cotton goods, cotton twist and yarn, has doubled in the twenty years, but re-exports are not distinguished.

Year.	Imports. Cotton. Twist quantity, lbs.	Yarn value. £	PieceGoods value £.	Exports. Cotton Goods including twist and yarn, both country and foreign, value,
1850—51		1,039,329	3,042 361	673,549
1851—52		1,391,134	4,770,779	819,049
1852—53	..	1,130,501	3,667,433	930,877
1853—54	29,519,238	1,306 913	4,432,525	709,345
1854—55	38,046,263	1,274,098	5,403,244	817,103
1855 56	26,894,909	1 414,274	4,948,005	779,647
1856—57	21,754,709	1,191,974	4,941,353	882,241
1857—58	17,673 68	943,940	4,776,764	809,183
1858—59	31,111,303	1,714,216	8,088,927	813,604
1589 - 60	31,477,257	2,047,115	9,651,813	763,586
1860—61	20,850,500	1,748,183	9,309,935	786,557
1861—62	..	1,472,484	8,772,916	748,345
1862 63	19,493,879	1,270,301	8,360,229	785,437
1863 - 64	19,608,137	1,529,001	10,416,662	1,167,577
1864 - 65	17,901,925	2,191,440	11,03 ,885	4,043,960
1865—66	16,892,073	1,961,144	11,849,214	1,732,133
1866 67	11 mos	2,572,700	12,524,106	1,157,863
1867—68	26,719,280	2,698,350	14,999,917	1,435,458
1868—69	29,042,052	2,779,934	16,072,551	1,339,999

COTTON MANUFACTURES. Amongst the goods which appear to have been brought to Europe from the Indian seas, in the days when Arab traders were the only medium of intercourse between the eastern and western worlds, we find mentioned cloths of silk and cotton of various colours and devices. It does not appear, however, that there existed any great demand for cotton, the consumption of the Roman people, who were then the customers for all luxuries, being chiefly confined to cloths of silk and wool. During the early trade of Europeans with India by the long seas route, the calicoes and fine muslins of that country came first into general notice; and from that date until the production of machine-made fabrics in England, they continued to rise in public estimation. It was deemed a great thing with the Lancashire manufacturers, when, by the aid of mechanical and artistic skill combined with the potent agency of steam, they found themselves able to produce an article which was considered equal to that which the unlettered hindoo had manipulated in his little mud hut on the remote banks of the Ganges, and which had been produced of like excellence by their ancestors, when the "father of history" penned his observations upon their countries. That the hindoos paid considerable attention to the details of this manufacture in the most remote ages there remains sufficient proof on record. In the Indian work of highest antiquity, the Rig Veda, believed to have been written fifteen centuries previous to our era, occurs the following passage, "Cares consume me, Satakralu, although thy worshipper as a rat gnaws a weaver's threads:" —the temptation to the rat was evidently the starch employed by the spinner to impart tenacity to the thread; nor can there be any doubt that cotton was the thread alluded to. Again, in Menu, we find it directed as follows: "Let the weaver who has received ten palas of cotton-thread, give them back increased to eleven by the rice water (starch), and the like used in weaving; he who does otherwise shall pay a fine of twelve panas." The cotton fabrics of India formed a considerable item in the exports from the East to this country during the early days of British Indian commerce; the delicacy of their fabric, the elegance of their design, and the brilliancy of their colours, rendered them as attractive to the better classes of consumers in Great Britain as are, in the present day, the shawls of Cashmere or the silks of Lyons. So much superior indeed were the productions of the Indian spinning-wheel and hand loom, to those turned out by the manufactures of Lancashire in the middle of the last century, that not only were Indian calicoes and Indian prints preferred to the home-made articles, but the Manchester and Blackburn weavers actually imported Indian yarns in large quantities for employment in their factories. It was about the year 1771-2 that the Blackburn weavers, taking advantage of the recent discoveries and improvements of Arkwright, Hargreaves and others, found themselves in a position to produce plain cotton goods, which, if they did not quite equal the fabrics of the East, at any rate found their way very rapidly into general consumption in Europe. The invention of the mule jenny, in 1779, was the commencement of a new era in the history of the cotton manufacture of Great Britain; and when, six years later, Arkwright's machines were thrown open to the public, a revolution was effected in the production of all kinds of yarns; England found herself able, not only to supply all her own wants with cotton goods of every variety of quality, but also to carry the produce of her looms ten thousand miles across the sea, and placing them at the doors of the Indian consumer, undersell the goods made by his own hands from cotton grown in his own garden. Nor is it only in the heavier goods that the West are able to beat out of their own markets the weaver of the East. There have long been masters in their craft who can and do produce fabrics more exquisitely delicate and light in texture than those beautiful muslins of Dacca, so long and justly celebrated with a world wide fame; and although in some particulars these latter fabrics still claim a certain degree of superiority, and although many of the hindoos prefer their own woven goods to those of Manchester and Glasgow, the cot-

and exceeding the ordinary American crops." The culture here is peculiar, as very liberal pruning is practised. In Trichinopoly, with a fertile soil, 83 lbs., which is the next highest, is the greatest return, which, though so much less than the above, is still more than double the average return from other districts. The cotton of Central India finds its way to Bombay. The causes which favour the growth of cotton, esteemed both in India and England, in the tract of country extending from Surat and Amedabad, or from about lat. 21° and 23°, in a broad band across Malwa to Banda and Rajakhaira, in about 25° and 27°, near the banks of the Jumna, are no doubt physical. The black cotton soil which is spread over a great portion of this tract has undoubtedly a considerabie share in producing the effect ; but good crops of cotton are produced in some parts where there is no black soil, as immediately on the banks of the Jumna and in the Doab. It will therefore probably bo found, that the comparative dryness of the climate after the plant has got well established in the ground checks the vegetative vigour, and favours the production of prolific fruit.—*Royle's Productive Resources of India.*

Dr. R. F. Thompson of Hoogly, writing in 1870, says that not less than 378,000 acres are under cultivation for cotton in Dharwar at one time. The stem of the cotton shrub, he says, yields a fibre, which can be extracted as in the manufacture of jute, and when cleaned has the appearance of a middling quality of that article. It has neither the colour nor value of fine jute, but the gunny made from it is valued at Rs. 4-8 per maund. Computing the fibre as worth one rupee per maund, he estimates the loss from throwing away the stalks, at not less than Rs 22,68,000 in Dharwar alone. After extracting the fibre, the refuse can be burned into an ash. (*Madras Times,* 13th Dec. 1870.) Cotton plants are mucilaginous, and have been used as demulcents. The seeds yield oil, which is sometimes expressed for burning in lamps. Cattle are, however, often fed on the seeds, which are also sometimes employed as manure for cotton plants. Cotton wool is largely employed. throughout the world, in the manufacture of cloths. Cotton has been long a popular application to burns. Dr. Anderson (Ed. M. and S. Journ. 1828) directs it to be applied in thin layers, one over the other and retained by the moderate pressure of a bandage. Pain is allayed, local irritation and blistering diminished or prevented, and constitutional disturbance proportionally obviated. M. Reynaud adopted its application in case of erysipelas, and M. Mayor employs it as a topical application with calomel in cases of ophthalmia. (B. and F. Med. Rev. xx. 463). Cotton, though used chiefly for clothing, is, in India, also employed to a considerable extent for cordage, as, for instance, for tent ropes, which are made entirely of cotton, as are the tents themselves. Cotton ropes are also employed for many domestic purposes. Specimens were sent to the Exhibition of 1851, both from Calcutta and Madras, and have considerable strength. Some of the native shipping, also, and even a few American ships, are rigged with cotton ropes; while cotton canvas is also employed for sails, especially on the coast of Cutch, where some very good rope is made, and which sells for about three and a half annas per yard. —*Agri. Horticultural Societies of India and of Madras. C. B. Saunders, Esq. Commr. of Mysore, Dr. Cleghorn in Rep. Brit. Association, Bonynge America, Proceedings Madras Govt. Friend of India, Cal. Review, Indian Field, Royle Fib. Plants, Royle Productive Resources of India, Annals Ind. Administration, Madras Chamber of Commerce, Dr. Shortt's Letters, Low's Sarawak, Dublin University Magazine, Elliot Supplement, Cotton Report,* 1857.

COTTON BALE.

	Weight. lbs. net.		Weight. lbs. net.
In America... ...	440	China	240
Brazil	180	Bengal	300
Egypt	500	Madras	300
Turkey	350	Bombay... ...	394

COTTON CANVAS. See Cotton.

COTTON CARPET. See Carpets.

COTTON ELE. TAM. Leaves of Cassyta filiformis.

COTTON-GATHERER.

Binahar	HIND.	Pyhura	of BUNDLECUND.
Pykar	of DOAB.	Pooreo	of DELHI.

COTTON GOODS are both imported and exported, also cotton twist and yarn. Between the years 1850-1 and 1868 9 the quantities imported of cotton twist and yarn have ranged from lbs.16,892 073 as in 1865 6, to lbs. 29 519,238 in 1853 4, and almost the same quantity in 1868-9. but the declared value has almost doubled since 1853-1854.

Year	lbs.	£.
1853-4 .	29 519,238...	1,306.913
1868-9...	29,042,052 .	2,779,934

Cotton goods have been imported to a greatly increased extent, from £364,361 in 1850-1 to £16,072,551 in 1868-9. The

“*Bourbon cotton* of Indian growth,” says Wight, “has sold in the London markets for the highest prices going,” and, as the Bourbon plant is the original Sea Island acclimatized to the East, the cultivator would have a stronger probability of success by obtaining his seed from Bourbon, than from America. Much attention should also be given to the selection of a proper soil. Analysis has shown that all the lands on which cotton is grown in India, differ widely in their constituent parts from the best cotton land of America. The subject is still in its infancy, more extensive analysis being required; “but it seems at present,” observes Mr Piddington, “that the abundance and fineness of good cotton depend on the quantity of carbon in the soil, and the solubility of that carbon. If, therefore, you can obtain a soil approaching the American soils, that is, containing peaty matter, lignite, and colouring cold water, this will no doubt be the best; because it contains carbon, and probably hydrogen combined with it, suitable for the food of the plant. And the next best soil is one containing carbonate of lime” The varieties are Gossypium barbadense. Var. (*a*) Barbadoes, or Bourbon cotton. (*b*) Sea Island, or long stapled (*c*) Upland Georgia, or short stapled.

The Karens usually grow cotton enough to make their own fabrics, and on the Salwen and Tenasserim, it is sometimes raised in considerable quantities; but its market price is little more than a fourth of the best American cotton; yet with improved modes of culture, and frequent changes of seed, its value would undoubtedly be greatly increased. —*Mason.*

Bombay Presidency.—The Bombay Presidency has long exported large quantities of cotton both to Europe and China. The best cotton districts are the southern Mahratta country, about 16° N. lat., where the experimental farms were established. Guzerat and Katywar are districts where superior cottons are grown by the natives, in consequence of which, these were selected as the sites of the northern experimental farms, and much favourable land for the purpose is found between the latitudes of 21° and 24° North. This part of the country was the site of the experiment of Assistant Surgeon Gilders in 1816-17 who, having observed the causes which led to the failure in the attempt to introduce the cultivation of Bourbon cotton into the western districts, considered the obstacles to have been exclusively of a physical nature. He at the same time stated, that both the soil and climate of the districts lying between the Subermuttee and the Myhee promised a favourable result. The cotton grown, and that time, by Mr. Gilders was considered at Bombay fully equal to any produced in Bourbon, and, in London, as the best specimen that had been imported from Bombay raised from Bourbon seed. It sold for 15*d.* per lb. With so much sagacity had Mr. Gilders selected the site of his experiments, that fifteen years afterwards Dr. Burns collected seed from trees growing apparently wild. These being sown, produced plants of which the cotton was pronounced equal to the best from New Orleans. The cotton grown at Laberkowa, within two miles of Mongrole, though confined to a space of 200 beegahs, or thereabouts, was so highly valued, that on the spot it would fetch six-sevenths of a rupee per maund more than any other kind in that part of the country; yet the natives say they frequently used seed from Guzerat, or any part of the country. The superiority must, therefore, depend either upon peculiarity of soil and climate or excellency of culture. One point only of the latter is related, but that is one of great consequence. For instance, the people are in the habit of carefully extracting the cotton alone from the pod in the field; and this is, probably, of considerable importance, as some of the American planters are of opinion, that the staple of Indian cotton is much injured after it is collected by being allowed to heat when piled up, often for a long time before it is cleaned.

Madras Presidency.—As early as 1790, Dr. Anderson was employed in sending Mauritius cotton seeds, as well as “Brown Cotton Seeds,” imported from Malta, to diffrent parts of the peninsula; and Dr. Roxburgh, who left Samulcotta in the Northern Circars and took charge of the Calcutta Botanic Garden in 1793, had already ascertained that the elevated, dry, and less fertile soil of Coromandel was better suited than that of Bengal to the Bourbon cotton. He obtained them from Mr. Hughes, who had for some time been engaged in the culture of cotton in the Tinnevelly district, and whose success was so considerable with Bourbon cotton, that for twenty years “Hughes' Tinnevelly Cotton” continued to be quoted in the Liverpool market as the best from India, and sold at higher prices than the American sort staple cottons, and 3d. per lb. above the best Surats. The fact is important, on account of the latitude of Tinnevelly being only 8½°, and because the success was evidently the result of skill applied to the culture. The produce, only 100 lbs. per acre, was fine in quality and much esteemed. It would also seem that in Vizagapatam, about North latitude 17°, the return is much greater than in any other district, as the produce is said to amount to “forty-six maunds, or 115 lbs., of seed cotton per acre, nearly equal to the best, Provinces the cotton crop is invariably irrigated where a want of rain is found to be likely to prove detrimental to the plant, and the process is not supposed to be in any way injurious to the fibre.

In most parts of the Madras Presidency artificial irrigation is not carried on ; this remark applies more particularly to Coimbatore, Madura, South Arcot, Bellary, Western Mysore, and Nellore. In Vizagapatam, on the other hand, the opinion is, that irrigation would prove beneficial rather than injurious in seasons when rains fail or vary in their supply.

Artificial irrigation is almost unknown in the Bombay Presidency ; the Collectors of Sholapore, Ahmednuggur, Belgaum, and Kaira, consider it injurious. The Collector of Ahmedabad thinks that occasional floodings at seasonable periods during the growth of the crop would be beneficial ; and the Collector of Dharwar adds, that it has been determined by experiment that cotton can, by judicious management, be irrigated with success both in black and other soils. Mr. Inverarity, Collector of Broach, was decidedly of opinion that artificial irrigation is not only injurious to the growth of the cotton plant in that collectorate, but tended to weaken the wool. The succeeding collector, (Mr. Tucker) who had never heard of irrigation of indigenous kinds of cotton in black soil, of which the district of Broach is principally composed, states that it has proved successful with exotic varieties, and that if it were tried with the former species the prejudice might prove to be unfounded.

In both North and South Berar artificial irrigation is unknown.

The same remark applies generally to the Tenasserim and Martaban Provinces, Rangoon, Bassein and Pegu.

In some parts of the Punjab, cotton is generally irrigated from wells, and this has never been considered injurious; well water is considered better for the purpose than river or canal water. In other parts, more especially in the Jullundur Doab, the best cotton is produced upon unirrigated lands, irrigation being very sparingly resorted to in tracts where water is abundant."

From the perusal of this summary, it appears that artificial irrigation to cotton is rather the exception than the rule in most parts of India; that it proves more serviceable to exotic than to indigenous kinds: that in heavy black soil cotton will seldom flourish under irrigation, even of the most careful kind, while in sandy and light red sorts it might be much benefited.

The Cotton Planter's Manual mentions that *salt marsh mud* is used for manure in various parts of the cotton growing districts of the United States, more especially in Eddesto Island, one of the largest of the South Carolina Group, about 30 miles south-west of Charleston, which yields the finest cotton in the world. As much as 40 cart-loads of this mud is used to the acre. Some compost it, others put it in the cattle pens. Some dry it before hauling, and then spread upon the land ; while others prefer to use it as soon as dug, spread upon the land wet, and ploughed in. It is supposed that the Sea-Island qualities owe their superiority to the use of marsh mud, which is rich in alkalies and alkaline earths.

Tenasserim Province.—Mr. Blundell introduced the Pernambuco cotton plant, Gossypium acuminatum, which produces the Pernambuco, Peruvian, Bahia, or South Sea Island cotton ; and Capt. Macfarquhar raised such a fine article at Tavoy from it, that the committee of the Agricultural and Horticultural Society of Calcutta were unwilling to believe it the production of that species. They reported that "the sample sent by Capt. Macfarquhar appears to be of a quality resembling the Sea Island, but finer and more silky, and the fibre not so strong, its value is not so easy to determine, but the Committee are of opinion that it would sell for a high price. The Pernambuco cotton, which, it is believed, is the same as the South Sea Island cotton is an inferior staple to that of the North American Sea Island, and they have a sample of cotton submitted which in point of fineness surpasses the genuine Sea Island cotton of North America. This improvement on the general staple of Pernambuco cotton might be reconciled, had it been produced at a distance from the sea, since it has been ascertained, that this description of cotton deteriorates by proximity to the sea; whence your Committee are disposed to think that Capt. Macfarquhar has been led into error in calling it South Sea Island instead of Sea Island." Admitting that Captain Macfarquhar was in error, which it is believed he was not, the report proves that an article "finer and more silky" than the best American cotton, has been raised in the Tenasserim Provinces. The principal difficulty to the introduction of this species into general cultivation was, as Mr. Blundell told Dr. Mason, that the trees did not produce abundantly.—*Mason.*

Sea Island Cotton. Sea Island cotton has been raised in the Tenasserim Provinces by amateur cultivators, but Mr. Mason had never seen any report on the article obtained.

as the ashes make the best manure for cotton and burning the soil improves its quality. Salt and lime are also good additions to a soil—as cotton requires chiefly alkalies and silicates for its nourishment. Both animal and vegetable manures are injurious, as they breed insects which destroy the roots, leaves, and young pods of the cotton.

Sowing the seed.—After the land has been well and deeply ploughed, it should be left for three or four days to get well aired, it may again be ploughed into long ridges four to five feet apart. The seed is to be planted on the tops of these ridges carefully, at the depth of an inch or two, and at the distance of five feet between each seed for Oopum, Nankin or Religious cotton ; six to seven feet apart for Bourbon, New Orleans or Havannah ; ten feet apart for Sea Island, Peruvian, Egyptian or Queensland—and fifteen feet apart for Brazil or Pernambuco cotton. Cotton seed may be sown in any month of the year, and if there is no rain, it requires to be watered about three times ; it germinates about the fifth day. If sown during the monsoon, the ridges must be eight inches high and the water must be led away from the young plants or they rot, the seed must be sown on the top of the ridges. If the leaves begin to get pale or to shrivel up, the remedy is to dig trenches between the plants so as to let air in about the roots, but do not injure them.

Treatment of the young plants.—When left without cultivation, the cotton plant lives for three or four years, but it becomes dwarfed and produces smaller leaves and smaller pods each year till it dies. In clay or cotton soils the plants do not attain nearly the size, nor do they produce such fine leaves or pods as on sandy or loose soils. The cotton plants require sun, air, and moisture, but not so much of the last as of sun, light and air at the roots, the lighter and looser the soil the more healthy is the plant. The best soil for cotton is a sandy soil with iron and salt, or if far from the sea, ashes of plants or of fire wood may be used as a substitute for salt. When the cotton plants have attained the height of a foot they do not require to be much watered once in ten days will be sufficient.

Height of the trees and their relative size. Oopum or the common country cotton varies from one to six feet in height, and covers from two to five feet of ground ; on cotton soils it seldom grows to more than two feet in height. Most of the other varieties of cotton grow to a height of six or seven feet. The Pernambuco and Brazil cottons attain a height of thirty feet on favorable loose soils, and the stem grows to ten inches in diameter ;—they yield crops for twelve or fourteen years, but hardly any produce the first year. They bend over in the second year, and do not afterwards stand higher than eight or nine feet.

Relative produce.—In India some of the cotton soils yield only 30lbs. of Oopum cotton per acre including seed and cotton. In sandy soils near the sea this cotton has been known to produce 260lbs. of seed and cotton per acre. In America, the produce per acre is estimated good at 230lbs. of clean cotton per acre, the proportion of seed is about four times the weight of cotton—but this depends upon the amount of labour bestowed on the soil. Garden culture of small tracts of land is thought to pay much better than large half tilled acres of waste land. Cotton ought to yield two crops in a year, the first within the four or five months after the seed is put in. If weeds or other plants grow up along with cotton they spoil and choke it, besides breeding insects about it which destroy the young pods.

In the Travancore Cotton Experiments, by His Highness Rama Vurmah, 1st Prince of Travancore in 1863, the seed of Pernambuco cotton was sown in the end of July, and in August, when the plants had four or five leaves on them, they were transplanted into pits a foot and a quarter in depth, three feet in diameter and fifteen feet apart. The pits were filled with red soil and a little manure, and the plants were occasionally watered—and weeds and sear leaves removed. The first flowers appeared in November, but most of these fell off. The first leaves were large and healthy, the second wrinkled and contracted, and the roots of the plants infested by ants. The application of a mixture of ashes, salt, and quicklime removed the ants. The picking commenced in January 1864 ; each plant produced on an average 35 pods. The leaf cases of many of the young fruits gave shelter to little spiders, and this is perhaps one of the reasons why some of the pods perished.

The specimens of cotton forwarded were very clean, long in the staple, of good colour, but coarser than Bourbon or Sea Island. The seeds large, full, black, and connected as in the Brazil and Pernambuco varieties ; cotton easily separated from the seed.

In Assam, *irrigation* is considered generally unnecessary; though it may be found partially beneficial in dry and sandy soils if judiciously applied. *Irrigation* is not resorted to in the Benares, Allahabad, and Jubbulpore Divisions, and the feeling is against its employment.

In some other parts of the North-Western ton, but of the two the first is by far the worst. Cotton may and in some instances does live through a flood, and yield an abundant crop, but drought, excepting in some peculiar localities and species, destroys it out-right : while therefore, due care is taken that the soil shall be capable of retaining a great amount of moisture, it is as well, in such soils as are liable to become too moist, by judicious drainage to guard against excessive damp at the roots of the plant. These are subjects to which the native agriculturist pays not the slightest attention, and it is chiefly from such causes that we find the yield of an acre of indigenous cotton but seldom exceeding 500 lbs, the general average being half that amount, while the return from the same quantity of land in America is seldom if ever below 700 lbs, and reaches to double that quantity in some favored situations and peculiarly productive soils. In the cultivation of cotton in America, Mr. Spalding considers that a rotation of crops is essential, or rather that an intermediate crop of grain should be reaped, and all root crops be avoided.

For the cultivation of cotton, the ground is well ploughed and cast into ridges, which are about 10 inches in height, but vary in being from 5 to 6 or 7 feet apart, according to the richness of the soil or the kind of cotton to be cultivated. In poorer soils the ridges are narrower, so that the plants which do not grow so large may yet be able to cover the ground. The ridges allow superfluous moisture to be carried off by the water furrow, which in low situations is made into a trench. The soil is allowed to settle for a few days before sowing, as the young plants take root more vigorously than when they spring up in freshly ploughed and loose earth. Sometimes the ground is manured by running a deep furrow early in the spring between the old rows of cotton stalks, which are beaten down into it by women and children, who follow the ploughman ; or well rotted cotton seed is added as manure, and well covered up by forming a slight ridge over it. When the ground is quite prepared, a one hole drill makes a slight furrow, from 1½ to 2 inches deep, along the centre of the ridge. The sower follows and drops in the seeds pretty thickly. These are immediately covered by a light harrow, which also smooths the ridge. Sometimes five or six seeds are dropped into holes which are made at intervals of about 15 inches on the top of the ridge. In favorable weather the plants make their appearance in five or six days, and are thinned out as soon as they put forth the third or fourth leaf. This operation is performed by scraping out with the hoe all the superfluous plants and weeds, leaving three or four together, with spaces of 12 or 14 inches between them. When the plants are sufficiently established, they are reduced to a single one, and care is taken to remove every particle of grass or weed. A light furrow is then run with a one horse plough within five or six inches of the plants, turning the earth inwards towards the roots, and even drawing it around them with the hoe in order to supply the place of that previously removed by scraping. Hoeing and ploughing are frequently repeated, so as to keep the ground free from weeds, and this is considered essential towards obtaining a good crop. The above processes, besides loosening the soil and keeping it clean, must assist in drying it, at the same that they prevent much lateral extension of the roots.

Lopping or pinching off an inch or two of the top of the plant is not always necessary, but is useful when there is a tendency to the production of wood and leaves, to the detriment of flowers and buds.

India cultivation. In the cultivation of cotton by the natives of India, the old stocks are pulled up in March, and the land ploughed, 10 bullocks pull one plough, sometimes eight, never less, sometimes old rotten cow-dung is put in the land as manure, generally not so. By the end of May the ground is harrowed by a harrow and a pair of bullocks. After rain has fallen once or twice (about the last week in June) the seed is put in either by a machine with three teeth which scratches the ground and lets the seed fall into the furrow, or else sown broadcast, the seed being mixed with earth to keep the grains separate ; it is weeded about four times. The seed is not soaked in water before sowing. The tops of the plants are not cut off.—(*Cal. Rev No.* 73. *Sept.* 1861. *p.* 105)

Chingleput Cotton Cultivation. Dr. J. Shortt engaged in the experimental culture of cotton in Chingleput, for three or four years, and with good success. The samples grown by him gained the gold medal awarded by the Manchester Cotton Supply Association, and the details of the experiments, the prize of Rs. 1000, and the gold medal of the Agri-Horticultural Society of India, also the medal of the London Exhibition. The varieties of cotton that seem to succeed without irrigation at Chingleput, are Bourbon, New Orleans and Brazil, and these continue to flower and fruit crop after crop. The Bourbon in particular, continues to produce throughout the year. (*Suggestions for the cultivation of Cotton.*)

Preparing the land.—This should be well ploughed two or three times, and the deeper the better. All the weeds should be collected into heaps on the ploughed land and burnt, is spun into thread, as the spinners there prefer it of such cotton to the generality of that imported from foreign countries. Of this, the cotton imported from Nagpore was held in the highest estimation, and considered nearly equal to that from Surat, though that grown near Benares is described as being very little inferior to it.

Doab and Bundlecund Cotton.—Dr. Royle, in proceeding down the Jumna in January 1832, observed that the cotton plants on its banks, especially below Agra, though smaller, were very prolific bearers, the bolls were larger, and the cotton better than he had seen either higher up or lower down the river. Subsequently, he was informed that the best cotton was then grown in Bundlecund, in the neighbourhood of Jalown, not far inland from Calpee; that the next was that of Raja Khera, below Agra. Good cotton is produced all along the banks of the Jumna, as far north as 30°. Mr. Vincent, of Nudjuffghur, stated that in the tract of country lying to the north of Allahabad, "the produce of a begah (one-third of an acre) is, on an average, about a maund of cotton, and two maunds of seed, which is as readily sold as the cotton itself, being an excellent food for cattle."

Central India Cotton. The cotton of the interior or Central India, whether we consider the opinion of the native manufacturers on the Madras coast, or those of Benares or Bengal, or the exporters at Bombay, has always been highly esteemed. It was bought also at Dacca, and they paid 19 Rupees a maund for the cotton of Siyonje in Malwa at the time that their own cotton was selling for about six Rupees, which was about the same price, as the former was cleaned and the latter uncleaned cotton. The soil of Central India is peculiar, consisting in many places of the black cotton soil; the climate also differs from that of the lower provinces. It is more than probable, therefore, that the causes are physical and may be discovered, which will account for the superiority as well as the facility of culture of cotton in these districts. In such a case, the Delhi Canal affords great facilities and eligible situations. Colonel Colvin introduced the culture of the Upland Georgia cotton into upwards of one hundred villages along its banks.

Bengal. The Garrow, Tipperah, and Chittagong Hills produce a large quantity of inferior cotton, called Bhoga. It is the principal article of traffic, which the hill people bring down to the plains. The quantity annually sold or bartered by the Garrow tribe is estimated at 50,000 maunds; that by the Tipperah Kuki at 1,00,000; and that by the Chittagong people at 50,000 maunds, making a total quantity equal to twelve millions of pounds (15 millions, vide Mr. Taylor's letter, 20th November 1819.) It is used in the manufacture of the inferior kinds of hummum, bafta, boonee saree, jore, &c., also for making ropes and tapes, and the coarsest of all fabrics, viz. garha and guzeeh, which are commonly used for packing other cloths, and for covering dead bodies, for which purpose a large quantity of them is consumed annually both by hindoos and mahomedans. This branch of industry had not, in 1850, been touched by the rivalry of British manufactures, the thread of which these fabrics are made being far below the lowest number of English yarn imported into Bengal. A piece of Guzeeh cloth, measuring 10 yards, can be purchased for 12 annas (18 pence), which is the one hundred and twenty-fifth part of the price paid for a piece of mulmul-i-khas of the same dimensions.—(*Dr. Taylor.*)

Experiments, the result of these, in Dharwar, was some satisfaction for the money spent in experiments. Mr. Shaw set the natives agoing in the right way in 1842. He left the country in 1847, and the work went on of itself and increased, and the New Orleans cotton sent from Bombay, is known in Liverpool by the name of 'saw ginned Dharwars,' the price on one day was 9d. per lb., while the native cotton grown in the same part of the country was only worth 6½d. to 7d.

It would seem, from all inquiries, that Native cotton, though tolerably remunerative to the merchant, is not so to the ryot, and its cultivation is consequently limited. Further that exotic and superior cotton can be grown with equal ease and afford a much higher profit to the ryot, but the competition among the mercantile community has not been such as to lead to a demand, and the native is therefore in want of a stimulus.

The coast districts within a few miles of the sea are likely to prove profitable cotton lands for the growth of a superior staple.

Experiments have been tried on rather a large scale to introduce cotton from all parts of the world, these have been so far successful that 15 varieties of cotton have been introduced, and found to thrive and improve with cultivation, but the ordinary modes followed by the natives do not, ordinarily, prove remunerative.

Cultivation in America. It is at all times necessary, in deciding on the nature of the soils to be employed for the production of cotton, to consider their suitableness in connection with climate as regards, not only temperature, but humidity. Insufficiency and overabundance of moisture are both inimical to the luxuriant growth of cot-year's crop. Early in the fine autumnal mornings, the roads leading into Shanghae are crowded with bands of labourers from the cotton farms, each with his bamboo across his shoulders and a large sack of cotton swung from each end. With these they hurry into the town, for the purpose of disposing of them to the merchants, who have numerous warehouses from which they send the cotton to the other provinces of the empire. These labourers or small farmers, for many of them bring their own produce to market themselves, are very independent in their dealings. Having reached the first warehouse, the cotton is exposed to the view of the merchant, who is asked what price he intends to give for that particular quality, and should the sum offered be below the owner's expectations, he immediately shoulders his load and walks away to another merchant. At this season it is almost impossible to get along the streets near the sides of the river where the cotton ware-houses are, owing to the large quantities of this commodity which are daily brought in from the country. It is bought up by the large cotton merchants, who empty it out in their warehouses, and then repack it in a neat and compact manner before it is conveyed on board the junks. Before the cotton is converted into thread for the purpose of weaving, it is cleaned and freed from knots by the well known process common in British possessions in India. This is done by an elastic bow, the string of which being passed under a portion of the cotton placed on a table, throws it in the air by the vibration which is kept up by the workman, and separates the fibre without at all breaking or injuring it. At the same time the wind caused by the sudden vibrations carries off the dust and other impurities. After this process the Chinese cotton is particularly pure and soft, and is considered by good judges not to be surpassed by any in the world. It is much superior to that imported into China from India, and always commands a higher price in the Chinese market. When the last crops are gathered from the cotton fields, the stalks are carried home for fuel. Thus, every part of the crop is turned to account : the cotton itself clothes them, and affords them the means of supplying themselves with all the necessaries of life, the stalks boil their frugal meals, and the ashes even—the remains of all—are strewed over their fields for the purposes of manure. But, even before this takes place, the system already noticed, of sowing and planting fresh crops before the removal of those which occupy the land—is already in progress. Clover, beans, and other vegetables, are frequently above ground in the cotton fields before the stalks of the latter are removed. Thus, the Chinese in the northern provinces lengthen by every means in their power the period of growth and gain as much as they possibly can from the fertility of their land. The reader must bear in mind, however, that the soil of this district is a rich deep loam, which is capable of yielding many crops in succession without the aid of a particle of manure. Nature has showered her bounties on the inhabitants of this part of the Chinese empire with no sparing hand ; the soil is not only the most fertile in China, but the climate is capable of rearing and bringing to perfection many of the productions of the tropics, as well as the whole of those found in all the temperate regions of the globe.—(*Fortune's Wanderings, from page 264 to p. 273.*) The annual importation of cotton into China, has always been very considerable. In 1842, there were 650,000 peculs delivered ; and in 1843 there were 817,668 peculs, of which 578,775 were Bombay, 89,201 Bengal, 141,860 Madras, and 8,832 American. The average is about 750,000 peculs of all kinds at $7,125,000. The Bombay and Madras cotton trade increased of late years, and that of Bengal decreased ; the imports of American are likely to increase. The importation of raw cotton into China is, however, on the whole, not likely to increase much under the new tarif ; for the cheapness of the manufactured goods will lead the Chinese to take them, instead of working up the raw material. Cotton is always quoted in taels and mace in China Prices Current. —(*Morrison*)

Bengal Presidency.—The muslins of Dacca, so long celebrated, have always been manufactured from a cotton grown to the eastward and south-east of the city of Dacca, and a few miles inland from the banks of the Burrampooter ; the plant was figured by Dr. Roxburgh in vol. 3, t. 269, of his Coromandel Plants. It has often been doubted whether the superiority of the Dacca manufacture was dependent on the skill of the workmen or the goodness of the cotton ; but from Mr. Lamb's account, it appears to be carefully cultivated. It will probably be found that both have some influence, and it is certain that the workmen prefer the Dacca cotton, because, as Mr. Webb long ago explained, its thread does not swell in bleaching, as is the case with the cotton grown in North Western and Central India. (Vide Reports of East-India Company on Cotton, p. 350.)

North West India Cotton.—Of the cotton which is grown further north, Mr. Duncan, as early as 1789, relates, that the greatest part produced in Benares (N. lat. 25°)

of May, the land having been prepared in the manner just described, the cotton seeds are carried in baskets to the fields, and the sowing commences. They are generally sown broad-cast, that is, scattered irregularly over the surface of the ground, and then the labourers go over the whole surface with their feet and tread them carefully in. This not only embeds the seeds, but also acts like a roller to break and pulverise the soil. Germination soon commences, the seeds rooting first in the manure which had been scattered over the surface of the land. In some cases the seed, instead of being sown broadcast, is sown in drills or patches, but this mode is less common than the other. The rains, which always fall copiously at the change of the monsoon which takes place at this season of the year, warm and moisten the earth, and the seeds swell, and vegetation progresses with wonderful rapidity. Many of the operations in Chinese agriculture are regulated by the change of the monsoon. The farmer knows from experience, that, when the winds, which have been blowing from the north and east for the last seven months, change to the south and west, the atmosphere will be highly charged with electric fluid, and the clouds will daily rain and refresh his crops. The cotton fields are carefully tended during the summer months. The plants are thinned where they have been sown too thickly, the earth is loosened amongst the roots, and the ground hoed and kept free from weeds. If the season be favourable, immense crops are obtained owing to the fertility of the soil, but if the weather happen to be unusually dry from June to August, the crop receives a check which it never entirely recovers, even although the ground after that period should be moistened by frequent showers. The year 1845 was a season of this kind, and the crop was a very deficient one, compared with that of 1844. The spring was highly favourable, and the plants looked well up to the month of June, when the dry weather set in, and gave them a check from which they never recovered. Abundance of rain fell later in the season, but it was then too late, and only caused the plants to grow tall and run to leaf, without producing those secretions which ultimately go to the formation of flowers and seed. The cotton plant produces its flowers in succession from August to the end of October, but sometimes, when the autumn is mild, blooms are produced even up to November, when the cold nights generally nip the buds, and prevent them from forming seed. In the autumn of 1844 this happened on the night of the 28th of October, when the thermometer sunk to the freezing point, and ice was found on the sides of the canals and ponds. As the pods are bursting every day, it is necessary to have them gathered with great regularity, otherwise they fall upon the ground and the cotton gets dirty, which of course reduces its value in the market. Little bands of Chinese are now seen in the afternoon in every field, gathering the ripe cotton and carrying it home to the houses of the farmers. As the farms are generally small, they are worked almost entirely by the farmer and his family, consisting sometimes of three or even four generations, including the old grey-haired grandfather or great grandfather, who has seen the crops of four-score years gathered into his barns. Every member of these family groups has a certain degree of interest in his employment; the harvest is their own, and the more productive it is, the greater number of comforts they will be able to afford. Of course, there are many cotton farms of larger size, where labourers are employed in addition to the farmer's family, but by far the greater number are small and worked in the way we have just described. It is no unusual sight to see the family goats, too, doing their share of the work. Several of these animals are kept on almost every farm, where they are, of course, great favourites with the children, and often follow them to the cotton fields. Although the children with their little hands can gather the cotton as well as their elders, they are not strong enough to carry it about with them, and it is amusing to see their favourites the goats, with bags slung across their backs, receiving the deposits of cotton and bearing it home to the houses, evidently aware that they too are working for the general good. However fine the crop may be, the Chinese are never sure of it until it is actually gathered in; much depends upon a dry autumn, for, if the weather is wet after the pods begin to burst, they drop amongst the muddy soil, and are consequently much injured, if not completely destroyed. When the cotton reaches the farm yard, it is daily spread out on hurdles raised about four feet from the ground and fully exposed to the sun. As the object is to get rid of all the moisture, it is of course only put out in fine weather, and is always taken into the house or barn in the evening. When perfectly dry, the process of separating it from the seeds commences. This is done by the well known wheel with two rollers, which when turned round draws or sucks in the cotton, and rejects the seeds. It is a simple and beautiful contrivance, and answers well the end for which it is designed. The cotton is now sent to market, and a portion of the seeds are reserved for the next tions of peaty matter contained in them.—*Capper's Three Presidencies, page* 26.

China Cottons.—The *yellow Cotton* from which the beautiful Nankin cloth is manufactured is called Tze-mie-wha, by the Chinese. Although the yellow variety has a more stunted habit than the other, it has no characters which constitute a distinct species. It is merely an accidental variety, and although its seeds may generally produce the same kind, they doubtless frequently yield the white variety, and vice versa. Hence, specimens of the yellow cotton are frequently found growing amongst the white in the immediate vicinity of Shanghae; and again a few miles northward, in fields near the city of Poushan on the banks of the Yang-tse-kiang, where the yellow cotton abounds. Mr. Fortune often gathered specimens of the white variety. *Nankin Cotton* is chiefly cultivated in the level ground around Shanghae, where it forms the staple summer production of the country. This district, which is part of the great plain of the Yang-tze-kiang, although flat, is yet several feet above the level of the water in the rivers and canals, and is consequently much better fitted for cotton cultivation than those flat rice districts in various parts of the country,—such for example as the plain of Ningpo, where the ground is either wet and marshy, or liable at times to be completely overflowed. Some fields in the Shanghae district are, however, low and marshy, and these are cultivated with rice instead of cotton, and regularly flooded by the water wheel during the period of growth. Although the cotton land is generally flat, so much so, indeed, that no hills can be seen from the tops of the houses in the city of Shanghae, it has nevertheless a pleasing and undulating appearance, and taken as a whole it is perhaps the most fertile agricultural district in the world. The soil is a strong rich loam capable of yielding immense crops year after year, although it receives but a small portion of manure. The manure applied to the cotton lands of the Chinese is doubtless peculiarly well fitted for this kind of crop. It is obtained from the canals, ponds, and ditches which intersect the country in every direction, and consists of mud which has been formed partly by the decay of long grass, reeds, and succulent water plants, and partly by the surface soil which has been washed down from the higher ground by the heavy rains. Every agricultural operation in China seems to be done with the greatest regularity at certain stated times, which experience have proved the best, and in nothing is this more apparent than in the manuring of the cotton lands. Early in April the agricultural labourers, all over the country, are seen busily employed in cleaning these ponds and ditches. The water is, first of all, partly drawn off, and then the mud is thrown upon the adjoining land to dry, where it remains for a few days until all the superfluous water is drained out of it, and is then conveyed away and spread over the cotton fields. Previous to this the land has been prepared for its reception, having been either ploughed up with the small buffalo plough in common use in the country, and then broken and pulverised by the three-pronged hoe, or in those instances where the farms are small and cannot boast of a buffalo and plough, it is loosened and broken up entirely by manual labour. When the mud is first spread over the land, it is, of course, hard or cloggy, but the first showers soon mix it with the surface soil, and the whole becomes pulverised, and it is then ready for the reception of the cotton seed. Road scrapings and burnt rubbish are saved up with care, and used for the same purpose and in the same manner. A considerable portion of the cotton lands either lie fallow during the winter months, or are planted with those crops which are ready for gathering prior to the showing of the cotton seed. Frequently, however, two crops are found growing in a field at the same time. Wheat, for example, which is a winter crop, is reaped in the Shanghae district generally about the end of May, while the proper time for putting in the cotton seed is the beginning of that month or the end of April. In order, therefore, to have cotton on the wheat lands, the Chinese sow its seeds at the usual time amongst the wheat, and when the latter is reaped, the former is several inches above ground, and ready to grow with vigour when it is more fully exposed to the influence of sun and air. The Shanghae season—that is, from the late spring frosts to those in autumn—is barely long enough for the production and ripening of the cotton, as it is easily injured by frost, and the Chinese farmer is thus obliged, in order to gain time and obtain two crops from this ground in one year, to sow its seeds before the winter crop is ready to be removed from the ground. When it is possible to have the first crop entirely removed before the cotton is sown, it is much preferred, as the land can then be well worked and properly manured, neither of which can otherwise be done. The method of sowing one crop before the preceding one is ripe and removed from the land is very common in that part of the country; and even in autumn, before the cotton stalks are taken out of the ground, other seeds are frequently seen germinating and ready to take the place of the more tender crop. In the end of April and beginning

Varieties. In commerce, Indian cotton was known under the names of Surat, Tinnevelly, Bengal, Broach, &c., according to the locality of its growth or place of shipment. Amongst commercial men the term Surat included the produce of Surat, Berar, and Broach, with occasionally some from Dacca; it came mostly from Bombay. The Madras cottons are those shipped from Tinnevelly, Coimbatore, and other parts of that Presidency, whilst the Bengal takes in Bundelcund. Nagpore, and the far northern provinces. Examined under a microscope the staple of these sorts appears to range from seventeen-twentieths to one and one-tenth of an inch in length; the staple of the celebrated Sea Island cotton being usually an inch and a half in length.

The varieties of cotton known in the commercial world may be referred to three distinct species, each having several sub-varieties. The Gossypium barbadense is the species cultivated in the West Indies, North America and in one or two parts of the peninsula of India. Gossypium peruvianum yields the cotton of Brazil, Pernambuco, Peru, &c. This also has been introduced into some districts of India. Gossypium indicum is the species which, in a number of varieties, produces the great bulk of the cotton of India and China. There is a fourth species, also, the Gossypium arboreum, or Tree-cotton of India, peculiar to India alone,; it is unfitted for manufacturing purposes, unknown to commerce, though yielding a beautifully soft and silky fibre, admirably adapted for padding cushions, pillows, &c.

Of the Indian species there are many varieties, each possessing some distinguishing character of its own, arising from mode of treatment, soil &c. It usually attains a height of four or six feet, is bi-triennial, but may be equally cultivated as an annual, germinating and ripening its seeds within a period of from four to eight months. The leaves are five lobed; flowers are usually found blossoming singly at the extremity of the branches; the petals being of a yellow colour, with a small purple spot near the claw. The seeds are five in number, and are clothed with a firmly-adhering greyish down, beneath the short white wool of the capsule.

The qualities by which the value of cottons are determined may be confined to three: viz., length of staple, strength of fibre, and cleanness of sample. Colour, which at one time was thought much of, is no longer looked upon as a matter of moment. Inferior as the cotton of India is allowed to be, as regards its staple and purity, there is every reason to believe that in durability it at least equals the produce of any part of America, and of this fact the hindoos are themselves perfectly aware. Dr. Royle gives three distinct varieties of cotton all indigenous to Hindustan. The common description is found scattered more or less throughout India, reared as a triennial or annual. It reaches the height of five or six feet in warm, moist climates; the seeds are five in number, clothed with a short greyish down. In the peninsula there are two distinct species of this sort, known amongst the natives as *Oopum* and *Nadum.* The first thrives only on the richest black soil, and is an annual, producing a fine staple: the latter is a triennial plant, and grows on the poorer red soil, yielding small crops of inferior quality. Next to these we have the Dacca cotton, as a distinct variety of the Gossypium Indicum. It differs from the previous variety in the plant being more erect, with fewer branches, and tinged with a reddish hue, whilst the cotton is finer, softer, and longer. This variety is reared more or less extensively throughout Bengal, especially in the Dacca district, where it is employed in the manufacture of the exquisitely fine muslin cloths known over a great part of the world as Dacca muslins and whose delicacy of texture so long defied the imitation of the art-manufacturers of the West.

A third variety is the cotton grown in Berar, in the northern provinces of the Madras Presidency, and in Surat and Broach. This plant attains a greater size than the preceding, bears for a longer period, and produces a fibre of a finer quality than the former. It appears to thrive best on a light black soil.

Soil. The soil in which all these Indian varieties thrive may be classed under two distinct heads, the black cotton soil and the red cotton soil. The former, as its name indicates, is of a black or deep brown colour, of a clayey nature, forming in the rains a heavy tenacious mass, and drying into solid lumps in the hot months. An analysis of this gives 74 per cent. of silex, 12 of carbonate of lime, 7¼ protoxide of iron, 3 of alumina, 2 of vegetable matter and ⅓ salts, with a trace of magnesia. The red soil of India has been found in some localities better suited to the growth of cotton than the black earth. It is a rather coarse yellowish red soil, commingled with particles of the granitic rocks,—silex, felspar, and aluminous earth. It mainly differs in composition from the preceding in the iron existing in the state of peroxide or red oxide, whilst the carbonate of lime is found present in greater abundance. Analyses of the best cotton-soils of America prove that they differ from those of India chiefly in the large por-

Place of growth.	Per lb. Pence.
Seebee of Hydrahad...	... 11 to 12
Singapore, Dera Ismael Khan, Belgaum,...	12
Ahmedabad, Piplee of Cuttack, Arrah of Shahabad...	.. 13 to 14
Singapore...	12 to 15
"	14 to 24
Malacca...	13 to 15
Burhee & Bussureah of Hazaribagh ..	12 to 15
Sutwari and Chirkaree of Bundelcund	12 to 18
Province Wellesley ; Bancoorah ...	... 14
Gluga of Penang ..	... 13 to 16
Do. do	.. 24 to 36
Chingleput, Poonah...	... 13 to 14
Salem, Madras...	... 14 to 15
Arrah .	... 14 to 16
Chingleput...	... 13 to 15
Arakan...	... 12⅓
Seetagurrah, Hazareebagh ..	... 12 to 16

The successful agent in the Dharwar experiments with exotic seed, Mr. A. N. Shaw, of the Bombay Civil Service, was transferred to Dharwar in 1842. The success of the Dharwar experiments was not immediate. Mr. Shaw had failures and disappointments to encounter as others have had ; but his perseverance at last commanded favorable results. The long extent of sea-coast about Surat and Broach, embracing many hundred miles, would seem particularly well adapted to the culture of the more valuable staples—such as Sea-island, Pernambuco, Egyptian, and Bourbon, but the scene of Mr. Shaw's labors was laid in a district where the soil and climate have long since been recognized as eminently suitable to the growth of cotton.

Foreign Cotton. A Bengal Civil Servant, located during ten years in the North-Western Provinces, cultivated Mexican cotton, and the acclimated produce was pronounced excellent in Lancashire. The average yield per acre was from 200 to 250 lbs. of clean cotton. Practical experience may, therefore, be safely represented as establishing the fact that India can produce excellent exotic cotton. Dr. Wight of the Madras Medical Service, who for eleven years superintended the Coimbatore experiments, informed the [illegible] that Coimbatore cotton selling in Liverpool at 4*d.* per lb., would barely remunerate the grower. But prices vary with the fluctuations of American cotton; and " ours," says Dr. Wight, " has always borne nearly the same prices in Liverpool as American-grown cotton, under the same denomination, bore there." Thus, the Coimbatore produce was generally ranked as " fair" and " good fair," and on the very day (6th June 1853) when Doctor Wight gave his evidence, cotton under that denomination was fetching in Liverpool from 5*d.* to 5½*d.* per lb.—a price that would leave a very large profit.

American cotton was introduced, and large quantities of seed distributed, among the ryots in the Raichore Doab under Capt. Taylor's supervision, and the cultivation of it had continued to increase up to the time of the restoration of the district to H. H. the Nizam in the beginning of 1861. The total number of acres in that district under cotton cultivation is shown below, and, separately, that portion producing American cotton.

F ee cal	Indiger cot. ton, N icres cult d.	Americ otto No. acre culti ed.	Total
1267....	1,99,204	630	1,99,834
1268....	2,43,781	2837	2,46,618
1269....	2,38,221	5574	2,43,795

White jowaree, wheat, linseed, flax, turmeric, &c., are all produced on dry black cotton soils, but they take their turn in rotation with cotton, which is generally sown every second year.

Yield. In the N. W. Provinces of India, the yield varies from 2 to 6 maunds of uncleaned cotton per acre, and of cleaned cotton less than from 30 seers to 1 maund and 35 seers ; but in the S. E. parts of the N. W. Provinces, cotton is often sown along with arahar and sesamum, so that it ranges per acre, from 4 to 6 mds. of unclean and from 1⅓ to 2 mds. of clean cotton. Messrs. Fischer and Co. produced 41¼ lbs. per acre of clean Oopum cotton, and 60 lbs. per acre of clean Bourbon cotton. The average cost of cultivating a bhar of the cotton plant in the Broach district, including rent and all charges, is Rs. 15. The average quantity of the cotton plant which yields a candy of cotton of 784 lbs. is 2½ bhar. Therefore, the cost of a candy of cotton does not exceed, on an average, Rs. 15 × 2½ = Rs. 37½. While the average price paid the ryots, for [illegible] of cotton and they produced ten bhar of cotton. At the rate of Rs. 15 per bhar, the total cost to him of these ten bhar, including rent and all charges, was Rs. 150. The price paid to him for it was Rs. 360.

It has been stated by Dr. Wight, that the average consumption of cotton by the inhabitants of Hindostan amounts to not less than twenty pounds for each person. This would give a local annual consumption of 3,000,000,000 lbs. ; and with the quantities taken by Great Britain and China, a total yearly crop of 3,110,000,000 lbs.

industrious.—(*Low's Sarawak, p. 55. Dublin University Magazine*, June 1857.)

America.—Mr. Bonynge, an American gentleman long resident in India, was of opinion that America has reached her utmost limit of producing cotton, and that India must be depended on in future. He stated that in America there had been a falling off in progressive increase of $54\frac{10}{13}$ per cent., and that probably in the next ten years there would be no increase over the last ten. So it may be said, he adds, that the production of cotton in America has not increased materially for twelve years—there having been only an increase of 160,000 bales yearly, over the former six. From the year 1839 to 1850, the cotton crop in America was comparatively stationary in quantity; and the cotton crop realized more in dollars for five years—from 1835 to 1840—than in the two following periods from 1840 to 1845, and from 1845 to 1850. He concluded, that cotton admits of no further increase for the employment of additional hands, and the cotton states complain that the land yields them nearly one-third less produce, and sells for one-third less price. Cotton planting in the Eastern States is below L. 20° N. It will not even do well low down in Florida, and the chief cultivation is northwards of the 27 deg. to 36 deg. N latitude. Probably India produces twice the quantity that America does. Americans consume 11½ lbs. per head and it has been calculated that the East Indian people consume 20 lbs. per head; but Great Britain only 4½ lbs. per head.

Indian Cotton is somewhat difficult to spin, from its often breaking, and requiring more turns of the spindle, from its shortness of fibre, than that of America. But the yarn made from a pound of East Indian cotton which cost 3½ pence sterling, will sell for 7 pence, while, from the American, which cost 4½ pence the lb., the yarn sells for 7¾ pence.

Native Indian Cotton is a small podded, small seeded, short stapled variety: but in picking the seed, in carefully gathering and ginning, it may be much improved. Dr. Cleghorn mentioned that he had examined and compared all the species of Gossypium in the Herbarium of the Botanical Society (comprising the collections of Buchanan Hamilton and Lady Dalhousie, with contributions from Wight, Campbell, &c.) and also those in the Herbarium of Professor Balfour, with a view to expiscate the specific characters by which to discriminate them from one another: he considered the entire series remarkable, as showing the striking differences which soil, climate, and culture produce in species, and which may appear in nature, giving rise to a multiplication of species. The whole group of so-called species seemed to him referrable to G. herbaceum, *Linn.*, G. arboreum. *Linn*, G. barbadense, *Linn*, and G. acuminatum, *Roxb.*

Testimony is, now, conclusive that India can grow the New Orleans plant as well as the native one. Mr. Shaw says, on this point (Cotton Report, pages 318 and 319),—the plant from New Orleans seed is as hardy as the native one, and the return much larger. The only cotton that can compete with the American is the New Orleans, or other imported staples, but never the native one.

Experiments in Darwar were commenced by him in 1842. The Government afterwards sent down one American planter and one English planter, who had farms of their own. They were abolished because they did nothing. The ryots cultivated better. When he left, in November 1847, 25,000 acres of land were under New Orleans cotton. He did not at all interfere with the planters. His object as Collector was to beat the planters, if he could, with the ryots, and he did beat them.

Dr. Wight says, (Cotton Return, page 337), the New Orleans plant is constitutionally as well adapted for sustaining the high temperature of our Indian hot season as even the native one, and after a temporary check from long-continued drought, it revives fully as quick as the other.

Mr. Sympson, an American planter, says (page 380,) three years of experience at Coimbatore, has convinced me that the natives are, and must ever remain, the cultivators of the soil, and cotton culture will always be carried on in their own way.

Mr. Shaw says (at page 186, Cotton Report,) Cotton cultivation in India would not be a profitable speculation for Europeans; the natives can grow it much cheaper. Our function is simply that of buyer. We have no local market for the American cotton. It does not answer for native spinning so well as their own.

From the year 1829, indeed ever since 1790, till the present, the efforts to improve the cotton crops have been almost continuous. Experienced planters from America were employed, and Drs. Wight and Watson were long engaged in experiments in Coimbatore, Guzerat and Dharwar. The plant has always been grown in almost every district of India, for local use or export, in soils suitable and unsuitable to its growth, and at the London Exhibition of 1862, the values of 138 samples exhibited ranged from sixpence to three shillings the pound.

to be growing up, but, with this exception, the whole of the cotton of lower Bengal is retained for its own consumption. It is found that any decline in native weaving is confined to the towns; in the villages it is still going on much as usual. In the villages both the cotton growers and those who receive cotton from them as a payment in kind, find it more convenient to make their own cloth at home than to purchase it ready made. The women spin the thread, and the village weaver is then hired to manufacture the piece, or the work is given out to him by the job, and he is paid in cotton. Thus, whilst the weavers in town are unable to purchase cotton from its excessive dearness, the weavers in villages are supplied with the material by the persons who employ them, and who also pay them in cotton. In the eastern districts, cotton weaving has declined altogether, simply from the fact that there is little local cultivation, and, consequently, the facilities indicated are not afforded to the native weavers, and the demand for native goods is greater than in the western districts.

In the lower provinces of Bengal, where the cultivation of the plant is almost entirely limited to the requirements of the local population, there are five districts—viz., Chittagong, Cuttack, Maunbhoon, Loharnuggur, and Assam—in each of which upwards of 10,000 acres of soil are so appropriated of cotton culture. And in some of these, as well as in several other districts where the present acreage is considerably less, it is known that the cultivation might be widely extended. In the North-Western Provinces, a return showed that cotton is, more or less, grown in every purgunnah or district—from Kumaon, with 260 acres, to Banda, which exhibits 230,557 acres under cultivation. The eastern shores of the Bay of Bengal are no less favorable to the production of cotton. The indigenous cotton of Dacca has long been celebrated for its superior quality. It is cultivated along the banks of the Megna from Feringybazar to Edilpore in Backergunge, a distance of about forty miles; on the banks of the Brahmaputra creek (the ancient channel of the river of the same name), and along the Luckia and Banar. It presents different shades of quality, the finest of which is named photee, and is the material of which the delicate muslins are made. It is described by Roxburgh as differing from the common herbaceous cotton plant of Bengal in several particulars, but chiefly in having a longer, finer and softer fibre than it.

The Sea-Island variety was formerly successfully grown in the Sunderbuns. About the year 1833, the late Mr. James Kyd called attention to the soil of the Delta of the Hooghly as, in his opinion, admirably adapted to the culture of American cotton of the black-seeded long staple variety. A small quantity, raised by him in 1833 on Saugor Island, from Sea-Island seed, was pronounced by good judges of the article as the best they had seen of Indian growth. On comparing this cotton with that grown near the Mutla, and, allowing for deterioration from age, the latter is superior to the former in every respect. The unusually heavy inundation of the sea, in 1833, swept away the various cultures introduced on Saugor Island, and with them this thriving cotton plantation.

In Burmah, the description of cotton grown is almost all of indigenous growth, (Gossypium herbaceum) and it reaches a very fair staple. The soil on which it thrives best is the alluvial deposit left by the numerous mountain streams and rivulets on their subsidence at the close of the south-west monsoon. It also grows very well on recent forest clearings, where, often, soils containing a considerable portion of peaty matter and lignite are met with, and appear very suitable for the good of the plant. It appears to thrive also in a limestone soil, which abounds in these provinces.

The average produce of cotton in Amherst Province for five years was calculated as follows:—

Years.	Acres.	Mds.	Years.	Acres.	Mds.
1856 57	325	1398	1859-60	320	1375
1857-58	315	1354	1860 61	211	907
1858-59	379	1628			

An acre is estimated to yield about $4\frac{3}{4}$ maunds of cotton, value 15 Rupees, and which when corded was sold in the Moulmein bazars at an average of Rupees 24. Several efforts had been made to induce the Burmese peasant to take to the culture of foreign cotton, but he was most impracticable in this respect. In Tenasserim a small quantity of Pernambuco cotton (Gossypium acuminatum) was grown from seed introduced by Mr. Blundell and Major Mac-Farquhar; it appeared to flourish well, but is cultivated generally about houses in a very insignificant quantity.

Borneo.—Cotton is grown by the sea Dyaks of Borneo, sufficient in quantity for their own use, and to make cloths for exportation.

China has been a largely importing country. The cotton growing area in that country is, however, very large, the population dense and into which the long tap root of this plant may delve and there are the fertilizing rains, and, failing them, the facilities of irrigation, which that tap root requires, in order to suck up sustenance. There is the hot sun to draw the fruit to maturity, and there also is a redundant population to go forth and gather the harvest. These are the conditions under which cotton becomes an enormous produce.

Cotton grows luxuriantly on the sea-board of Cutch, and in the fertile peninsula of Guzerat.

Berar.—The grand cotton-field of India, however, lies partly within the dominions of the Nizam, and partly in the province of Nagpore. The extent of cotton cultivation throughout this vast tract cannot be estimated with any near approach to accuracy. But this region is beyond doubt the part of India from which the largest supply must ever be hoped for. Chundelee, a very fine cotton fabric of India, so costly as to be used only in native courts, is made from Berar, or Oomraotee, cotton. The chief care is bestowed on the preparation of the thread which, when of very fine quality, sells for its weight in silver. The weavers work in a dark under ground room, the walls of which are kept purposely damp to prevent dust from flying about. Oomraotee cotton is alone used. (*Elliot.*) It is stated on the authority of Mr. Terry, "the most practical and skilled of the American planters formerly employed experimentally by Government," that "the plant yielding what is known in the market as Omraotee cotton, and which, probably, does not differ from that of Goozerat, is a distinct variety from that of other parts of India, having three lobes only in the capsule, while the latter has four; and that that cotton, if well prepared, is equal to any American cotton for the great bulk of the manufactures of England."

Mr. Talboys Wheeler, who wrote the Cotton Hand-book for the Madras Presidency, drew the following four general conclusions, viz.

1st. American cotton can be grown, but the profit is questionable.

2nd. Indian cotton may be improved, but only to a degree.

3rd. American cotton must always command a higher price than Indian.

4th. The demand for Indian Cotton must always depend on the supply of American. But a superior cotton can undoubtedly be raised in the Carnatic at a cost not exceeding the production of the common native fibre. The tenure of land in the Madras Presidency leaves the ryot free to grow what crop he pleases; there is no export duty or special tax on cotton, and the assessment is nowhere heavy. The exports of cotton from the Madras Presidency have increased of late years, and if cotton be still not grown in the quantity or of the quality desired, the cause must be that some other crop is more remunerative to the ryot. A steady market at a remunerative price is the great want, and this the mercantile community alone can supply. There is grown in India a vast supply of cotton and it is capable of increase by extended cultivation consequent on increased demand. A large portion of the existing supply is absorbed by the local manufacturers, but is capable of diversion if increased prices are offered by exporters. The diversion to other markets may be immediate; but an increase requires the lapse of at least one season after the demand arises, and some prospect of a continuance of that demand. Every rise in price of Indian cotton in England, however small, if likely to be permanent, exercises an immediate effect on the export of cotton from India to England; the quality is capable of great improvement, but by a more tedious process. The American cotton plant cannot withstand so much drought as the Indian. The ordinary native cotton cleaning machine, for freeing the cotton fibre from the seeds, has not yet been equalled by all the mechanical skill of Europe.

At Coimbatore, the Oopum or best indigenous cotton is raised in rotation of two years, with cumboo, Panicum spicatum, and cholum, Sorghum vulgare. The Oopum cotton is raised on black soil, but the little Bourbon cotton is grown in redsoil. Gossypium Indicum grows wild in Sind and the Punjab.

Cotton is grown in drills in Bellary, along with cholum or millet; with the former the drills are about six feet apart, and have from four to six rows of cholum, between each one of cotton; with the latter, the drills of cotton are only three feet apart, and have two rows of millet between them. When the crop of the millet is cut down, a very singular and sudden change occurs, one day nothing is seen but yellow grain, which, on the next, disappears, and a thick crop of green cotton, about half a yard high, remains. None of the fields are enclosed, but they are generally protected at the sides of the road, by rows of the prickly Jamaica yellow thistle, Argemone Mexicana.

In Mysore, large belts of land in the northern and central talooks are deemed excellent for cotton culture.

In Ceylon, cotton is grown very generally both by the Singalese and Tamul races, but upon no regular plan nor to any extent.

In Bengal the cultivation of cotton is considerable, except in Assam, Tipperah, and Chittagong. In the two latter districts a large export trade in this article appears

Exports from India of Raw Cotton.

Year.	Quantity. lbs.	Value. £.	Year.	Quantity. lbs.	Value. £.
1850—51	....	3,474.789	1860—61	.....	7,342,168
1851—52	....	3,619,989	1861—62	....	10,203,470
1852—53	....	3,620,494	1862—63	473,678,421	18,779,040
1853—54	197,745,565	2,802,150	1863—64	550,126,402	35,864,795
1854—55	173,780,192	2,428,764	1864—65	525,052,876	37,573,637
1855—56	.....	3,314,951	1865—66	803,150,424	35,587,389
1856—57	319,653,524	4,437,949	1866—67	....	16,158,277
1857—58	260,354,052	4,301,768	1867—68	614,056,049	20,092,570
1858—59	217,861,572	4,094,100	1868—69	697.630,796	20,149,825
1859—60	315,953,569	5,637,624			

The rulers of British India long ago made the first attempt to extend cotton cultivation, to improve the staple, and to establish better methods of cleaning and packing the produce, for the distribution of seed of a superior quality commenced so far back as the year 1788.

Nurma-bun cotton is grown in Malwa, and cultivated in small quantities all over Hindoostan, and its produce is in great request for the manufacture of the best kind of brahminical thread. It is a bushy plant, grows to the height of about seven feet, and lasts about six years.

In the Punjab, in 1866, the total area under cotton cultivation was about 624,193 acres, most in the Umritsur and Rawul Pindee divisions; and least in the Peshawur division; the Rohtuck, Goordaspoor, and Umballa districts being those in which the largest extent of ground is sown with cotton; while in Simla and Sirsa districts it was hardly grown at all. The average produce per acre, after the cotton is cleaned from its seed, is a little over one maund (or 80lbs.), the rate varying from three maunds (240lbs.) in the Hooshyarpoor, to 16 seers (32lbs.) in the Kangra district.

Cotton grows to great perfection in Bundelkhund and its produce is not only more abundant, but also of a softer texture and of a whiter colour than that of the Doab: hence it bears a higher price and is more eagerly sought after. It has always formed the staple commodity of the Calpee market. The purchases of Government at one period amounted to forty lakhs a year, and of private individuals, it is said, to 18 lakhs. In 1830, the former were discontinued and the latter dwindled down to an annual expenditure of barely seven lakhs.

The Doab, as well as Bundlecund, have always grown considerable quantities of cotton.—(*Royle. Bonynge America, page* 38.)

The cotton of Jaloun and Jhansi (writes Mr. Bell) was formerly much celebrated. Koonch is now the great mart in that direction, and it is surrounded by the Jaloun territory. Mr. Bell, after making careful inquiries, ascertained that the cotton of Baugchenee was that which then was in most repute with the natives of those parts, who gave about 7½ per cent more for it than for the other best kinds. The district is on the south of the Chumbul, near Dholpore, and therefore probably very similar in soil and climate to that of Jaloun and Jhansi, which are not very far distant. As these districts, as well as Bundlecund, lie to the westward of the Jumna, and have always been famous among the natives for their cotton, it is probably owing to some physical peculiarities of soil, or of climate, that the cotton is produced of a better quality, for we cannot discover that it has the advantage of any more careful culture or cleaning.—(*Royle*)

Mr. Mercer, an American planter, reported "Dharwar as more like the Mississippi climate than any other he met with in India. The elevation modifies the climate, which also feels the influence of both monsoons or rains, so that it never becomes extremely dry, and is never inundated with excessive rains," and the seed returns to its original Mexican character, instead of deteriorating as in other parts of India. (*Bonynge America, pages* 16 *to* 40.) The mode of improving the Indian cotton, which seems to hold forth the surest promise of eventual success is to bestow all possible attention upon the culture of New Orleans, Mobile, Upland, or Mexican cotton: which (in India) are practically one and the same variety, the denomination only varying according to the locality from whence imported. This is the sort of cotton for which there would always be an unlimited demand at Manchester. The proport on of its seed being considerably less than that of most other cotton, an equal area sown with New Orleans is more valuable than if sown with other exotic or indigenous Indian seed; it gives a larger yield. It yields more wool in proportion. It commands a hier price in the market. It requires no peculiar mode of culture or treatment, other than is applicable to indigenous species. When this class of cotton shall gain a firm footing in India, it must rest entirely with the discretion of cultivators and dealers, whether they will attempt introducing the finer staples in particular localities. But the New Orleans seed must be relied upon as the most generally remunerative, and the most universally suitable to Indian soils and climates. In the Southern Mahratta country one cwt. of clean cotton per acre may be accounted a fair yield—(*Dublin University Magazine, June* 1857.)

Between the Jumna and the Ganges, there are 20,000 square miles of soil which nature seems to have intended for one vast cotton field. There is the great depth of sandy loam of the latter species. The manufacture of cotton—an art in Europe of growth so recent as the end of the sixteenth or beginning of the seventeenth century—has been carried on in India from very remote antiquity. As noticed above, Herodotus, and at a later period, Arrian, speak of certain wild trees in that country producing a kind of wool superior to that of the sheep of their day, and state that a cloth woven from this substance was in universal wear amongst the inhabitants in their time. The natives had, indeed, attained such a perfection in the arts of spinning and weaving, that the lightness and delicacy of their finest cloths emulated the gossamer's web, and seemed to set competition at defiance. Yet neither the extreme cheapness of his labor, nor his acknowledged manual skill, has enabled the Indian artisan to withstand the triumphs of mechanical genius. And the striped and figured muslins of Dacca, so long celebrated throughout the world for the beauty and delicacy of their fabric, are now almost entirely displaced by the productions of Manchester and Paisley. But cotton is nevertheless, even now, one of the leading features of Indian agriculture. It forms part of an established course in most village lands throughout the plain country; and except upon swampy, desert, or absolutely sterile ground, there is no situation in which it cannot readily be grown. Throughout British India, the aggregate extent of cotton growth was very recently no less than 5,147,223 acres. The Board of Trade returns show that the total imports into Great Britain of Indian cotton, during five years (from 1849-50 to 1853-54,) were as under viz :—

	lbs.
From Bengal, ...	10,573,653
„ Madras, ...	43,093,473
„ Bombay,...	598,218,670
Total from India...	652,785,801
From other countries...	3,368,282,031
Total imported by G. Britain,	4,021,067,832

The indigenous plant of India is an annual, and succeeds best in the rich black soil that characterises various districts. The American plant, though in reality perennal, is practically an annual in India; for in India neither native nor foreign cotton is cultivated on the same ground more than one year in three, its properties being found to exhaust the productive powers of the soil. American cotton grows well on the black soil of India, but thrives still better on the light red lands. Each species possesses advantages peculiar to itself. The Indian variety is capable of being manufactured into fabrics of extraordinary durability and wonderful fineness; its color too is superior, but the staple short. The American species on the other hand, excels in length of staple; the plant yields more flowers, and each flower a larger pod, whilst the quantity of seed contained in the pod is smaller and more readily separated from the fibre. Mr. Laing, in a letter to *The Times*, shows that Sir C. Wood, as to the future supply of Indian cotton, makes it entirely a question of price, citing the authority of Lord Hardinge ten years ago; while Mr. Laing thinks that both climate and soil are so much against India, that its average produce per acre will never approach that of America, but he seems to exempt Dharwar. Mr. A. N. Shaw, who was Collector of Dharwar, corrects both. He expresses an opinion that while Mr. Laing's facts may hold good of indigenous cotton, there are few parts of India where American cotton will not grow as luxuriantly as in Alabama, the best cotton field in America for green seed. The average produce per acre of seed-cotton of the whole cotton states is about 530 lb.; 1,000 lb. of seed-cotton are said to produce from 400 to 500 lb. of marketable wool. At Dharwar, in 1844, after a careful analysis, it was found that cotton grown from American seed yielded from 350 to 400 lb. of seed-cotton per acre. Similar success was met with in Sind. The following is the progressive advance in the cultivation of Amercan cotton in Dharwar.

ACRES UNDER CULTIVATION.

Years.	American Cotton.	Native Cotton.	Total.
In 1851..	31,000	223,000	254,000
„ 1852..	42,000	222,000	264,000
„ 1853..	28,000	251,000	279,000
„ 1854..	41,000	252,000	293,000
„ 1855..	63,000	210,000	273,000
„ 1856..	50,000	191,000	241,000
„ 1857..	82,000	197,000	279,000
„ 1858..	101,000	252,000	353,000
„ 1859..	105,000	215,000	320,000
„ 1860..	186,000	230,000	387,000
„ 1861..	154,000	234,000	388,000
„ 1862..	201,000	177,000	378,000

Mr. Samuel Smith of Liverpool, in his Annual Cotton Circular at the close of 1862, gave

Import of Cotton into Great Britain.

	American.	East India.	Brazil, Egyptian, &c.	Total.
1861	1,841,000	986,000	208,000	3,035,000
1862	72,000	1,073,000	300,000	1,445,000

Export of Cotton from Great Britain.

	American.	East India.	Brazil, Egyptian, &c.	Total.
1861	263,000	409,040	5,000	677,000
1862	86,000	440,000	38,000	564,000

Thus Great Britain exported more than a third of its whole import.

COTTA KALANG, Tam. Aponogeton monostachyon. *Thunb.* Commonly found growing in the beds of tanks. Root eaten in Caffraria as a great delicacy; it is relished by the natives of India.—*Ainslie, page* 248.

COTTIMBIRI. Can. Coriander seed.

COTTON.

Kutun	Ar.	Kuttun	Maleal.
Bomuld	Dan.	Kapas	Malay.
Boomwol	Dut.	Pumba	Pers.
Katoen	,,	Bawelna	Pol.
Coton	Fr.	Algodao	Port.
Baumwolle	Ger.	Chlobts-chataja	Rus.
Kapas	Guz.	Bumaga	,,
Rui	Hind.	Kapasa; Karpas;	Sans.
Bambagia	It.	Algodon	Sp.
Cotone	,,	Bomull	Sw.
Gossypium	Lat.	Panji	Tam.
Bombax	,,	Patti	Tel.

Cotton wool consists of the hairs attached to the seeds of species of Gossypium, and the plants have been characteristic of India from the earliest times, and at the present day, the great majority of its people are clothed with fabrics made from cotton, which is woven to a large extent in India, but largely also in Europe and America. In England, in 1861, there were upwards of 500,000 persons employed in the cotton manufacture, of whom nearly 400,000 were working in Lancashire; a number equal to 25 towns of 20,000 inhabitants each, all wholly engaged in the cotton trade. The engineers, mechanics, and the workers in iron, steel, brass, copper, tin, and wood, and the shopkeepers and other tradesmen supported by them may be reckoned at half that number (250,000). The women and children, and those not able to work and dependent entirely on the cotton operatives, may be taken as half those at work (250,000). The total number of persons then dependent upon the cotton manufactures may therefore be taken at 1,000,000, of whom 800,000 were in Lancashire and the immediate neighbourhood. The first distinct notice of cotton is in the Book of Esther, i. v. 6, where its Sanscrit name Karpas is translated greens, in the English Bible. Herodotus and Ctesias notice it, but it was not till the invasion of India by Alexander that the Greeks were acquainted with the plant, as may be seen in Theophrastus and also in Pliny. In America, two distinct varieties are indigenous; G. Barbadense, yielding the cotton from the United States, and G. peruvianum or acuminatum, that which is produced in South America. India, also, has two distinct species, G. herbaceum, or the common cotton of India, which has spread to the south of Europe, and G. arboreum, or tree cotton, which yields little, if any, of the cotton of commerce, and is very distinct from the species of Bombax often called cotton-tree and silk cotton-tree. The species of the genus gossypium consist of large or small shrubs, and one forms a tree. All have alternate leaves, which are more or less palmate or lobed, and usually covered, as well as the young branches, with little black dots, and the nerves below have one or more glands. The flowers are large, showy, more or less yellow or red, consisting of five petals, united at their base, subcordate flat and spreading. Each cell contains from 5 to 7 ovoid seeds, from the seed-coats of which arises the filamentous substance, which by its twisting envelopes the seeds. Along with this cotton there is often a short covering, called fuzz by planters. Cotton wool is formed of tubular hairs, which, in drying, become flattened, and are transparent, without joints, and twisted like a corkscrew. Under water, they appear like distinct, flat, narrow, ribands, with occasionally a transverse line, which indicates the end of cells. This twisted nature of the cotton fibre is probably the reason why cotton cloth is not so well fitted as linen for surgical dressings. But being a worse conductor of heat than linen, it is well suited for inner clothing, where the object is to preserve uniformity of temperature, as it will retain heat, and prevent the body being so readily affected by external heat or cold. At the same time that it condenses less freely than linen the vapour of perspiration, but absorbs it readily when it has been condensed into the form of sweat. (*Royle, page* 289.) The cotton plant, Gossypium herbaceum, of which there are many varieties, is indigenous in the tropical regions of Asia, Africa and America. It flourishes also in the southern provinces of the United States; and, although an exotic there, has been cultivated with such success, that its produce is an important article of commerce. Cotton wool bears value according to its color, length, strength, and fineness of fibre. Pure whiteness is generally held to denote a secondary quality; whilst a yellowish tinge, provided it be not the result of casual exposure to damp, or the natural effect of an unfavorable season, is indicative of superior fineness. Many varieties of raw cotton are seen in commerce, each sort being usually distinguished by the name of the locality where it is produced; but the main distinction recognised is that between the long and short stapled qualities; though of these, again, there are different degrees of excellence. The "sea island" cotton of Georgia (so named from being raised on certain narrow sandy islets lying along the coast of that province) is esteemed the best of the long-stapled kind; and the "upland" produce of the same state excels amongst the short-stapled classes. The indigenous Asiatic cotton is exclusively preparation. The quantity collected, according to Dr. Falconer, is very large, amounting to about two million pounds per annum. The cost of its collection and transport to a mercantile depot in Cashmere is about 2s. 4d. the cwt. The commodity is laden on bullocks and carried to the Punjab, whence the larger portion goes down to Bombay, where it is shipped for the Red Sea, the Persian Gulf, and China; a portion of it finds its way across the Sutlej and Jumna into Hindostan Proper, whence it is taken to Calcutta, and bought up there with avidity under the name of putchuk. The value is enhanced at Jugadree, on the Jumna, to about 16s. 9d. or 23s. 4d. per cwt. In the Chinese ports it fetches nearly double that price per cwt. The Chinese burn the roots as an incense in the temples of their gods and regard it as aphrodisiac. The import into Canton in 1848 were 414 piculs, and in 1859 were 854 piculs, and valued at 5,150 dollars. In Cashmere it is chiefly used for the protection of bales of shawls from insects. The exports from Calcutta were

1841-42 ...	12,847	In 1848-49 ...	2,110¾ worth
1847-48 ...	2,050¼		about £1,500 annually.

The sweet or mild kind, called koosht shereen, is of light yellow colour and pleasant smell. Dr. Royle supposed it to be identical with the Indian orris root, but this is called bekh i-banafsha, is imported from the Red Sea, and appears to be in every respect identical with the true orris root. Dr. O'Shaughnessy, writing in 1842, says putchuk is of unknown origin; though usually referred to Costus arabicus or speciosus; the roots of the latter are quite insipid and inodorous. Dr. Royle inclines to the opinion that it is in reality the produce of an umbelliferous plant; specimens have been seen by Mr. Beckett of Allyghur having hollow stems. —*Royle, p.* 360. *O'Shaughnessy, p.* 652. *Royle Productive Res. Simmonds.*

COSTUS ARABICUS. Linn. syn. of Costus speciosus. The roots of Costus arabicus, *Linn, Falc.*, and Costus speciosus, formerly considered the source of this perfume. See Costus, Putchuk.

COSTUS ARGYROPHYLLUS. An indigenous species of the spirical costus is very abundant in Tenasserim.—*Mason.* Dr. Wight has given figures of Costus Nepaulensis and speciosus.

COSTUS NEPALENSIS. Roscoe.

C. speciosus β angustifolius.

Grows in Nepal.

COSTUS SPECIOSUS. Roxb. Sm.

Banksia speciosa, *Kœn.*	Amomum hirsutum *Lam*
Costus arabicus, *Linn.*	Tsjana speciosa. *Gmel.*
Hellenia grandiflora. *Retz.*	Herba spiralis hirsuta, *Rumph.*

Janakua	Maleal.	Pushkara mulamu	Tel.
Kio or kiu	Beng.	Bomma Kachika	,,
Kimuka	Sans.	Kasmiramu;	,,
Kemboo	,,	Kimuka koshtamu:	,,
Tebu gas	Singh.	Kroshtamu	

A very elegant plant found near the banks of rivers and other moist and shady places in southern India, Cochin-China, the Moluccas, and Sunda islands.

COSTUS ZERUMBET. Pers. Alpinia nutans, *Roscoe.*

COPPER-WARE, tutenague utensils, coral and glass beads, form a small portion of the Chinese trade to India; the Chinese seldom use glass beads as ornaments.

COTE, or KOT. A fort; a castle, in which sense we find it frequently used in names of places as Cote-Pootlee, Cote-Salbahun, Shere-Cote and Chirya-Cote. It is derived from the Sanscrit Kotta, which Klaproth tells us, being adopted into the Mongol, became the origin of the name of Khoten. We may probably look to the same word for the English Cote, and its numerous derivatives, as Sheepcote, Cotswold, &c., &c.—*Elliot Supp. Rel. des Roy. Budd. p.* 18.

COTI. See Kyans, p. 567, 568, 569.

COTI. The complement of an arc to 90°: also one of the sides of a right angled triangle.—Sudda coti; the sine—Cotijya, the co-sine of an angle in such a triangle.

COTON. Fr. Cotton.

COTONE. It. Cotton.

COTONEASTER. A species of this tree forms part of the alpine vegetation of Kodarnath. They are very desirable garden shrubs from the beauty of their foliage, their flowers, and their fruit. They are all readily propagated by seeds, cuttings, layers, or grafting on C. vulgaris, on the common quince, or on the hawthorn. The greater part of the species are natives of Asia.—*Loudon's Ency. of Trees and Shrubs. Hoffmeister's Travels in Ceylon.*

COTONEASTER MICROPHYLLA. See Evergreens.

COTONEASTER BACILLARIS.

Him. mountain ash	Eng.	Rous or Rouns, Punjabi.
Lun; Luni	Hind.	

This is found in the Sutlej valley between Rampur and Sungnam at an elevation of 8000 to 10,000 feet. Wood used for walking sticks. The alpen-stocks of travellers are made of this wood—*Cleghorn. Punjab Report, Kullu and Kangra,* p. 80.

COTTAMBA. Singh. Ceylon almond.

COTTAMALLI. Tam. Tel. Coriandrum sativum. Coriander seed.

Nungklow,
Moleem,
Murriow,
Ramyre
Mowlic,
Cheyla,
Dowarrah Notoormen,
Mowseuram,
Mowdun Poonjee
Mahram.
Mullai Chummut,
Bhawul.
Scenai Poonjee,
Lengkhan Poonjee,
Mowyang,
Nobo
Sopho,
Joerung,
Syung,
Moflong Poonjee,
Mowlong do.
Lyksom do.

Moleem was conquered in 1829, and the rajah of Khyrim ceded to the British the territory to the S. E. of the Oomean or Booga Pane river. In 1861, the rajah was deposed and Malay Singh, a new chief, installed. No engagements have ever been made with Nobo, Sopho, Syung, Moflung Poonjee, and Lyksom Poonjee, but agreements have been entered into with Mowyang in 1829, Dowarrah Notoorman in 1837, Soopar Poonjee in 1829, and in 1860, with Bhawal.—*Aitchison's Treaties, &c., page* 85.

COSSYA HILLS, estimated area 7290 sq. miles, between 25° and 26° and 91° and 92°, Cherra Poonjee 4100 feet, 80 m. in length from N. to S., and 40 in breadth. extend from lat. 24° 35′ to 26° 7′ and from long. 91° 35′ to 92° 4′. About 16 m. on the Sylhet side, and about the same on that of Assam, consists of lowland interspersed with small hills. In the interior, about 50 m. in extent, is an undulating hilly table-land, from 1,500 to 2,500 feet high. Coal is said to abound in the hills of Jynteah. The localities admitting of cultivation are the plateaux of the Cossyah and Jynteah hills, the lower ranges on the Assam border, and the slopes towards the Sylhet plains. The area of the three plateaux is about 3,500 square miles, and their heights vary from 3000 to 6000 feet above sea level. The soil is a ferruginous red clay, with a subsoil of shingle little qualified for profitable cultivation. In the hollows, however, a fine black mould is found extending often over many acres. On the plateaux, miles upon miles of land are as level as the most highly cultivated portions of Kent and the Lothians. On the middle plateau the temperature averages that of the English summer; rising to 72° during the hottest months. The cold weather is less severe than an English winter. The cultivated land in those hills is very little. A late survey gave 12,221 acres or less than 10 square miles as the total in the Jynteah hills; while within an area of 4,450 square miles among the Cossyah hills only 30 square miles have been brought under crops. To the west of the Cossyah hills lies the Garrow country. The climate of the country is deadly, and the British have little intercourse with the Garrow. The Garrow in more immediate relation with the British either pay revenue or tribute in the shape of fines for offences. The others are usually considered independent. The Garrow were in the habit of making constant predatory incursions upon British frontier villages in the plains, and, decapitating their victims, and carrying off their heads as funeral offerings to their departed chiefs. It has frequently been found necessary to punish these outrages by sending military expeditions into the country, and by closing the markets in the plains frequented by the Garrow.

COSSYA, a tributary to the Ganges. It rises in the Himalaya mountains, in lat 28° 25′ long. 86° 11′ S. W., S. E., S. E., S. E., S., into Ganges; length, 325 m. Arun, 310; Tambur, 95; Gogaree, 235; Dud Coosy, 50; Tiljuga, 40 m.—46,000 square miles drained. Where narrowest, and when lowest, stream 1,200 ft. wide and 15 ft. deep. It is larger than the Jumna or the Ghogra. It runs past Midnapoor cantonment.

COSSYPHUS. See Coleoptera.

COSTUS.

Koost	ARAB.	Koot	KASHM.
Kust; Koshta	BENG.	Costus Arabicus	LAT.
Putchuk	HIND.	Koosht-i-Sherin	PERS.

A fragrant substance highly prized by the ancients. It has been shown by Dr. Falconer to be the produce of a genus of the thistle tribe, to which he has given the name of Aucklandia. He found it growing in great abundance all round the elevated summits of Cashmere. From the plants with which it was associated, and the circumstances under which the Koot grows, being one of the Compositæ, or Thistle tribe, with feathered seed, of which, when once established, the dissemination becomes easy, Falconer considered it could be produced to an unlimited extent, of the best quality, in the Himalayas, at elevations of from seven thousand five hundred to nine thousand feet above the sea, and that the Choor mountain alone might be brought in a few years to produce thousands of maunds of it. The root of A. costus is supposed to be the Costus Arabicus, on the following grounds. It corresponds with the descriptions given by the ancient authors, and is used at the present day for the same purposes in China, as costus was formerly applied to by the Greeks. The coincidence of the name; in Cashmere the root is called koot, and the Arabic synonym is said to be koost. It is a gregarious herb, about six or seven feet high, with a perennial thick branched root, with an annual round smooth stem, large leaves and dark purple flowers. The roots are dug up in the months of September and October, when the plant begins to be torpid; they are chopped up into pieces, from two to six inches long, and are exported without further the old minars or coss pillars may be interesting, and may be considered to afford the correctest means we have of ascertaining the true standard.

	Road distance in English yards.	Direct distance in ditto.
Octagonal Minar to Nurelah in Delhi... .	4,513	4,489
Minar between Nurelah and Shapoorgurhee . ..	4,554	4,401
Minar opposite Aleepoor...	4,532	4,379
Minar opposite Siruspoor...	4,579	4,573
Ruins of Minar opposite to Shalimar.... ...	4,610	4,591
Average..	4,558	4,487

Length of the coss—2 miles, 4 Furlongs 158 yards. It is important to observe that the length of the Ilahee Guz deduced from the measurements is $32\frac{818}{1000}$ inches, showing how very nearly correct is the length of 33 inches assumed by the British Government.

This coss resembles the Chinese lih, i. e., the distance which can be attained by a man's voice exerted in a plain surface, and the same may be remarked of the oriental Meel, as well as the European mile and league. The two former evidently derive their names from the Roman milliare, and the difference of their value in different places proves that the mere name was borrowed, without any reference to its etymological signification. Coss is an Indian word; the equivalent word in Persian is Kuroh, the same as the Sanscrit Krosa, of which four go to the Yojan; about the precise value of which different opinions are held. Malcolm says the coss is in general estimated at forty-two to the degree, but its length differs in almost every province of India. It may be computed as never under a mile and a half, and never (expect in that introduced by the mandate of the late Tippoo Sultan in Mysore) more than two miles.

In Guzerat they estimate the coss by the lowing of kine (gao), which in a still day may be heard at the distance of a mile and a quarter. Thus twelve coss is bara-gao.—*Elliot Supp. Malcolm's Central India, Vol I. p.* 20. See Ilahee Guz.

COSSACK, an irregular soldiery whom the Russian government recruited from the country at the foot of the Caucasus, known as Little Kabarda and Great Kabarda, bordering on the Malka and Kouma rivers. Cossack is also a term by which the Mahrattas describe their own species of warfare. In their language, the word Cossakee, borrowed, like many of their terms, from the Moghuls, means "predatory."—*Malcolm's Central India, Vol. I., p.* 69. See Kabarda.

COSSÆA, or Cissia, is the name by which the Greeks knew the tract east of the Tigris. It was also called Elam or Elymais. It is now called Khuzistan, or the land of Khuz. Kusa, the ancient name of the region now known as Beluchistan. Cossæa is supposed to be derived from Koh-siah, or "Black Mountain." The people spread their conquest over Susiana and the districts eastward. See Luristan, Viswamitra.

COSSEE, a river near Mhadeepoor in Midnapoor.

KOSSEIR or Cosseir, a town and harbour on the western side of the Red Sea. It was occupied by the French in their expedition to Egypt, and then by the British. Kosseir harbour is open to the east, but on the north reefs advance into the sea, on the south is a chain of mountains of some elevation. The bottom is rocky.

COSSIM BAZAR, a town near Murshedabad. In the early days of the British, a factory town.

COSSUMBA. CAN. Safflower.

COSSYAH, or Khassia country, on the north-east frontier of India, has iron of great purity, smelted at Pundua; Cassia lignea is one of its principal articles of export, and a variety of parti-coloured cloths, generally known by the name of Sylhet cloths. Some of them are dyed of rich colours, and being of a strong durable texture, are well adapted for table covers, to which purpose they are usually applied in the eastern part of Bengal. The Cossiah and Jyntia hill territory is administered by an assistant attached to the Assam commission. The value of the export and import trade of the country is about rupees 30,000 a year with Assam, and with the Bengal plains about 10½ lakhs, the exports being 7 lakhs. The total revenue from land and taxes in 1857 amounted to rupees 23,023. The first treaty with Jyntia was concluded in 1824. The rajah Ram Sing rendered no assistance during the Burmese war, but his country was taken under protection, and the rajah agreed to acknowledge allegiance to the British. The population of the Jyntia hills is about 40,000 souls, and of the Cossiah hills about 82,400. The Cossiah states are twenty-five in number, of which five,

Cherra Poonjee, Sungree,
Khyrim, and
Nusting, Nuspoong

are commonly called the "Semi-independent States." The chiefs exercise civil and criminal jurisdiction over their own people in all matters pertaining exclusively to them. The minor states, known as the "Dependent States," are twenty in number, the chief of which is Nungklow.

and is often kept in households.—*Tennent Sk. p.* 42.

CORYSTES, a genus of Brachyurous or short tailed Crustacea.—*Engl. Cyc. page* 169.

COSCINIUM FENESTRATUM. COLEB.

Menespermum fenestratum, GÆRTN.

Turmeric tree	ENG.	Jhar-ki-Huldi	DUK.
Mara munjil	TAM.	Mani-pasupu	TEL.

A creeping plant, grows in Ceylon and in Southern India.

COS. A little Dorian island on the coast of Asia Minor, which fell under the power of Ptolemy. It was the first spot in Europe into which the manufacture of silk was introduced, which it probably gained when under the power of Persia before the overthrow of Darius. The luxury of the Egyptian ladies, who affected to be overheated by any clothing that could conceal their limbs, had long previously introduced a light thin dress; and for this dress, silk, when it could be obtained, was much valued; and Pamphila of Cos had the glory of having woven webs so transparent that the Egyptian women were enabled to display their fair forms yet more openly by means of this clothing. Occasionally also, they sent their treasures and their children there as to a place of safety from Alexandrian rebellion; and there the silk manufacture flourished in secret for two or three centuries. When it ceased is unknown, as it was part of the merchants' craft to endeavour to keep each branch of trade to themselves. *Sharpe's Aristotle, Hist. An. V.* 19. *History of Egypt. Vol. I. p.* 263.

COSHTA.—? Corchorus olitorius.

COSMAS, called from his maritime experience, Indicopleustes, apparently an Alexandrian Greek, who wrote between 530 and 550, is the first Greek or Roman writer who speaks of China in a matter-of-fact manner, and not as a land enveloped in half mythical haze. He speaks of it also by a name which no one has ever disputed to mean China.

He was a monk when he composed the work which has come down to us, but in his earlier days he had been a merchant, and in that capacity had sailed on the Red Sea and the Indian Ocean, visiting the coasts of Ethiopia, and apparently also the Persian Gulf, and the western coasts of India, as well as Ceylon. His book was written at Alexandria, and is termed "Topographia Christiana." "Universal Christian Topography," the great object of it being to show that the Tabernacle in the Wilderness is a pattern or model of the universe. Sir J. E. Tennent (Ceylon, I 542) says that Cosmas got his accounts of Ceylon from Sopatrus, whom he met at Adule, and Lassen ascribes all Cosmas says of India to the same authority (ii, 773). But they have not given the ground of these opinions. One anecdote is ascribed to Sopatrus, no more. Writing of the Island of Taprobane in Further India, Cosmas says where the Indian Sea is, there is a church of christians with clergy and a congregation of believers, though I know not if there be any christians further on in that direction. And such also is the case in the land called Male, where the pepper grows. And in the place called Kalliana there is a bishop appointed from Persia, as well as in the island which they call the Isle of Dioscoris in the same Indian Sea. The inhabitants of that island speak Greek, having been originally settled there by the Ptolemies, who ruled after Alexander of Macedon. This Male is evidently Malabar, probably the Kalliena of the Periplus, which Lassen identifies with the still existing Kalyani on the mainland near Bombay. Father Paolino indeed will have it to be a place still called Kalyanapuri on the banks of a river two miles north of Mangalore, but unreasonably.—*Via Galle*; *Indie Orientale,* p. 100. *Yule Cathay I. p. CLXXI.*

COSMEA BIPINNATA. The species of the genus Cosmea, are mostly annuals and ornamental flowers, colours purple, white and yellow; the roots are tuberous, and may be cultivated by dividing the same or by seed.—*Riddell.*

COSMETIC BARK. The fragrant bark of Murraya paniculata, a tree indigenous in Burmah above Rangoon, is more used for a cosmetic than sandal wood. It is a very ornamental fragrant flowering shrub of the citron tribe.—*Mason.*

COSMETIC TUBERCLES. An inferior cosmetic wood of Burmah, is the tubercle of some plant. The Burmese appear, from their name, to regard them as produced by a species of erythrina, for they call them erythrina thorns; but Mr. Mason knows the plant to be a creeper, and suspects that it is Toddalia aculeata and T. floribunda.—*Mason.*

COSMETIC WOOD of Mergui is from one of the Xanthoxylaceæ? is a fragrant cosmetic wood sold in the bazar, which is said to come from Mergui, but Mr. Mason never saw the tree.—*Mason.* See Abeer.

COSMIBUENA. See Cinchona.

COSS, OR KOS. The itinerary measure of India, of which the precise value has been much disputed, chiefly on account of the difficulties which attend the determination of the exact length of the guz, or yard. The Ayeen-i-Akberee lays down distinctly that the coss consists of 100 cords (tunab), each cord of 50 Guz; also of 400 poles (bans), each of 12½ Guz; either of which will give to the coss the length of 5000 Guz. The following particulars relative to the distances between like a lady's fan, and then it is no bigger than a man's arm ; it is wonderfully light." "This tree is, within, a pith only ; they beat it in mortars to flour, and bake cakes of it, which taste much like to white bread ; it serves them instead of corn before their harvest is ripe." (Knox's 'Ceylon.') The Burmese books are all made of the leaf of a species of Corypha.—*Seeman. Royle Fib. Pl. Voigt. Wallace* 158. See Corypha.

CORYPHA ELATA, Roxb.

Taliera elata,	*Wall*	Bujoor BENG.

Grows in Bengal and, according to Mr. Mason, in the Tenasserim Provinces.—*Voigt. Mason.*

CORYPHA GEBANGA is one of the most useful of all the palms of South Eastern Asia. Its pith furnishes a sort of sago. In Java, thousands of boys and girls are employed in fabricating its leaves into baskets and bags : thatch, and broad brimmed hats are made of them ; fishing nets and linen shirts are woven from its fibres, and ropes from its twisted leaf-stalks ; the root is both emollient and slightly astringent ; sliced, it is used in slight diarrhœa, and Waitz says that it is a most valuable remedy for the periodical diarrhœa which in the East Indies attacks Europeans. —*Eng Cyc. page* 167. *Seeman.*

CORYPHA TALIERA, Roxb.

Tara	BENG.	Tali	MAHRT
Taliera	,,	Sri talam	SANS
Tariat	,,	Talipat	SINGH
Taliera	HIND	Sri talam	TEL

An elegant species of Bengal. The leaves are much employed for making leaf hats and leaf umbrellas, for tying the rafters of houses, as they are strong and durable. Its trunk is about 30 feet high, and as nearly as possible of equal thickness throughout. The leaves are in about 80 divisions, each 6 feet long by 4 inches broad, radiating from the point of a leaf-stalk from 5 to 10 feet long, and covered with strong pines at its edge. Roxburgh describes the spadix as decompound, issuing in the month of February from the apex of the tree and centre of the leaves, forming an immense diffuse ovate panicle of about 20 or more feet in height. The fruit is the size of a crab-apple, wrinkled, dark-olive, or greenish-yellow. The leaves are used by the natives of India to write upon with steel styles ; it is known as the book palm, and is not unfrequent in the neighbourhood of religious edifices in the Tenasserim Provinces. *Voigt. Eng. Cyc., page* 167. *Drs. Mason. Roxb.* ii. 174.

CORYPHA UMBRACULIFERA, Linn.

Tali	BENG.	Kodap ana	MALEAL.
Pæ	BURM.	Konda panna maram	TEL.
Fan palm	ENG.	Sidalam	
Talipat palm			

The Talipat palm of the Moluccas and Ceylon, is similar in appearance to, but its leaves are not so round as those of, the taliera, the divisions in the centre being shorter than those at the sides. It has a stem 60 or 70 feet high, crowned with enormous fan shaped leaves forming a head forty feet in diameter, each leaf with 40 or 50 pairs of segments. These fronds when dried are very strong and are used for hats and umbrellas. The petiole is 7 feet long and the blade 6 feet long and 13 feet broad. Fans of enormous size are manufactured from this plant in Ceylon; the bole of this palm is wholly pith which furnishes a sort of flour from which bread is made; the leaves make excellent thatch, and are also used for writing on, like those of the C. taliera. Griffith met with trees in flower at Mergui, which he thought belonged to this species, but not having access to a complete copy of Martius' Palm, he could not speak with certainty ; and Dr. Mason saw trees in Tavoy which he regarded as probably talipat palms. The dark coloured roundish seeds of these trees are used as beads by the Tader or Dasari mendicants. C. umbraculifera, is common in Ceylon, and is found also on the Malabar Coast; the dried leaf is very strong and limber—and, according to Knox, "most wonderfully made for men's convenience to carry along with them; for though this leaf be thus broad enough to cover fifteen or twenty men when it is open, yet it will fold close like a lady's fan, and then it is no bigger than a man's arm ; it is wonderfully light." "This tree is within a pith only ; they beat it in mortars to flour, and bake cakes of it, which taste much like to wheaten bread ; it serves them instead of corn before their harvest is ripe." And in Ceylon, umbrellas made of its leaf are so borne before the chiefs and nobles.—*Knox's Ceylon, quoted in Royle's Fib. Pl. Seeman, Eng. Cyc. page* 176. *Ains. Mat. Med. p.* 143, *Drs. Mason. Roxb.* ii. 177. *Voigt.*

CORYPHA UTAN. Lam.

Taliera sylvetris	*Bl.*	Lontarus sylvestris *Rumph.*

A palm of the Moluccas.

CORYPHÆNA. LINNÆUS. A genus of fishes belonging to the section Acanthopterygii, family Scombridæ, and fifth group Coryphænina. There are 9 genera in the group, one of them Coryphænina, in which there are six species.

CORYPHÆNA HIPPURIS. LINN. The Dolphin or Dorado, is often confused with the Delphinus or Porpess, from its bearing the same name. Its colours when swimming are very lively and tail of a golden yellow. It is good for eating—*Bennett.*

CORYPHODON BLUMENBACHII, the Rat snake of Ceylon, is almost domesticated of honey, and given in doses of two or three tea spoonfuls. The species are found in hedges, thickets, on the banks of rivers, and about watercourses, in the East and West Indies, and in America within the tropics. Mucuna urens and M. pruriens usually furnish the substance; but that from M. monosperma, called by the Telinga, Enooga dola Gunda, or Elephant's Scratch-Wort, is said to exceed the others in the irritating burning property of its hairs. Dr. Roxburgh states that M. pruriens was one of the plants formerly used in India to poison wells; but it is less hurtful than was supposed.—*Eng. Cyc. p.* 17

COWITCH. See Cowhage.

COWLA. HIND. Citrus aurantium.

COWRIE. ENG. GUZ. HIND.

Wuda	AR.	Khar-Mahra	PERS.
Beya	BENG.	Pingo	SINGH.
Kauris	DUT. GER.	Bucios Zimbos	SP.
Coris, Cauris, Bouges	FR.	Kavadi	TAM.
Cori, Porcellanne	IT.	Gavvallu	TEL.
Beya a,	JAV. MALAY. SANS.		

Are small, white, or yellow, glossy shells, of the genus Cypræa, found in abundance on the shores of the Laccadive and Maldive Islands, African Coast, Zanzibar, and the Sulu islands, &c. There are many species; the Cypræa moneta pass current as coin in payment of fractional parts of a pice in India and some parts of Africa. They are brought to Bombay in large quantities from the above named places in exchange for rice, and are re-exported to Britain, where they are used in inlaying, in ornamenting toys, work-boxes, &c, and in the manufacture of the superior kinds of porcelain-ware; they were, during the slave trade, exported from Bombay to Africa. The Cowrie is found in the Eastern Archipelago, but in considerable quantity only on the shores of the Sula group of islands; but seems never to have been used for money among the Indian islanders, as it has immemorially been by the hindus. The Malay and Javanese name, however, is Sanscrit, beya, and is one of the synonyms which express duty, impost, or tolls. In the currency of India, four Cowries make a ganda,—20 ganda = a pan, and 5 pan = one anna. In A. D. 1740, a Rupee exchanged for 2,400 cowries; in 1756 for 2,560 cowries; and in 1870, in Madras, as many as 5,760 cowries were obtainable for one rupee. The Persian name, Khur-mohra, means literally a jackass's or mule's shell, because mules are ornamented in that country with trappings of shells, as a gosain's bullock is in India. In Arabic it is called Wuda, which Ibn Batuta says is carried from the Maldive Islands to Bengal, where it is used as coin. The Kamoos add that a split or broken shell is suspended from the neck to avert the evil eye, and this is still done in India. Among European nations, excepting the British, these shells are known by the name Porcelli, Porcellian, Porcellanen, and Porcelaine, on account of the fancied resemblance of their shape to that of the back of a little pig, whence arose the term for the Chinese "Porcelain," of which the glaze, or varnish, is similar to that of the cowrie. Liverpool imported as under:

1851,....1704 cwt. 1854,...90 cwt.
1852,....2793 and
1853,...1680 1855,...311

Two commercial varieties are known, the "live cowry," and the "dead cowry.—*Morrison's Compendious Description. Crawfurd's Dictionary, p.* 117. See Cypræidæ, Silver Coinage.

COWRI LUBAN. HIND. Benjamin.

COYA, properly Goia maram, TAM. Psidium pyriferum.

COW-TREE, a plant belonging to the natural order *Urticaceæ*, and apparently to the genus *Brosimum*. When wounded, a milky nutritious juice is discharged in such abundance as to render it an important object to the poor natives in whose country it grows. It is described by Humboldt as being peculiar to the Codilleras of the coast of Caracas, particularly from Barbula to the lake of Maracaybo, near the village of San Mateo, and in Caucagua, three days' journey east of Caracas. In these places it bears the name of Palo de Vaca, or Arbol de Leche, and forms a fine tree resembling the Star-Apple of the West Indies. The Kiriaghuna plant of Ceylon Gymnema lactiferum, is a Cow-plant, notwithstanding it belongs to the Asclepiadaceous Order, which is acrid and dangerous. It is impossible to say what is the cause of their harmlessness; but it is capable of being explained.—*Eng. Cyc. page* 178.

CRAB.

Khirchung	AR.	Kapiting	MALAY.
Durya-ka-kekra	DUK.	Punjpaiyeh	PERS.
Kenkra	HIND.	Kaddal Nandu	TAM.
Cancer	LAT.	Samuddrapu	TEL.
Katam	MALAY.	Nandiakaia	„

The crab is one of the signs of the zodiac. There are representations of crabs on slabs of the Konyunjik Gallery, in the British Museum, showing that the Assyrians must have been familiar with them. Athenæus, in some comments on the "Miser" of Theoghetus, says, "the tastes of the crab is one which many people have been very much devoted to, as may be shown by passages in different comedies." The crab is figured on many extremely ancient eastern coins, but for what purpose it was there represented, numismatists are not agreed. In books on natural history written in the middle ages, crabs are frequently spoken of, as well as very grotesquely represented. In China, a traveller says, when our party of six had seated themselves at the centre table, my attention was attracted by a covered dish, something unusual at a Chinese meal. On a signal, the cover was removed, and presently the face of the table was covered with juvenile crabs, which made their exodus from the dish with all possible rapidity. The crablets had been thrown into a plate of vinegar, just as the company sat down; such an immersion making them more brisk and lively than usual. But the sprightly sport of the infant crabs was soon checked by each guest seizing what he could, and swallowing the whole morsel without ceremony. Many observations have been made by naturalists since the time of Reaumur, as regards the crab during its periodical moultings. It escapes from its shell a soft harmless creature, incapable of exertion or resistance, and would become an easy prey to any of the devourers so common in the sea, were it not for a curious and wonderful display of instinct on the part of those of its brethren better protected than itself. As soon as the denudation is complete, a stout specimen of the same species steps forward and defends it and takes care of it to the best of its ability until a new shelly case grow, and it is enabled again to protect itself, and present a strong back to its foe. When the species are young, the change of shell probably occurs oftener than once a year, indeed some writers say it occurs once or twice a month, and there is most likely a time when the change stops altogether and the animal may be considered as full-grown. If this sentinel be discovered an removed, another will be found to have take its place after the following tide and thi will be repeated many times in sucession.

The stories of crabs and other crustacea casting away their limbs when alarmed or frightened, as on the occasion of a thunder-storm or on the firing of a cannon, are considered to be quite authentic. When a claw has sustained any injury, it is cast off by the animal, and a new one in due time takes its place. The migratory landcrab is one of the greatest curiosities of the crustacean family. It is a native of warm climates, and is plentiful in the Bahamas and other islands, living in the mountains, in the interstices of rocks, in the clefts of trees, and in holes bored in the sand. A curious little crab of the Malacca Straits, has been named by Mr. Bate, Sphærapœia Collingwoodii, because of its taking in sand to eliminate its food, and ejecting the sand in the form of a pill. They are gregarious. The Phyllosoma are styled glass crabs. The Gelasimi land crabs, of the East and West Indies, bore holes for themselves in the black soil of the coasts. One of their claws is much larger than the other, and, when running, they carry it aloft. The nimble little calling crabs of Ceylon, Gelasimus tetragonum, G. annulipes and G. Dussumieri, *Edw*, have an enormous hand, often larger than the rest of the body, which, as they scamper over the sands, they carry aloft. The Ocypode ceratopthalmus of Ceylon, burrows in the dry soil, jerking the sand to the distance of seven feet. The painted crabs are the crabes peints, "also" crabes violets, of the French. Grapsus strigosus, *Herbst*, is distinguished by dark red marks on a yellow ground, they are found on the reef o the south of Colombo harbour. Gecarcinus arnifex occurs near Pondicherry, Egeria indica inhabits the Indian seas and has a great resemblance to Inachus scorpio. Paddling Crabs, Neptunus pelagicus, *Linn.* and N. sanguinolentus, *Herbst*, have their hind pair of legs terminated by flattened plates to assist them in swimming. Crab Larvæ are called Zoeæ.—*Ains. Mat. Med. p.* 12. *Sir J. E. Tennent's Ceylon* 477. *Collingwood's Travels of a Naturalist. Eng. Cyc.* See Crustaceæ.

CRACKERS, &c. The largest proportion of Chinese fire-crackers go to the United States; some are shipped to India and South America. They are made up in strings, and then in papers, and lastly in boxes, five of which are estimated to weigh one pecul. The market of Canton is chiefly supplied with fireworks from Fatshan.—*Compendious Descrip.*

CRACTICUS CHALYBEUS. See Chalybæus paradisæus.

CRAIE. Fr. Chalk.

CRAMBE MARITIMA. Linn. Sea Kale, Colewort.

CRAMBU, Tam. Cloves.

CRAN DE BRETAGNE. Fr. Horse Radish.

CRANE. Several eminent naturalists ignore the great differences between 'Storks' and 'Cranes,' though they differ in their appearance, habits, anatomy, modes of breeding, and everything, except that both happen to be long legged birds. They do so by designating the Hurgila or 'Adjutant', 'Leptoptilus argala' "the gigantic Crane." The ordinary Indian Cranes, Grus antigone, Gr. cinerea, Gr. virgo, and Gr. leucogeranos, occur rarely in the North West Provinces. The words Crane, Geranos and Grus, and the Hindustani names of the three common Indian species, Saras, Karranch, and Kakarra, all have reference to the loud trumpeting of these birds, which have a curious internal conformation resembling that of the Trumpeter Swans; whereas the Storks are voiceless birds, having actually no vocal muscles, and can make no sound but by clattering their mandibles together, which they do pretty loudly. The ridge or keel of the breast-bone, common to all birds that fly, is, in the Cranes, belonging to the restricted genus Grus, and in the Trumpeter Swans, expanded so as to form a cavity, which the wind pipe is prolonged to enter and reproceed from, after describing a vertical convolution therein. Mr. Yarrell's figure of this curious structure, as it exists in the Hooper Swan 'Cygnus musicus' is, in a general way, illustrative of it ; as observed in the buccinator, the trachea even performs a second vertical convolution, while in the wild Swan of North America (C. americana,) and in the nearly affined Bewick's Swan (C. Bewickii) it is prolonged to form a horizontal loop in the body of the sternum, posterior to the vertical convolution within the keel,—that is, in general,—for several of Bewick's Swans do not differ in this respect from the Hooper Swan, although to all appearance of full age and development. In a newly hatched Hooper Swan examined, not even an indication of the peculiar structure described could be detected : nor does it occur in the two species of Crowned Crane (Balearica) nor in the Mute Swans (Cygnus olor, C. immutabilis, C. atratus, C. nigricollis), nor probably in the C. coscoroba of South America ; but the Crowned Cranes exhibit one curious anomaly in the organ of voice, which is that the long tendinous muscles,the office of which is to contract the windpipe, and which are known as the sterno-tracheales, from their ordinary mode of attachment, are not fixed, as usual, at their lower extremities to the sides of the breastbone, but to the middle of the first pair of ribs ! The sterno-tracheal muscles are wanting to the ' Adjutant' and most other Storks, and in a very few other birds, such as the Condors (Sarcorhamphus) of the Vulture family ; indeed the Vultures generally are among the most silent of the feathered creation, emitting no sound beyond a feeble cackling and snorting in their eagerness over their prey. In Australia the term ' Crane' is applied to the Egrets or white Paddy-birds, as they are called in India ; while in the Malay countries the so-called Paddy bird' is a Finch ; and the real Crane of Australia is known as the ' Native Companion.'

Among the grallatores or waders, some cranes and storks, four-fifths of the ducks and the great majority of the scolopacidæ breed in the north and come to India in the cold season. There are four species of cranes in India, all of them principally or solely winter visitants.

Of the species more or less diffused over India while in their winter quarters, two belong to the division termed Antigone, one to restricted Grus, and one to Anthropoides of Blyth.

1. Antigone torquata ; Grus antigone of Linnæus ; Grus torquata, Viellot, the Saras, a noble bird, is the largest of the whole tribe. During the breeding season it has a pure white collar below the crimson papillose naked portion of the neck, whence the name torquatus. It is mostly seen in pairs ; a few of which breed in India in extensive jhils, but the great majority cross the Himalaya for that purpose.

2. A. leucogeranos ; Grus leucogeranos of Pallas, is the beautiful large White Crane of Northern Asia, with black wing-primaries, and crimson naked face. A few stray pairs have been observed from time to time south of the Himalaya, in the Upper Provinces of Hindustan ; and Burnes figured it from the vicinity of Kabul. instances of its occurrence within the confines of India are worthy of special record. Mountaineer once or twice indicated this fine bird in his narratives of trans-Himalayan peregrinations.

The other Cranes have shorter and slate-colored legs, and less (or in one instance not any) naked skin about the face.

3. Grus cinerea, L. ; C. vulgaris, Pallas. The Kulung or Karrunch, or European Crane : common to Asia and N. Africa. Visits India in great flocks, which wholly disappear in the breeding season.

4. Gr. (or Anthropoides) virgo, L. The Kakarra, or ' Demoiselle ;' common to Asia and North Africa ; is only known in India during the cold weather ; but it reaches further southward. It is the smallest of the cranes, and certainly one of the most elegant of this particularly graceful group ; the only one with the head fully feathered, and it is adorned with beautiful white neck-tufts, and with lengthened and drooping tertiaries, and a bright crimson eye. Highly gregarious, the flocks are sometimes immense.

All of the Cranes are easily tamed and soon become reconciled to captivity ; and they are very ornamental birds to keep. They have a curious and peculiar habit of skipping about at times, attitudinizing or dancing, and now and then emitting their loud cries. In the wild state they do much damage to the crops from their numbers ; and repair during the heat of the day to sand-flats in rivers, or to other extensive waters, returning to feed morning and afternoon, at regular hours. They fly in V-like flocks, like Wild Geese. The young, commonly two in number, follow the mother soon after exclusion, unlike those of the Stork and Heron tribe, with which the Cranes have little in common. The Marabow feathers, are the under tail coverts of the

Leptoptilus argala, and C. marabow; the former, the adjutant-bird of tropical India, furnishes the best; the latter inhabits Africa and Asia; both birds are very large, being sometimes six feet high.—*Z. in Indian Fields' Simmond. Com. Dict.* See Birds, Cygnus; Egret; Stork.

CRANGANORE, on the Malabar Coast, in lat. 10° 12′ N., is built on the Cranganore or Aycotta River. Cranganore seems to have been one of the most ancient capitals of Malabar, and in some of the ancient copper deeds appears to be called Muyiri-Kodu, which a writer in the Madras Journal indicates as perhaps identifying it with the classical Muziris. (?)—*Horsburgh. Yule Cathay. II. p.* 373.

CRANGONIDÆ, a family of *Crustacea* belonging to the division *Decapoda Macroura.* The type of the family is the common shrimp, *Crangon vulgaris,* and no other genera are included in it. The Common Shrimp has the Carapace and abdomen almost entirely smooth, with the exception of one small median spine on the stomachal region.—*Eng. Cyc. p.* 188. See Crustaceæ.

CRANGON VULGARIS. The Common Shrimp. See Crangonidæ.

CRANIA. A genus of molluscs.

CRANI. An English copyist or clerk in a public Office, generally of mixed European and Native descent. The origin of the name has been disputed, and is, it is believed, utterly unknown. It may probably be a corruption of some Portuguese word, or it may be a mispronunciation of Carana, by which the Kayet'h (Cayast' ha,) or writing tribe, is designated in Bengal; and as most native writers in Public Offices are of the Carana caste, it is not unlikely that by merely extending its signification, the same word have been used to designate English writers. The word from being utterly harmless in its application, has begun of late years to be considered decidedly dyslogistic, (to use an expressive word coined by Bentham) and is consequently avoided by all officials of good feeling, for fear of giving offence. There is no reason to suppose that in India Kayet' hs, are now ever called Khwaja, though that word is in common use for other classes. In mahomedan countries, however, the term khwaja is still applied to writers and teachers. Dr. Shaw says of the Moors in Barbary, "The Hojas suspend their inkhorns in their girdles," (p. 227) and Lady Montagu says, "The monastery is now belonging to a Hojia, or school master."—*Letters p.* 176. *Elliot, Supplement.*

CRANTI-PATA-GATI. See Yoga.

CRAPE.

Crepe	Fr.	Sopillo	It.
Flohr	Ger.	Sendal	Port.
Kraus flohr	„	Flior	Rus.
Espumilla	It.	Crespon	Sp.

A light silk manufacture.—*McCulloch's Commercial Dictionary, p.* 450. *Faulkner.*

CRASSATELLA. A genus of molluscs.

CRASSINA, a genus of molluscs.

CRASSOCEPHALUM SONCHIFOLIUM. Less. Syn. of Emilia sonchifolia.

CRATÆGUS, a genus of plants belonging to the natural order Rosaceæ and the sub-order *Pomeæ.* C. crenulata occurs in the Himalaya and C. glabra, *Thunb,* in Japan. —*Engl. Cyc. p.* 190. *Voigt.*

CRATÆGUS CRENULATA. Roxb.

Indian Pyracantha.	Eng.	White thorn.	Eng.
		Gengaru.	Punjabi.

This is a plant of Nepal and Kamaon, also in the East of the Punjab, and found in the Sutlej valley between Rampur and Sungnam at an elevation of 3,000 to 7,000 feet. It is shrubby, with large white flowers: wood used for staves, &c.—*Drs. Cleghorn Punjab Report, p.* 64. *J. L. Stewart Punjab Plants.*

CRATÆGUS OXYACANTHA. Bansinjli. Hind. A plant of Kagham.

CRATÆVA, a genus of plants belonging to the natural order Capparidaceæ. The Ægle marmelos (Bilva or Mahura,) formerly considered a species of this genus, is now referred to the order Aurantiaceæ, C. Roxburghii and C. nurvala grow in India. The bark of the root of C. gynandra, a native of the West Indies, is said to blister like cantharides.—*Eng. Cyc. Voigt, Dr. O'Shaughnessy.*

CRATÆVA INERMIS. Linn. Syn. of Cratæva nurvala, Ham.

CRATÆVA MARMELOS. Linn. Syn. of Ægle marmelos, (Bilva or Mahura), formerly considered a species of this genus, is now referred to the order Aurantiaceæ, and called Ægle marmelos.—*O'Shaughnessy, p.* 296.

CRATÆVA RELIGIOSA, Syn. of Ægle marmelos.

CRATÆVA NURVALA, *Ham.*

Cratæva tapia	Burm.	Nir vala.	Maleal.
Tapia.	Hind.	Mavalingum.	Tam.
Birmi.	,,	Maridu.	Tel.

A small tree, 15 to 20 feet high, which grows in Malabar and Mysore.—*Voigt.*

CRATÆVA, Species ? ? Boroana, Uria.

A tree of Ganjam and Gumsur, which has not been specifically determined. Its extreme height is 40 feet, circumference 5 feet height from the ground to the intersection of the first branch 9 feet. It is tolerably common and burnt for firewood. The bark is used medicinally for wounds.—*Captain Macdonald.*

CRATÆVA ROXBURGHII, *B. Rr.*; *W. & A.*

Cratæva tapia,	*Vahl.*	Capparis trifoliata,	*Roxb.*
„ odora,	*Ham.*		

Tikto shak.	BENG.	Vaiana.	SANS.
Ka-dat.	BURM.	Narvala.	TAM.
Narvala.	CAN.	Mavilinga maram.	„
Birmi-ki-jhar.	DUK.	Tella ulimara	TEL.
3 leaved Caper tree.	ENG.	Tella ulimidi.	„
		Ulimidi.	
Garlic pear.	ENG.	Uiimidi.	„
Kurwan.	MAHR.	Urumuti.	„
Koomla	„	Usik manu.	„
Tapia.	SANS.		

A tree of both the Indian peninsulas, of the Circars, and growing in Bengal, at Saharunpore. Wood very hard. The native dhol is often made of it, and it is used for many common purposes. Dr. Gibson says the wood is white and in use by the turners, that it is not a common tree on the Bombay side, and he had not seen it in the forests. The juice and a decoction of its astringent bark are given in intermittent fever and typhus. The bark macerated in water and mixed with ginger, long pepper, milk and gingelly oil, is applied as a liniment for drying up sores. An infusion of the bark is also given in flatulency.—*Flor. Andh. Drs. Voigt, Ainslie, p. 89. Wight and Gibson, Useful Plants, Cat. Ex.* 1862.

CRATÆVA TAPIA. BURM. Syn. of Cratæva nurvala, *Ham.*

CRATEROPUS. A genus of birds of which C. Jardinii, C. leucocephalus, C. plebeius, and C. rubiginosus, occur in India.

CRATERUS. See Kelat, p. 488.

CRAWFURD, John F. R. S., a medical officer of the East India Company's army. He entered the service in 1803, retired from it in 1827, and died in 1868. After serving about Delhi and Agra, in 1808, he went to Penang, and in 1811, he accompanied Lord Minto in his expedition to the conquest of Java. He was then appointed to a native court, and in 1817 returned to Britain, when in 1820, he published his History of the Indian Archipelago. He returned to India in 1824, and was sent by the marquis of Hastings, then Governor General, on a diplomatic mission to Siam and Cochin-China. In 1823 Mr. Adam, then Governor General, on the retirement of Sir Stamford Raffles, appointed him Governor of Singapore, where he remained for three years and returned to Bengal. In 1826, Lord Amherst appointed him Commissioner in Pegu, and on the restoration of peace, sent him as Envoy to the Burmese court. In 1827, he returned finally to Britain, and in 1828, published his embassy to Siam and Cochin-China, and in 1829, an account of his mission to Burmah. Up to the time of his death, he continued to put forth publications relating to further India,—in 1852 a grammar and dictionary of the Malay Languages; in 1856 a dictionary of the Malay Archipelago, and he took part in all the discussions of the learned at the Ethnological and other Societies. Author of Embassy to Ava, in 1827. Lond. 1829.—History of the Indian Archipelago, Edin. 1820, 3 vols.—Researches in India. Lond. 1817, 2 vols.—Embassy to Siam. Grammar and Dictionary of the Malay Language. 2 vols. 8vo. Lond. 1851. Dictionary of the Indian Archipelago. Lond. 1857.

CRAYFISH. See Crustacea.

CRAYON. A compound of shell-lac, naptha, and some colouring matter, used for drawing.—*Faulkner.*

CRAYONS NOIRS. FR. Blacklead pencils.

CREAT. DUK. Bitter plants, species of Exacum, Ophelia, Andrographis paniculata, See Chiretta.

CREATE. FR. Chiretta.

CREMNOBATES, a genus of molluscs.

CREED. Mahomedans distinguish between a creed and a sectarian faith: Din is a creed, and Mazhab a faith.

CREEK. Kyun gyee. BURM.

CREMONA, one of the musical instruments of the Burmese.

CRENATULA, a genus of molluscs.

CREPE. FR. Crape.

CREPIDULA, a genus of molluscs.

CRESPON. SP. Crape.

CRESCENT. This is used by the mahomedan rulers of Turkey and of Hyderabad in the Dekhan as a figure on their standards. The crescent is worn by the god Siva and by his consort Parbati.

CRESS, American or Belleisle, has a harsh flavour, but being of a more robust nature than the garden cress, is easier cultivated on the plains of India. It is raised from seed, the young leaves cut when young are used for salads; requires plenty of water.—*Jaffrey.*

CRESS, Garden, Lepidum sativum.

Reshad	AR.	Chunser	GUZ. HIND.
Halim (the seed) GUZ.	BENG. HIND.	Loot putiah (the leaves)	HIND.
Cresson	FR.	Tureh-tezak	PERS.

The leaves are gently stimulant and diuretic; as a salad, they are wholesome and palatable and serviceable in scorbutic diseases. Cress should be sown thick in very narrow drills, about one inch deep and a few inches apart. It requires to be well watered and is in season all the year round. It should be cut for use when two inches high.—*Riddell, Jaffrey.*

CRESSON. FR. Garden cress.

CRESS SEED.

Hurif AR. BENG. GUZ, HIND.
Rohitasarasbupa SANS.

Aliveri, TAM.
Saliveri ,,
Adala Vittilu TEL.

Cress seed is of a reddish colour and agreeable warm taste and is used by native practitioners as a gentle stimulant, also as a warm aperient when bruised and mixed with lime juice. The seeds are procurable in most Indian bazars, *Ainslie.*

CRESS OIL. See Oils.

CRESTED COCKS-COMB. Celosia cristata.

CRESTLESS PORCUPINE. See Porcupine. Mammalia.

CRETA. IT. LAT. Chalk, also Calcis Carbonas. LAT.

CREX PRATENSIS, the Landrail of Europe, Asia, N. Africa, is common in Afghanistan, rare in the N. W. of India

CREYAT. GUZ. and HIND., also Creyat root. ANGLO-HIND. Chiretta.

CRIM TARTARY, see Komerkolli.

CRINUM, a genus of plants belonging to the nat. ord. Amyrillaceæ. About 33 species are known, and of the crosses or hybrid varieties, about thirty more.

amabile
americanum
amœnum
asiaticum
augustum
australe
australisicum
brachyandrum
brevilimbum
broussonetii
campanulatum
capense
commelini
cruentum
defixum
distichum
ensifolium
erubescens
erythrophyllum
flaxidum
humile
loddigesianum
longiflorum
mauritianum
ornatum
petiolatum
pratense
procerum
revolutum
rigidum
scabrum
sinicum
variabile

CRINUM ASIATICUM. WILLD. HERB.

(a.) toxicarium *Herb.*
(b.) bracteatum
C. defixum *Ker.*
(c.) anomalum *Herb.*
(d.) declinatum
Bulbine Asiatica, var. *(a.)*

Sukh dursun BENG.
Nag-downa of BOMBAY.
Var(*a.*) Poison bulb ENG.
Var (*a.*) Burra Kanoor HIND.
Beluṭa polatali MALEAL.
,, pota ,, ,,
Vishamandala SANS.

Maha tobaleo SINGH.
Visha Munghe elle TAM.
Visha veduraku ; TEL.
Vesara, vesura ; ,,
Visha mungali ; ,,
Lakshmi narayana-chettu ,,

Common in gardens and groves in lower Bengal and in the Concans, cultivated as a lily in Ajmir gardens ; the flowers are fragrant and ornamental. The Bengali name means enterview of ease. The root of the variety toxicarium is a good substitute for squill. The succulent leaves of this plant are about two inches broad and two or three feet long. The natives bruise and mix them with a little warm castor oil, and consider them extremely useful for repelling whitlows, and other inflammations, on the ends of the fingers and toes ; the juice of the leaves is applied to the ear opening in ear-ache ; its juice is emetic, but very irregular in its action. From two to four drams of recent bulbs are mild emetic, and are used in Hindustan for the purpose of producing vomiting after poison has been taken, especially that of the Antiaris.

The syrup is nauseant and emetic for children. Dose, a desert spoonful repeated as required. An infusion is a mild and certain emetic. In doses of two drachms, given every twenty minutes, this solution occasions nausea and perspiration. It does not cause griping, purging, or any other distressing symptoms.—*Beng. Phar. p.* 301. 411. *Genl. Med. Top. p.* 138. *O'Shaughnessy, page* 655. *Ainslie's Mat. Med. p.* 301. *Eng. Cyc. p.* 195.

CRINUM DEFIXUM. BOT. MAG. Syn. of Crinum asiaticum, *Willd.*

CRINUM LATIFOLIUM. HERB.

Crinum ornatum, var *Herb.*
Amarillis latifolia *l'Herl.*
Jovanna-pula tali, MALEAL.

A plant common in Southern India.

CRINUM MACROCARPON. Two gigantic species of crinum are indigenous in the low grounds near the seacoast of Tenasserim, one is the large fruited crinum, and the other, which is nearly related to it, bears a large bunch of fragrant flowers.—*Mason.*

CRINUM ORNATUM. Ornamental crinum. There are no lilies in the Tenasserim country, but they are well represented by species of crinum, which Europeans usually denominate lilies. A very large petalled species, of which there are two varieties, is much cultivated in gardens, and is quite an interesting plant.—*Mason.*

CRINUM ORNATUM, Var. HERB. Syn. of Crinum latifolia, *Herb.*

CRINUM ZEYLANICUM. Singalese Crinum.

Sookh-dursun, HIND.

Grows wild in low grounds near the Chumbul river.—*Gen. Med. Top. p.* 188.

CRIOCERIDÆ. One of the Coleoptera.

CRISHNA, familiarly Kaniya, also called Heri, and written Krishn, Kisn, Kistna, and Krishna, was of the tribe of Yadu, the founder of the fifty-six tribes (Chah-pan-kula-Yadu) who obtained the universal sovereignty of India, and was descended from Yayat, the third son of Swayambhuma Manu, also called Vaivaswata-manu or the man, Lord of the earth, whose daughter Ella, *Terra*, was espoused by Budha (*Mercury*,) son of Chandra, *the Moon*, whence the Yadu are styled Chandravansi, or children of the moon. Budha was therefore worshipped as the great ancestor, *Pitriswara*, of the lunar race, and previous to the apotheosis of Crishna, was adored by all the Yadu race. The principal shrine of Budha was at Dwarica, where he still receives adoration as Budha Trivicrama, the triple energy, like the Hermes Triplex of Egypt. Krishna or Kaniya lived towards the conclusion of the brazen age, calculated to have ended about 1100 to 1200 years before Christ. He was born to the inheritance of Vrij, the country of the Suraseni, comprehending the territory round Mathura for a space of eighty miles, of which he was unjustly deprived in his infancy by his relative Kansa. From its vicinity to Delhi we may infer, either that there was no lord paramount amongst the Yadu of this period, or that Crishna's family held as vassals of Hastinapoor, then with Indraprestha or Delhi, the chief seat of Yadu power. There were two princes named Surasen amongst the immediate predecessors of Crishna: one, his grandfather,—the other eight generations anterior. Which of these was the founder of Surapoor on the Yamuna, the capital of the Yadu, we know not, but we may assume that the first gave his name to the region around Mathura, described by Arrian as the country of the Suraseni Alexander was in India probably about eight centuries after the deification of Chrishna, and it is satisfactory to find that the inquiries he instituted into the genealogy of the dynasty then ruling on the Yamuna, correspond very closely with those of the Yadu of this distant period; and combined with what Arrian says of the origin of the Pandu, it appears indisputable that the descendants of this powerful branch of the Yadu ruled on the Yamuna when the Macedonian erected the altars of Greece on the Indus. That the personage whose epithets of Krishna-Sham designate his colour as the 'Black Prince,' was in fact a distinguished chief of the Yadu, there is not a shadow of doubt; nor that, after his death, they placed him among the gods as an incarnation of Vishnu or the Sun; and from this period, we may deduce the hindu notion of their Trinity. Arrian enumerates the names of Budæus and Cradevas amongst the early ancestors of the tribe then in power, which would alone convince us that Alexander had access to the genealogies of the Puranas; for we can have little hesitation in affirming these to be Budha and Croshtdeva, ancestors of Crishna; and that "Mathoras and Clisobaras," the chief cities of the Suraseni, are the Mathura and Surpoor occupied by the descendants of Sursen. Fifty-seven descents are given, both in their sacred and profane genealogies, from Crishna to the princes supposed to have been contemporary with Vicramaditya. The Yadu Bhatti or Shamah Bhatti (the Asham Betti of Abul Fazil), draw their pedigree from Crishna or Yadunath, as do the Jhareja of Kutch. (See Krishna.) When Arungzeb proscribed the idol of Kaniya, and rendered his shrines impure throughout Vrij, Rana Raj Sing offered the heads of one hundred thousand Rajpoots for his service, and the god was conducted by the route of Kotah and Rampoora to Mewar. An omen decided the spot of his future residence. As he journeyed to gain the capital of the Seesodia, the chariot-wheel sunk deep into the earth, and defied extrication; upon which the Sookuni (Augur) interpreted the pleasure of the god, that he desired to dwell there. This circumstance occurred at an inconsiderable village called Siarh, in the fief of Dailwara, one of the sixteen nobles of Mewar. Rejoiced at this decided manifestation of favour, the chief hastened to make a perpetual gift of the village and its lands, which was speedily confirmed by the patent of the Rana.' Nat'hji (the god) was removed from his car, and in due time a temple was erected for his reception, when the hamlet of Siarh became the town of Nat' hdwara, which now contains many thousand inhabitants of all denominations, who, reposing under the especial protection of the god, are exempt from every mortal tribunal. The site is not uninteresting, nor devoid of the means of defence. To the east it is shut in by a cluster of hills, and to the westward flows the Bunas, which nearly bathes the extreme points of the hills. There are seven celebrated images of Chrishna in Rajputanah."—*Tod's Rajasthan.* See Krishna.

CRITU. See Brahmadica.

CROCHET is largely made by the children of the Christian mission schools.

CROCKATOA or KRAKATOA, about five miles long and three miles broad, is a high island. It has a conical peak in lat. 6° 8½′ S, long. 105° 25′ E, and may be considered the Fairway Mark, in entering the Straits of Sunda from the westward.—*Horsburgh.* See Pulo Bessy, Bezee.

CROCKERY. Eng. Earthenware.

CROCODILE.

Mag'r	Hind.	Buwaya	Malay.
Kumhir	,,	Sisan	Sind.
Baya	Jav.	Alli Kimbula	Singh.

Crocodilus biporcatus, *Cuv.*, and C. palustris, *Less*, are numerous in the Ceylon lagoons; and in the stomach of one there were found several small tortoises and broken bricks and gravel. They are present in all the larger rivers of the peninsula, the Kaveri, Kistna, Godaveri, and their feeders; also in the Indus and its feeders, in the Ganges and its feeders, in the Irawadi and its feeders, and in all the rivers of the Malay and Philippine Archipelago. The Malays of the peninsula reckon three species, the labu or gourd, the kutak or frog, and the tambaga, or copper crocodile. That found in Sumatra and Java is the Crocodilus biporcatus of naturalists, which is found also in Celebes and Borneo, and the Moluccas ; but in addition to this, there is another in the rivers of Borneo, formidable by its size and rapacity, partaking of the character of the biporcatus and the garial of the Ganges.—(*Crawfurd, page* 10.) Crocodiles of enormous size are seen in every creek, in every river in the Sunderbuns : these have a broad flattened muzzle, with unequal teeth of a formidable size and shape, the outline of the jaw, where the teeth are seen protruding interlocked with each other, is a waving line, giving to this ugly animal a fierce and cruel aspect. Crocodiles are eaten on the Sind frontier. The animals on the Ganges, varying in size from a span in length to 18 or 23 feet, are usually seen lying on the surface of the black mud basking in the sun ; they sleep very soundly, for a steamer may be seen going at full speed, and making the usual splash and noise, passing within ten paces of a sleeping crocodile, without disturbing its slumbers. To a casual observer they resemble mud-covered logs of wood and it is not until the large square glittering scales which are of exceeding strength and beauty when closely examined, and the elevated and doubly dentelated ridge or crest that runs along either side of the tail become visible, or are seen to glisten in the sun, that the shapeless mass is found to be a fierce, carnivorous and dangerous animal. The Gangetic garial is not seen in the Sunderbuns ; it appears to love the sweet, and comparatively speaking quieter waters of the upper rivers of India and their clean sandbanks, where they may be seen lying with their mouths wide open, but for what purpose it is difficult to divine, unless it is to get rid of numerous small red filamentous worms that cluster about their fauces. The lower jaw being prolonged backward beyond the skull, causes the upper jaw to appear moveable, which it only is when accompanied by the whole of the skull, entire head, but not otherwise. A small brown bird has been seen to alight upon the tongue of an open-mouthed crocodile and pick the worms from the throat as it lay upon a sandbank in the Ganges. It is generally believed that the snubbed nose crocodile always remains in fresh water ; but such is not the case, as they are found all along the Chittagong and Arracan coasts, never far from the shore it is true, but still in *bona fide* salt water, where they are as dangerous as sharks. In the rivers of the Delta of the Ganges, where they flow through the cultivated portions of the country, stakes are driven into the bed of the river at the watering places or ghauts, opposite to the villages, where the inhabitants may bathe in security and draw water for domestic purposes ; but even this precaution is not always sufficient to ward off the attacks of the fierce crocodiles. The crocodile being an amphibious animal, finds no difficulty, when pinched by hunger, in turning the flank of the stakes, and taking up his post within the enclosure, where he silently awaits his prey. A surveyor on the banks of the Goraee, was witness to a shocking occurrence in connection with these enclosures. A young hindu girl, about 14 years old, came to fill a pitcher with water, and had hardly put her feet into the water, when a crocodile, which had been lying in wait inside the enclosure, rushed at the poor girl, seized her in its formidable jaws, scrambled up the banks of the river, holding the shrieking, struggling girl well up in the air by the middle of her body, and plunged heavily into the river outside of the stake. A smothered scream, a ripple upon the water, a few bubbles, and the frightful scene was closed. A more daring attack by a Sunderbun crocodile than even the above, occurred a few years ago at Hoolna : a gang of ironed convicts were being inspected by the magistrate prior to their being sent off to another and a more distant jail ; the men, numbering with their guards about fifty, were drawn up in line on the raised embankment or levee of the river ; the examination was proceeding, when a crocodile rushed up the bank, seized a manacled prisoner by the legs, dragged him from the ranks, and in a moment, and that before any assistance could possibly be rendered, had plunged into the river and disappeared. A small specimen of the Crocodilus biporcatus, 6 feet long, Mr. Blyth tells us, was taken out of the Wellington tank of Calcutta. The Crocodilus palustris of Lesson, likewise occurs in India. The Peer-puker at Pundooa is a large tank, forty feet deep and 500 years old. The most remarkable tenant of this tank was a tame crocodile called Fateh Khan, which obeyed the call of a fakeer living upon the embankments. On summons, the monster shows itself upon the surface and keeps floating for several minutes. Captain von Orlich saw thirty crocodiles in a tank near Kurrachee, who at the call of the fakeer instantly crept out of the water, and like so many dogs lay in a semi-circle at the feet of their master. In Colonel Tod's time there were two crocodiles familiar to the inhabitants of Oodipoor, who came for food when called. He often exasperated them by throwing an inflated bladder which the monsters greedily received, only to dive away in angry disappointment. It was on one of these that a Rajput chief affirmed he had ventured to swim. Portions of these reptiles have been discovered fossil in the Sewalik Hills and in Burma. In India, the crocodiles are often called alligators, but the former are confined to the old and the alligator to the new world, to tropical and Southern America, where they are styled also Cayman, Jacar. The alligator closely resembles the crocodile, but has characters sufficiently distinct to have constituted a new genus.

In Egypt, the crocodile was sacred to Typhon and to the god of Papremis.

In Siam the flesh of the crocodile is sold for food in the markets and bazaars. Bishop Pallegoix (vi. p. 174) relates that un jour je vis plus de cinquante crocodiles, petits et grands attaches aux colonnes de leurs maisons. Ils les vendent la chair comme on vendrait de la chair de porc, mais a bien meilleur marche."

A native of Ceylon who resided for a long time at Caltura, told Sir J. E. Tennent, that in the rivers which flow into the sea, both there and at Bentotte, crocodiles are frequently caught in corrals, formed of stakes driven into the ground in shallow water, and so constructed, that when the reptile enters to seize the bait placed within, the aperture closes behind, and secures him. A professional "crocodile charmer" then enters, muttering a spell, and with one end of a stick pats the creature gently on the head for a time. The operator then boldly mounts astride upon its shoulders, and continues to soothe it with his one hand, whilst with the other he contrives to pass a rope under its body, by which it is at last dragged on shore. This story serves to corroborate the narrative of Mr Waterton and his alligator. The Singhalese believe that the crocodile can only move swiftly on sand or smooth clay, its feet being too tender to tread firmly on hard or stony ground. In the dry season, when the water-courses begin to fail and the tanks become exhausted, the marsh-crocodiles have occasionally been encountered in the jungle, wandering in search of water. During a severe drought in 1844, they deserted a tank near Kornegalle and traversed the town during the night, on their way to another reservoir in the suburb, two or three fell into the wells, others, in their trepidation, laid eggs in the streets, and some were found entangled in garden-fences and killed.

Generally, however, during the extreme drought, when unable to procure their ordinary food from the drying up of the water-courses, they bury themselves in the mud, and remain in a state of torpor till released by the recurrence of rains. At Arne-twoe, in the eastern province, whilst riding across the parched bed of the tank, he was shown a recess, still bearing the form and impress of a crocodile, out of which a crocodile had been seen to emerge the day before. A story was also related to him of an officer attached to the department of the Surveyor-General, who, having pitched his tent in a similar position, was disturbed during the night by feeling a movement of the earth below his bed, from which, on the following day, a crocodile emerged, making its appearance from beneath the matting. They are said to eat only living creatures, but the dead bodies in the Ganges are also said be eaten by them. Little is known as to the usual food of the crocodile. Herodotus (Euterpe viii) records the observations of the Egyptians that the crocodile of the Nile abstains from food during the four winter months, and in Java it is believed that they will eat only living creatures. A curious incident occurred some years ago on the Maguruganga stream, which flows through the Pasdun Corle, to join the Bentotte river. A man was fishing seated on the branch of a tree that overhung the water; and to shelter himself from the drizzling rain, he covered his head and shoulders with a bag, folded into a shape common with the natives. While in this attitude, a leopard sprung upon him from the jungle, but, missing its aim, seized the bag and not the man, and fell with it into the river. Here a crocodile, which had been eyeing the angler in despair, seized the leopard as it fell and sunk with it to the bottom."—*Letter from Gooneratne Moodelliar, Interpreter of the Supreme Court 10th January* 1861. *Cal. Rev. Jo. B.* A. *S. Lowe's Sarawak, p.* 83. *Tennent's Sketches of the Natural History of Ceylon, p.* 288. See Crocodile.

CROCODILIDÆ, the crocodile tribe, a family of Saurians, of the order Emydosauri, which includes also the family Gharialidæ, comprising the largest living forms of that order of reptiles. Dumeril and other naturalists distinguished the family by the appellation of Aspidiot (shielded) saurians, while many modern zoologists have considered them as forming a particular order. They form the Loricata of Merrem and Fitzinger, and the Emydosaurians of De Blainville. They may be shown as under:—

Order Emydosauri.

Fam. Crocodilidæ.

Crocodilus porosus, *Schneid* the Indian Crocodile.
" biporcatus. *C & V. Burm.* Bengal.
" trigonops, *Gray.* Syn. C. palustur.
" bombifrons, *Gray.* Ganges Western India: The large headed Indian crocodile.
" palustris, *Less.* Bengal.

Fam. Gharialidæ.

Gharialis gangetica, *Geoffr.* Ganges.

The narrow beaked crocodile of the Ganges.

The Garial of the Ganges is supposed to be the largest of the living Saurians. The measurement of the largest mentioned by Messrs. Dumeril and Bibron is given at 5 metres, 40 centimetres (17 feet 8 inches).—*Engl. Cyc. page* 205.

CROCODILUS BIPORCATUS. C. Bombifrons. C. Palustris. C. Porosus. See Crocodilidæ.

CROCUS, in the arts, a peroxide of iron, used as a polishing material.

CROCUS. LAT. Saffron.

CROCUS INDICUS. RUMPH. Syn. of Carthamus tinctorius, *Linn.*

CROCUS SATIVUS, LINN.

Zafron	AR. MALAY. PERS.	Konyer	MALAY.
Kurkum Hebrew		Karkum	PERS.
Than-wen	BURM.	Abir	,,
Saffron	ENG.	Kavera ; Kasmir jaman	SANS.
Karkom of Old Testament	,,	Kunkuma	,,
Crocus	,,	Kasmira jamma	,,
Crocus of Homer and Hippocrates	GR.	Koongoomapu	TAM.
Zaffron	HIND.	Kunkuma puvoo	TEL.
Koysur		Kohoon	SINGH.

A native of Asia Minor, naturalized in England, France, and many other parts of Europe, and cultivated in Persia and Cashmere. The saffron of commerce consist of the dried stigmata of the flower. These are picked out, dried on paper either in a kiln or by the sun. If compressed into cakes, it is accordingly called coke saffron ; hay saffron is what is usually met with, and it consists of the stigmas, each about an inch and a half long, brown red, the upper part flattened, widened, and cleft ; the lower, hair-like and yellowish. The odour is fragrant, taste bitter, but agreeable. Saffron tinges the saliva yellow. Mr. Pereira informs us that one grain of good saffron contains the stigmata and styles of nine flowers, so that one ounce of saffron is equal to 4,320 flowers. Cake saffron as now met with contains none of the real article, being prepared from the florets of the safflower (see *Carthamus*) made into a paste with gum water. Dr. Honigberger, mentions that Crocus sativus is monopolized by the Cashmerean government and that the Hakims of the Punjab use saffron in melancholy, typhus fever, enlargement of the liver, and retention of urine.—*O'Shaughnessy, p.* 654. *Honigberger, p.* 263. *Royle, p.* 688. *Birdwood. Waring.* See Saffron.

CROMLECH, is a word applied by the British to widely different structures. Its true meaning is a circle of uprightstones, like the "hurlers" and "nine maidens" in Cornwall. The cromlech of the British antiquarian is the same as the Welsh and English "quoit," such as Arthurs quoit or coetan, near Criccieth ; Lanyon quoit and chun quoit and others in Cornwall Stanton Drew quoit in Somersetshire ; the Kitts Koty or quoit, near Maidstone and the Coit-y-enroc in Guernsey, all of them circles of upright stones. Professor Sven Nilsson (*On the Stone Age, p.* 159.) defines the English cromlech as synonymous to the French dolmen, the Scandinavian dös and the dyss of Denmark, consisting of one large block of stone supported by some three to five stones arranged in a ring and intended to contain one corpse only, several of these dorsar being sometimes enclosed in circles of raised stones. Following, however, the nomenclature given by the late Dr. Lukis, we cannot be far wrong in assigning the word cromlech to all elaborate megalithic structures of one or more chambers, in which category the passage graves may be included.

The Dolmen (Dola table, moen a stone), is as its name implies, of different structure. The cromlechs of Jersey and the adjacent islands partake of the character of the French Grottes aux Fees, the fairys grotto, as well as the Gangrifter, the gallery tombs of the Swedes, the jettestuer or chambered tumuli of the Danes and the German, Hunenbetten.

In China, the chambered tumuli associated with megolithic avenues have attained their greatest development. The great tomb (the Ling or resting place of Yung Lo of the Ming dynasty) thirty miles from Pekin, consists of an enormous mound or earth barrow covered with trees, and surrounded by a wall a mile in circumference. In the centre of the mound is a stone chamber containing the sarcophagus in which is the corpse. This chamber or vault is approached by an arched tunnel, the entrance to which is bricked up. This entrance is approached by a paved causeway passing through numerous arches, galleries, courts and halls of sacrifice,and through a long avenue of colossal marble figures sixteen pairs of wolves, kelins, lions, horses, camels, elephants, and twelvepairs of warriors,priestsand civil officers.

The tombs of the Hova race of Madagascar consist of stone vaults, made of immense slabs of stone, flat inside, forming a subterranean grotto. They also erect stone pillars similar to the menhir. The supposed aborigines of Madagascar were the Vasimba, whose tombs are small tumuli or cairns, surmounted by an upright stone pillar. The "Celt" chipping or hewing stone, the thunderbolt, the coin de foudre, laierre de tonerre, the Til hugger steen of the Germans, may have been the moen sourons of Brittany, a hatchet, axe, chisel, adze or wedge. They are numerous in the Channel

Islands. Those found in the Carnatic are of fibrolite, those of the Swiss lakes are of jade. The Cromlech or tri-lithic altar, in the centre of all Druidic monuments, is supposed by Tod to be a" torun" or triumphal arch, sacred to the sun-god Belenus.—*Lt. Oliver, R. A. F. R. G. S. Quarterly Journ. of Science, April,* 1870. See Cairn.

CRORE, OR CROR. Ten millions ; a crore of rupees is equal to one million sterling. The names of the higher numbers are thus given in the "Zabdat-ool-Quanin." 100 crore =1 Urub. 100 Urub=1 K,hurub. 100 Kh, urub=1 Neel. 100 Neel=1 Pudum. 100 Pudum=1 Sunk, h. 100 Sunk, h=1 Uld. 100 Uld=1 Unk. 100 Unk=1 Pudha.—*Elliot.*

CRORI. When Akbar introduced his revenue reforms, he appointed a Collector for every Crore of Dams, (i. e., 2,50,000 Rs.) whom he designated by the title of Amil or Amilguzar, and to that functionary the instructions are directed in the Ayeen-i-Akberee ; the designation of Crori being of subsequent introduction.—*Elliot.*

CROSS. The symbol of the circle and the cross under every variety of circumstance, in Egypt, Africa, Britain, China, Scandinavia, and America, in every age, by every people, from the dawn of secular history to the present hour, has been held by all in the same superstitious veneration, been honoured with the same distinguishing rites, and has always expressed the same doctrine or mystery. Divine potentiality was sometimes indicated by two or more sceptres arranged at right angles or quadrinally, with the nave of a wheel, or a simple circle, or six or eight round stars, at the point of intersection, with other orbs or ornaments. Osiris by the cross gave eternal life to the spirits of the just. With the cross, Thor smote the head of the great serpent, the Muysca mothers laid their children beneath a cross, trusting by that sign to secure them from evil spirits. The Cross-cake, says Sir Gardner Wilkinson, was the hieroglyph for 'civilised land,' obviously a land superior to their own, as it was indeed to all other mundane territories ; for it was that distant, traditional country of sempiternal contentment and repose, of exquisite delight and serenity, where nature unassisted by man produces all that is necessary for his sustentation ; and whose midst was crowned with a sacred and glorious eminence—the umbilicus orbis terrarum—towards which the heathen in all parts of the world and in all ages turned a wistful gaze in every act of devotion, and hoped to be admitted, or rather to be restored, at the close of this transitory scene. The Crux ansata is the earliest known form of the cross. It is commonly called the key of the Nile, because often seen on Coptic and Egyptian mountains. It was very similar to the Roman letter T with a roundlet or oval placed immediately above it, and signified hidden wisdom or the life to come. It was used by the Chaldeans, Phenicians, Mexicans and Peruvians ; doubtless it was intended to denote the solar and terrestrial spheres, and subsequently sovereigns each adopted the circle associated with it the cross, and this symbol of royalty is in use with every king of Europe. The Chakra in the hands of Brahma, Vishnu, and Siva, is a modification of it. In Egypt and China it was used to indicate a land of corn and plenty, and when divided into four equal segments, it was the symbol of the primeval abode of man, the traditional paradise of Eden. The cross, says Colonel Wilford (*As. Res.* x., p. 124) though not an object of worship amongst the buddhists is a favourite emblem and device amongst them. It is exactly the cross of the Manichees, with leaves and flowers springing from it (and fruit also it is said): It is called " the divine tree," "the tree of the gods," " the tree of life and knowledge," and productive of whatever is good and desirable, and is placed in the terrestrial paradise."

The pre-christian cross is not unfrequently associated with a tree or trees. The sign of the cross began to be used by christians in the fourth century, and is described by Lactantius as an impregnable fortress to defend those impressed with it, for such the devil cannot approach—?

CROSS ISLAND, a small island three-quarters of a mile from the shore in Bombay harbour.—*Horsburgh.*

CROSSOPUS. See Sorex.

CROSSORHINUS. See Squalidæ. Fishes.

CROSSANDRA AXILLARIS. Acanthaceæ. Axil-flowered Crossandra.

CROSS-BILLS inhabit pine forests, and are birds of remarkably vagrant habits, the Parrot Crossbill, (*Loxiap ityopsitticus*) seems to be merely a larger and more robust variety of the common crossbill, *L. curvirostra.*

CROTALARIA, a genus of plants of the order Fabaceæ, sec B. Loteæ, of which 40 species are known in India :

alata
anthylloides
argentea
arborescens
bracteata
brownei
burhia
barbata
bifaria
evolvuloides
formosa
fulva
hirta
incana
juncea
laburnifolia
lunulata
montana
Notonii
obtecta
paniculata
parviflora
prostata
pulcherrima
pulchella
purpurea
quinquefolia
ramosissima
retusa
rubiginosa
semperflorens
sagittalis
sericea
striata
speciosa
tetragona
tenuifolia
trifoliastrum
verrucosa
Wallichiana
Wightiana
uncinella

The fibres of the barks of C. burhia, C. juncea and C. retusa are largely used as cordage material. C juncea yields the Sunn of commerce : the C. tenuifolia furnishes the Jubbulpore Hemp, and C. retusa in Madras, and C. burrhia in Sind, are employed for cordage and canvas, and in fabricating coarse guuny cloth.—*Voigt. W. Ic.*

CROTALARIA ANGULOSA. LINN. syn. of Crotalaria verrucosa, *Linn.*

CROTALARIA BENGALENSIS. LINN. syn. of Crotalaria juncea, *Linn.*

CROTALARIA BURHIA. HAM. BUCH.

Sis, sissai, meini, pola	TR. IND.	Buta, Khep	SUTLEJ.
Khippi of SUTLEJ,	RAVI.	Khip, bhata, bui,	BEAS.
		Lathia, Kharsan,	HIND.

A naked-looking, bushy plant, common in all the more arid parts of the Punjab from Delhi to Trans-Indus, up to Peshawar. It is browsed by cattle. It has a very tough bark, and with exactly the smell of broom when bruised, which probably gets it the name "bui," fragrant. Ropes are in many parts made from it by the dry process (and apparently sometimes after two or three days steeping) but notably not so, in places near Delhi, where the "khip" used for this is from Orthanthera a very different plant.—*Dr. J. L. Stewart.*

CROTALARIA CÆRULIA. JACQ. syn. of Crotalaria verrucosa, *Linn.*

CROTALARIA ELEGANS. Its seeds are contained in inflated pods, which rattle when shaken. The plants grow readily in any tolerably good soil, and abound in India —*Riddell.*

CROTALARIA FENESTRATA. SIMS, syn. of Crotalaria juncea, *Linn.*

CROTALARIA JUNCEA. LINN.

C. Bengalensis	*Lam*	C. porrecta	*Wall.*
C. tenuifolia *Roxb.* iii 263		C. sericea	*Willd.*
C. fenestrata	*Sims.*		

Kudrum of	BEHAR.	Madras hemp	ENG. OF IND
Ghore-sun	BENG.	Pallungoo of	MADRAS
Maesta pat	,,	Wilaiti Sunn of	MUTTRA
Sunn	HIND.	Ambaya pata of	PURNEYA & CHANDANA.
Taag of	BOMBAY.	Sanni of	SAHARUNPORE.
Ambharee	,,	Sana	SANSC.
Dekhani Brown Hemp	,,	Kenna.	SINGH.
Hemp, Brown Hemp	,,	Wakkoo	TAM.
Pan	BURM.	Vukkoo nar	,,
Paik hsan	,,	Janapam nar	,,
Chumpat of	CUTTACK.	Shanapam	,,
Chumese of	,,	Canamboo	,,
Pulai namaji of	COIMBT.	Sunnub	,,
Hemp	ENG. OF INDIA.	Shanal	,,
Salsette hemp	,,	Sannamu	TEL.
Sunn ,,	,,		

The Crotalaria juncea is cultivated for its fibre in many parts of India, and bears several names in the districts. Its fibres make a good strong hemp for cordage, canvas, and sackcloth, twine and paper. It is sown very thickly at the beginning of the rains, so that it may grow tall and thin and in favourable soil it grows to 8 or 10 feet high. When it begins to flower, it is cut near the root, tied in large bundles, and immersed in water, putting some weight on it, generally mud, to prevent it from being carried away. After remaining immersed from four to eight days, it is withdrawn from the water, taken by handfuls, beaten on a piece of wood or stone, and washed till quite clean, and the cuticle with the leaves completely removed from the other portion of the plant. Each handful is then piled musket fashion, and left to dry. When perfectly dry, the woody portion, which has been more or less broken, is separated from the fibre by further beating and shaking. From 3 to 6 maunds of fibre are extracted from each beegah of plant. The raw material on the field, as plant, costs from two to four rupees per beegah according to quality ; and the prepared fibre costs from four to ten rupees per maund, according to strength, length, and cleanliness of fibre. The exports from Madras in the year 1850-51 were

Sunn Hemp...	cwt.	2,925
Twine from do.........................	cwt.	1,372
Gunny bags...		58,950

Drs. Voigt. Mason, M. E. J. R. Cat. Exh. 1862.

CROTALARIA LABURNIFOLIA, LINN. *Rheede, Roxb. W and* A.

C. pendula	*Bert.*	C. pedunculosa	*Desv.*

Muna	BENG.	Pedda gili gich-cha	TEL,
Chiri gili gich-cha	TEL.	Manne	,,

Grows from Ceylon to Bengal, has large bright yellow flowers.—*Voigt. Elliot.*

CROTALARIA LINIFOLIA. LINN.

C. cæspitosa, *Roxb.*

Nella giri gili gach-cha, TEL.

A native of most parts of India.—*Voigt.*

CROTALARIA OCCULTA, the Pea violet, grows very common by the road-side between Churra and the Eastern Khassia hills, and smells deliciously of violets : the English name suggests the appearance of the flower, for which and for its fragrance it is well worth cultivation.—*Hooker, Him. Jour. Vol.* II., *page* 309.

CROTALARIA PORRECTA. WALL. syn. of Crotalaria juncea, *Linn.*

CROTALARIA RETUSA. LINN.; *Roxb.*

Lupinus Cochin-Chinensis, *Lour.*

Bil-junjun	BENG.	Tandal ekoti	MALEAL
Wedge leaved crotalaria	ENG.	Potti gili gichcha	TEL.

This plant grows in the peninsula of India in Bengal, Burmah and the Moluccas, has large bright yellow flowers ; the fibres are employed for canvas and cordage.—*Voigt. Roxb.*

CROTALARIA VERRUCOSA, LINN.

C. cærulia	*Jacq.*	C. angulosa	*Lam.*
Bun-sun,	BENG. & HIND.	Alagali-ghitsa	TEL.
Pi-tandali-kotti	MALEAL.	Ghilghirinta	,,
Vutti-khillo-killupi	TAM.	Alla-gili-gich'cha	,,

Grows in Malabar and Bengal. It has bright blue and greenish white flowers. The juice of its leaves is used in medicine.—*Voigt.*

CROTALARIA SERICEA. WILLD. syn. of Crotalaria juncea, *Linn.*

CROTALARIA TENUIFOLIA, ROXB. Jubbulpore Hemp, is a native of Coromandel: perennial, ramous, straight, furrowed, hoary. Leaves linear, sericeous underneath. Stipules minute, subulate. Racemes terminal. Legumes sessile, clavate, many-seeded. In the Botanic Garden, Calcutta, it is perennial, growing to the height of nine feet, with numerous slender, furrowed, straight branches, which are again more ramous at the top. During the cool season, each twig ends in a long raceme of large, yellow flowers, and seed ripens in two months. It grows to 6 or 9 feet high, and yields the fibre known in England and Calcutta as Jubbulporo hemp, which is considered equal to Russian, and bears a heavier weight. Dr. Royle reports as under

Kind and quality of rope.	Size.	Government Proof.	Breaking weight.	
	Inches	Cwt.	Cwt.	qr.
Oiled Jubbulpore Hemp, Artillery Traces, ...	3	36	43	2
Untarred do, superior four Strand, plain laid,	3½	42	83	0
Untarred Dhunchee(Æschynomene cannabina, *Rox*),Sesbania aculeata,	3½	49	75	0
Pine-apple fibre, ...	3½	42	57	0

A good deal of the value of this plant is supposed to be the result of the climate and soil in which it is grown. About the year 1846, Mr Williams, having occasion to send to Calcutta samples of wax, oil seeds, and other materials, filled up the box with indigenous hemp to prevent breakage of the bottles. On arrival at Calcutta, the cleanness and brightness of the fibre struck the consignee, and he had it examined by one of the proprietors of the patent rope-works, who pronounced it equal to the best Russian hemp, and at once sent an order for 400 maunds of it. The trade, since then, gradually increased, and Mr. Williams afterwards sent about 6000 maunds,(about 200 tons) of this fibre to Calcutta. The plant is regularly cultivated, but the cultivation is limited. About 10 per cent. of the fibre is lost in the process of heckling, and the cost varies according to the several places in the district and seasons of the year. The price of the prepared fibre is from 3 Rs. 8 As. to 4 Rs. per maund.—*Royle's Fib.Pl. Roxb. Fl. Ind. Cal. Cat. Ex.* 1862.

CROTALIDÆ, a family of reptiles of the order Ophidia, and sub-order Serpentes Viperini, as under :—

FAM. Crotalidæ.

Trimeresurus carinatus, *Gray*. Bengal, Nicobar, Andamans; syn. T. porphyraceus, bicolar, purpureus, pureomaculatus, punicous. *Cantor*,
T. graminensis. *Shaw*. Sylhet, Burmah, Malacca.
,, trigonocephalus, *Merr.* Ceylon.
,, erythrurus. *Cantor.*
,, Andersoni. *Theob.*
,, monticola. *Gunth.* (Parias) Darjeling.
,, strigolus. *Gray*. (Parias) Neilgherries.
,, wagleri. *Schl.* syn. T. maculatus, formosus, sumatranus, subannulatus, tropidolæmus, schlegeli, *Bleeker.*
,, obscurus. *Theob.*
,, Anamallensis. *Gunth.* Anamallays.
,, mucrosquamatus. *Cantor.* Assam.
Peltopelor macrolepis. *Beddome.* Anamállays.
Calloselasma rhodostoma. *Rein.* Siam.
Halys Himalayanus. *Gunth.* Gurhwal.
,, Elliotti. *Jerdon.* Neilgherries.
Hypnale nepa. *Lour.* Ceylon.

CROTON, a genus of plants of the natural order Euphorbiaceæ, of which the following species occur in India :—

aromaticum
bicolor
drupacea
iliciodora
joufra
lævigata
lacciferum
microdenia
muricatum
oblongifolia
polyandrum
tiglium
urophylla
umbellatum

The seeds and oil of C. polyandrum and C. tiglium are purgative. A species of croton, whose roots are used by the Burmese for a cathartic, abounds in some parts of Burmah, especially on the Moulmein hills, and the Burmese describe another species of croton, common in the neighbourhood of Rangoon, and occasionally found in Tenasserim, which is a shrub three or four feet high, with similar properties.—*Mason.*

CROTON, FR. Croton Seed.

CROTON AROMATICUM. LINN.

" Wel-kappiteya" SINGH.

Abundant in the hotter parts of Ceylon.—*Thw. En. Pl. Zeyl. p.* 275.

CROTON CASCARILLA.

Cortex eleutherii.
Cascarilla bark.

This plant grows in Bahama, Saint Domingo, Brazil, and is imported from S. America, especially from Paraguay. Aromatic Peruvian bark is met with in short solid fragments. Cascarilla bark is used with decided benefit in intermittents, and in all fevers during the collapse or typhoid state.—*dose* 10 grs. to 1 dr. It is burned as a perfume.—*O'Shaugh. p.* 552-3. *Faulkner.*

CROTON HYPOLEUCUM. DALZ.

C. reticulatum, *Heyne.*

Grows in the Central Province of Ceylon, at an elevation of 2000 to 3000 feet—*Thw. En. Pl. Zeyl. p.* 276.

CROTON LACCIFERUM. LINN. *W. Ic.*

Aleurites lacciferus, *Willde.*
Croton foliis ovatis, etc.
Ricinoides aromatica arbor *Burm. Fl. Zeyl.*

Gaes-kappiteya SINGH.

A native of the East Indies, very common in Ceylon up to an elevation of 3000 feet, trunk arborescent, with rude and angular branches, and is said to furnish the finest of all the sorts of lac, of a bright red, and, also, to furnish a brilliant varnish in Ceylon. That obtained from the old trees of this species is employed by the Singhalese for medicinal and other purposes.—*Thw. En. Pl. Zeyl. p.* 275. *Eng. Cyc. p.* 212. *O'Shaughnessy, p.* 553.

CROTON MOONII. THW. A small tree of Caltura, in Ceylon.—*Thw. En. Pl. Zeyl. p.* 276.

CROTON NIGRO-VIRIDE. THW. A small tree of Rambodde, in the Central Province of Ceylon, at an elevation of 5000 feet. —*Thw. En. Pl. Zeyl. p.* 276.

CROTON OBLONGIFOLIUM. ROXB.

C. lævigatum, *Wall.*

Bhutam Kusam	SANS.	Bhutala bhairi	TEL.

A small tree not uncommon in Southern India and in Ceylon. The Telugu name means demon-driver or devil goad, sticks made of it being carried as a protection against evil spirits.—*Voigt. Elliot. Thw. En. Pl. Zeyl* 276.

CROTON OIL.

Dund also Batu	AR.	Crotonis oleum	LAT.
Kannakoh	BURM.	Bori	MALAY.
Croton Oil	ENG.	Dund	PERS.
Napala Oil	,,	Nirvalam yennai	TAM.
Jumalgote-ka-tel	HIND.	Naypalam vittilu	
Tiglii oleum	LAT.	nuna	TEL.

This oil is prepared by grinding the seeds of C. tiglium, placing the powder in bags, and pressing between plates of iron ; the oil thus expressed is allowed to stand about a fortnight, and then filtered. It is of an orange yellow colour, is soluble in alcohol, and reddens litmus paper powerfully. It is an exceedingly powerful cathartic. It has a heavy oily smell, and is very irritating to the skin. It is procurable in most Indian bazars, often adulterated with castor oil and other fixed oils. In Burmah, the seeds are administered by native doctors, and when the operation is excessive, they give the patient the juice of the sour lime, which is said to counteract the effect of the croton seeds.—*M. E. J. R. Faulkner. Mason.*

CROTON PAVANA. Ava Croton. Lindley says that there is an indigenous species at Ava, which is decandrous, while C. tiglium has fifteen stamens.—*Mason.* See Croton tiglium.

CROTON PLICATUM. VAHL. syn. of Crozophora plicata, *Ad. Juss.*

CROTON POLYANDRUM. ROXB.

Croton Roxburghii *Wall.*		Croton polyandra *Roxb.*	
Dunti	BENG.	Hakni	HIND.
Tha-dee-wa	BURM.	Konda amadum	TEL.
Hakun	HIND.		

Grows in the Circars, Bengal, and Hindustan near hills and streams in moist places. Perennial, seeds exactly like those of the castor oil plant, but much smaller. Esteemed by the natives of India to be a good purgative, one seed bruised with water being given for each evacuation desired. The Burmese cultivate this species of croton, which grows into a thick bush. It is very common also on the banks of the Jumna, where it is called Jumalghota.—*Royle. O'Sh. page* 555. *Roxb.* iii. *Voigt,* 156. *Mason.*

CROTON ROXBURGHII. WALL. syn. of Croton polyandrum, *Roxb.*

CROTON SANGUISFLUINA. The Blood Wood of Norfolk Island, is said to be of little value except for firewood, on an incision being made in the bark, a fluid exudes which is used for marking the convict's slopes, staining furniture, &c., and it is a good tonic and astringent, strongly resembling Dragon's blood (Damulukwain).—*O'Shaughnessy page* 555. *Keppel's Ind. Arch. Vol. II,* 282.

CROTON SEBIFERUM.

Sapium sebiferum, *Roxb.*	Stillingia sebifera, *Mich.*

Pippalyang, HIND.

The plant is common in gardens round Calcutta. In the Dekhan this tree is only to be met with in a few gardens. It is ornamental and bears flowers and fruit for a great part of the year together. The fruit is of a pear shape, yellow and red, which when ripe opens and displays two or three black seeds enveloped partially with a fatty-looking substance. It is this from which the Chinese extract the tallow and make into candles.—*Riddell. O'Shaughnessy Bengal Dispensatory p.* 555.

CROTON SEED.

Batu ; Dund	AR.	Dund	PERS.
Jayapala	CAN.	Nepala	SANS.
Croton	FR.	Nepalam	SINGH.
Jumalgota	GUZ.	Nervallum Cottai	TAM
Cheraken	JAV.	Naypalum Vittalu	TEL.
Bori	MALEAL.		

The seeds of C. tiglium are about the size of a small marble, of a convex shape on one side, and bluntly angular on the other, enveloped in a thin shell. Croton seeds are always procurable in the India markets.—*Faulkner,*

CROTON TIGLIUM.

Croton Jamalgota *Buch.* Tiglium klotchianum *Rheede*

Batu also Dund	AR.	Bori	MALAY.
Jypal	BENG.	Nirvala	MALEAL.
Rechuk		Kadelavanaku	,,
Kannakoh	BURM.	Dund	PERS.
Jayapala	CAN.	Jayapala	SANS.
Purging Croton	ENG.	Nepala	,,
Jamalgota	HIND.	Dunti	,,
Grana Tilli	LAT.	Nepalam	SINGH.
Tiglia	,,	Nervalam	TAM.
Liguum Moluccense	,,	Nepalam	TEL.

This small tree grows to 15 or 20 feet high in most parts of India, the Peninsula, the Concans, Assam, and in the Moluccas. Every part of the plant is purgative, but the fruit or seeds are dangerously so, and in the medicinal practice of Europe, they are never given, the oil expressed from them being alone used. In India, however, the native practitioners separate the embryo, and give it internally. The seeds yield a powerfully cathartic oil. It is prepared by grinding the seeds, placing the powder in bags, and pressing it between plates of iron. The oil is then allowed to stand fifteen days, and afterwards filtered. The residue of the expression is saturated with twice its weight of alcohol, heated on a sand bath from 120° to 140° Fahr, and the mixture pressed again ; the alcohol is distilled off, the oil allowed to settle, and filtered after a fortnight. One seer (2 lb.) of seed furnishes 11 fluid ounces of oil, six by the first process, five by the second. The oil is well known for its medicinal properties.—*Ainslie Mat.Med. Royle Mater. Med. p.* 553. *Roxb.* iii. 682, *Voigt* 186. *O'Shaughnessy. Lindley Fl. Med. p.* 181. *Jur. Rep. Ex.* 1862. *Eng. Cycp. Cal. Cat. Ex.* 1862.

CROTON TINCTORIUM. Burm. syn. of Crozophora plicata, *Ad. Juss.*

CROTON VARIEGATUM. An ornamental shrub commonly called the laurel ; the leaves are variegated and it is very commonly grown in pots. There is a willow leaf variety equally ornamental and handsome ; the plants thrive best in large pots or tubs, and are easily propagated by cuttings. The willow leaf variety thrives best in a situation shaded from the noon day sun.—*Jaffrey. Graham. Thomson's Records of General Science,* Vol. IV., p. 114.

CROW. Several species of crows inhabit the south and east of Asia, and will be found noticed under the genus Corvus. Conostoma semodius, Rasorial Crows, of the Subfamily Glaucopinæ, inhabit the northern region of Nepal and in Celebes ; and on the Malabar Coast, black and white crows occur, also occasional albinos. The crow is reckoned a bird of ill-omen in India, still Malabar females are sometimes named Kaka, the name in that dialect, as well as in Sanskrit, for the crow. The females of Malabar are, more than others, called after animals. Mani, the crocodile, is a name among them. In christian countries, Barbara, Ursula, barbarian and little bear, are not unusual. Vultures and crows are permanently resident in India ; and the crows incubate chiefly in March and April, their nests being not unfrequently exposed to the fury of the nor-westers, and destroyed by them altogether. In winter, many birds, crows, starlings, finches, larks, parrots, a few thrushes, pigeons, rock pigeons, cranes, ducks, flamingoes and pelicans, assemble in large flocks. The common crow of India is of unwonted familiarity, impudence, and matchless audacity. Mr. Sirr mentions a crow seizing bread from a toast rack, and another taking food from a dog while eating. Sir James C. Tennent mentions that, on one occasion, a nurse seated in a garden adjoining a regimental mess-room, was terrified by seeing a bloody clasp-knife drop from the air at her feet ; but the mystery was explained on learning that a crow, which had been watching a cook chopping mince-meat, had seized the moment when his head was turned to carry off the knife. He adds that one of these ingenious marauders, after vainly attitudinizing in front of a chained watch-dog, that was lazily gnawing a bone, and after fruitlessly endeavouring to divert his attention by dancing before him, with head awry and eye askance, at length flew away for a moment, and returned bringing a companion, which perched itself on a branch a few yards in the rear. The crow's grimaces were now actively renewed, but with no better success, till its confederate, poising itself on its wings, descended with the utmost velocity, striking the dog upon the spine with all the force of its strong beak. The ruse was successful ; the dog started with surprise and pain, but not quickly enough to seize his assailant, whilst the bone he had been gnawing was snatched away by the first crow the instant his head was turned. Two well-authenticated instances of the recurrence of this device came within his knowledge at Colombo, and attest the sagacity and powers of communication and combination possessed by these astute and courageous birds. The Corvus culminatus, or large black crow of India, may be constantly observed wherever there are buffaloes, perched on their backs, and engaged, in company with the small Minah, (Acridotheres tristis), in freeing them from ticks.—*Tennent's Sketches of the Natural History of Ceylon, p.* 253. *Sirr's Ceylon.* See Corvidæ, Birds.

CROWFOOT, INDIAN. Eng. syn. of Ranunculus sceleratus, *Linn.* See Ranunculaceæ.

CROWN BARK. See Cinchona.

CROW'S BEAK. Clitoria ternatea.

CROZOPHORA PLICATA, Juss ; *Roxb.*

Croton plicatum	*Vahl.*	C.tinctorium, *Burm.not L.*	
Khoodi-okra	Beng.	Linga maram	Tam.
Indian turnsol	Eng.	Linga manu	Tel.
Subali	Hind.	Linga chettu	

Common in all the south of India, in rice-fields, flowering in the cold weather. Its value in leprosy is asserted. The juice of its green leaves dye blue.—*Voigt,* 156.

CRUCIANELLA STYLOSA. A pretty

little pink coloured flower, native of mountains in Persia.—*Riddell.*

CRUCIBLES. Musa. Tel. In India, these are made by brass-smiths, &c. for their own use, of pipe clay or other suitable clay, beaten up for a considerable time on the anvil with burnt paddy husk ; being formed, they are left to dry and are then ready for use. Mr. Rohde had seen a crucible formed for melting silver, simply by spreading wet clay on a bit of rag ; which was immediately placed on the fire, which again was urged by the breath through a bamboo tube.—*Rohde MSS.*

CRUCIFERÆ. See Cheiranthus cheirii, Erysimum perowskianum, Heliophila, Schizopetalon Walkeri.

CRUDE CAMPHOR. Eng. Camphor.

CRUSADE. At the time of the first crusade, the mahomedan power was shared between those of Arab and those of Mongol origin. The Arab movement had been stayed by their defeat by Charles Martel, on the banks of the river Loire, and they had settled down in the countries which they had conquered, advancing in civilization and cultivating science. But later, the fresh converts to mahomedanism, the Seljukian Turks and Tartars, issued from Central Asia, carrying ruin in their path. Asia Minor was lost to the Greek empire, and Constantinople itself imperilled, when Peter the Hermit roused christian Europe to recover the Holy Sepulchre at Jerusalem. It was, subsequently, in 1187, lost again by the conquest of Salah-ud-din, and at the time that St. Louis of France took the cross, Chengiz Khan with his followers had so ruined the whole tract from the Caspian to the Indus, that the succeeding centuries have not sufficed to restore it. The right wing of this enormous host was bringing ruin on the Slav nations of Eastern Europe, while its left wing was menacing Baghdad and Syria. Poland and Hungary were invaded in 1258, and they had entered Bohemia and Moravia. Frederic II, in 1229, after Salah-ud-din's death, recovered the Holy City, but it was again finally lost to the Kharismian Turks, who destroyed every christian whom they found. Not long after, the christians were again defeated at the battle of Gaza, which was fought in company with Malik-Mansur, the ruler of Damascus, against the king of Egypt. St. Louis made two crusades, in the first of which he was completely defeated. The Eyubi are descendants of Salah-ud-din, the Saladin of the Crusaders. The family are known as the Hassan Keif, and occupy the district of Shirwan. In Mr. Rich's time, the bey was powerful and independent. See Acre, Kafra.

CRUSTACEA, are the Crustaces of the French, and the Krustentheire of the Germans. The common crab, the lobster, and crayfish, the common shrimp and the water-flea, may be taken as types of different sections of this family.

Cancer, is a genus of Short-Tailed Crustacea, the type of the family Canceridæ of Linnæus, and includes a large number of species of the genus Cancer ; and the term Crab, which is a translation of it, is in common parlance applied to the great bulk of the Brachyurous Crustaceans. Dr. Leach restricted the genus Cancer to the form of Cancer pagurus, *Linn*, the large eatable Crab of British coasts, which was, when he defined the genus, the only species known. For the Blood-spotted Crab of the Asiatic seas (*Cancer maculatus.* Linn. &c.), and the Coralline Crab (*Cancer corallinus.* Fabr.), Dr. Leach instituted the genus Carpilius, characterised by the existence of a single tooth on the border of the carapace and by the tridentated front ; and, for the " eleven toothed crab" (*Cancer undecimdentatus* Fabr.) Egeria is a genus of Brachyurous decapod Crustaceans established by Dr. Leach. E. Indica, in size, general form of the body and length of the feet, bears a great resemblance to Inachus scorpio ; but besides generic differences, the arms are rather short and slender. It inhabits the Indian seas. The hermit crabs are very common, and the nimble little Calling Crabs, Gelasimus tetragonon ? *Edw.* ; G. annulipes, *Edw.* ; G. Dussumieri ? *Edw.*, scamper over the moist sands, carrying aloft their enormous hand, sometimes larger than the rest of the body.

The place of the crabs amongst the crustaceæ is well defined and of the genera and eastern species are :—1 Æthra ; 15 Cancer : 4 Carpilus; 5 Zozymus ; 1 Lagostoma ; 27 Xantho ; 7 Chlorodius ; 3 Panopeus, 4 Ozius ; 4 Pseudocarcinus ; 4 Etisus ; 2 Platycarcinus ; 4 Pilumnus ; 3 Ruppellia ; 1 Pirimela ; 3 Eriphia ; Trapizia ; 1 Melia ; 1 Carcinus ; 4 Platyonichus; 1 Polybius ; 12 Portunus ; 13 Lupea ; 10 Thalamita ; 1 Podophthalmus.

CLASS—CRUSTACEA.

ORDER 1st—DECAPODES.

1st—Division Podophthalmien, Edw.

FAM. OXYRHINQUES.

Tribe—Macropodes.

Egeria arachnoides, *Edw.* Coromandel coasts.
„ herbstii, *Edws.* Asiatic seas.
„ indica, *Edws.* Indian Ocean.
Doclea ovis, *Edws.* Indian seas.
„ hybrida, *Edws.* Coromandel coast.
„ muricata, *Edws.* E, Indies.
Pisa styx, *Edws.* Mauritius.
Chorinus aries, *Edws.* Coromandel.
„ aculeata, *Edws.* Asiatic seas.
„ dumerilii, *Edws.* Vanicoro.
Paramithrax peronii, *Edws.* Indian Ocean.
„ barbicornis, *Edws.* New Holland.
gaimardii, *Edws.* New Zealand.

Micippe cristata, *Edws.* Java coasts.
,, philyra, *Edws.* Indian Ocean, Mauritius.
Paramicippa platipes, *Edws.* Red Sea.
Pericera cornigera, *Edws.* Indian Ocean.
Stenocinops cervicornis, *Edws.* Mauritius.
Menæthius monoceros, *Edws.* Red Sea, Indian Ocean, Mauritius.
Halimus aries, *Edws.* Indian Ocean.
,, auritus, *Edws.* Indian Ocean.
Acanthonyx dentatus, *Edws.* Cape of Good Hope.

Tribe Parthenopiens.

Eumedonus niger, *Edw.* China coasts.
Lambrus longimanus, *Edw.* Pondicherry, Amboyna.
,, pelagicus, Red Sea.
,, echinatus, *Edw.* Pondicherry.
,, serratus, *Edw.* Indian Ocean.
,, prensor, *Edw.* E. Indies.
,, carenatus, *Edw.* Pondicherry.
Parthenope horrida, *Edw.* Indian Ocean, Atlantic.
Cryptopodia fornicata, *Edw.* Indian Ocean.

CANERIDES.

Tribe I.—Canceriens Cryptopodes.

Œthra scruposa, *Edwardes*, Mauritius, Archipelago.
Cancer roseus, *Edw.* Red Sea.
,, integerrimus, *Edw.* Indian Ocean.
,, marginatus, *Edw.* Red Sea.
,, ocyroe, *Edw.* Asia seas.
,, mamillatus, *Edw.* Australia.
,, sculptus, *Edw.* Red Sea.
,, limbatus, *Edw.* Red Sea.
,, savignii, *Edw.* Red Sea, Indian Ocean.
,, calculosus, *Edw.* New Holland.
Carpilius maculatus, *Edw.* Indian Ocean.
,, convexus, *Edw.* Red Sea.
Zozymus latissimus, *Edw.* New Holland.
,, pubescens, *Edw.* Mauritius.
,, tomentosus, *Edw.* Indian Ocean.
,, æneus, *Edw.* Indian Ocean.
Xantho hirtissimus, *Edw.* Red Sea.
,, rufopunctatus, *Edw.* Mauritius.
,, asper, *Edw.* Red Sea.
,, scaber, *Edw.* Sunda Islds.
,, lamarckii, *Edw.* Mauritius.
,, Reynaudii, *Edw.* Indian Ocean.
,, peronii, *Edw.* New Holland.
,, impressus, *Edw.* Mauritius.
,, lividus, *Edw.* Mauritius.
,, hirtipes, *Edw.* Red Sea.
,, punctatus, *Edw.* Mauritius.
,, incisus, *Edw.* Australia.
,, radiatus, *Edw.* Mauritius.
Chlorodius ungulatus, *Edw.* Australia.
,, areolatus, *Edw.* New Holland.
,, niger, *Edw.* Red Sea.
,, exaratus, *Edw.* Indian coasts.
,, sanguineus, *Edw.* Mauritius.
,, ondorus, *Edw.* New Zealand.
Ozius tuberculosus, *Edw.* Indian Ocean.
,, truncatus, *Edw.* Australia.
,, guttatus, *Edw.* New Holland.
,, frontalis, *Edw.* Tranquebar
Pseudocarcinus rumphii, *Edw.* Indian Seas.
,, bellangerii, *Edw.* Indian Seas.
,, gigas, *Edw.* New Holland.
Etisus dentatus, *Edw.* Ind. Archipelago.
,, anaglyptus, *Edw.* Australia.
,, inæqualis, *Edw.* Africa coast.
Pilumnus fimbriatus, *Edw.* New Holland.
Ruppellia tenax, *Edw.* Red Sea.
Eriphia spinifrons, *Edw.* All seas.
,, lœvimana, *Edw.* Mauritius.
Trapezia dentifrons, *Edw.* Australia.
,, ferruginea, *Edw.* Red Sea.
,, digitatis, *Edw.* Red Sea.
Melia tresselata, *Edw.* Mauritius.

Tribe II.—Portuniens.

Platyonichus bipustulatus, *Edw.* Indian Ocean.
,, nasutus, *Edw.* Mediterranean, Ocean coasts.
Portunus integrifrons *Edw.* Indian Ocean.
Lupea tranquebarica, *Edw.* Asiatic seas, Tranquebar.

1st.—Sub-genus Lupees nageuses.

,, pelagica, *Edw.* Red Sea, Indian Ocean.
,, sanguinolenta, *Edw.* Indian Ocean.
,, lobifrons, *Edw.* East Indies.
,, granulata, *Edw.* Mauritius.
,, gladiator, *Edw.* Indian Ocean.
Thalamita.

1st.—Sub-gen. Thalamita quadrilateres.

,, admete, *Edw.* Red Sea, Indian Ocean.
,, chaptalii, *Edw.* Red Sea.
,, crenata, *Edw.* Asiatic Seas.
,, prymna, *Edw.* Australia.

2nd.—Sub-genus Thalamitœ hexagonales.

,, crucifera, *Edw.* Indian Ocean.
,, annulata, *Edw.* Red Sea, Indian Ocean.
,, natator, *Edw.* Indian Ocean.
,, truncata, *Edw.* Indian Ocean.
,, callianassa, *Edw.* Indian Ocean.
,, erytho-dactyla, *Edw.* Australia.
Podophthalmus vigil, *Edw.* Indian Ocean.
Thelpheusa indica, *Edws.* Coromandel Coast.
,, chaperon arrondi, Q. and G.
,, perlata, *Edws.* Cape of G. Hope.
,, leschenaudii, *Edws.* Pondicherry.

Tribe Gecarcinœ.

Cardisoma carnifex, *Edws.* Pondicherry.
Gecarcinus lagostoma Q. and G. Australia.

Tribe Pinnotheriens, Edw.

Elamena mathæi, *Edws.* Red Sea, Mauritius.
Hymenosoma orbiculare, *Edws.* Cape of Good Hope.
Myctiris longicarpis, *Edws.* Australia.
Doto sulcatus, *Edws.* Red Sea.

Tribe Ocypodiens.

Ocypoda cordimana, *Edws.* Mauritius.
,, fabricii, *Edws.* Oceanica.
,, ceratophthalma, *Edws.* Egypt, Mauritius, New Holland.
,, brevicornis. *Edws.* E. Indies.
,, macrocera, *Edws.* E. Indies, Brazil.
Gelasimus forceps. *Edws.* Australia.
,, tetragonon, *Edws.* Red Sea, Mauritius.
,, cordiformis, *Edws.* Australia.
,, chlorophthalmus, *Edws.* Mauritius.
,, annulipes, *Edws.* Indian Seas.

Tribe Gonoplaciens.

Gonoplax rhomboides, *Edws.* Ocean and Mediterranean.
Macrophthalmus transversus, *Edws.* Pondicherry.
,, parvimanus, *Edws.* Mauritius.
,, depressus, *Edws.* Red Sea.
Cleistotoma leachii, *Edws.* Red Sea.

Tribe Grapsoidiens.

Sesarma tetragona, *Edws.* Indian Ocean.
,, indica, *Edws.* Java.
,, quadrata, *Edws.* Pondicherry.
Cyclograpsus punctatus, *Edws.* Indian Ocean.
,, audouinii, *Edws.* New Guinea.
,, quadridentatus, *Edws.* New Holland.
,, sexdentatus, *Edws.* New Zealand.
,, gaimardii, *Edws.* New Holland.
,, octodentatus, *Edws.* King Island.
,, latreillii, *Edws.* Mauritius.
,, renicilger, *Edws.* Asiatic Seas.
,, pallipes, *Edws.* New Holland.
Grapsus strigosus, *Edws.* Red Sea, Indian Ocean. New Holland.
,, variegatus, *Edws.* New Holland, Chili.
,, messor, *Edws.* Red Sea, Indian Ocean.
,, plicatus, *Edws.* Sandwich Islands.

Plagusia clavimana, *Edws.* New Holland, N. Zealand, Vanicoro.
Plagusia tomentosa, *Edws.* Cape of Good Hope, Chili.
,, depressa, *Edws.* Ind. Ocean, China, N. Guinea.
,, squamosa, *Edws.* Red Sea, E. Africa, Indian Ocean.
Varuna littorata, *Edws.* Indian Ocean.

FAM.—OXYSTOMES.

Calappe lophos, *Edws.* Indian Seas.
,, gallus, *Edws.* Mauritius.
,, cristata, *Edws.* Asiatic Seas.
,, tuberculata, *Edws.* E. Archipelago.
,, fornicata, *Edws.* Indian Seas.
Orithyia mamillaris, *Edws.* China Seas.
Leucosia urania, *Edws.* New Guinea.
,, craniolaris, *Edws.* Indian coasts.
Myra fugax, *Edws.* Red Sea, Java.
Oreophorus horridus, *Edws.* Red Sea.
Philyra scabriuscula, *Edws.* Indian Seas.
Arcania erinaceus, *Edws.* Indian Seas.
Ixa canaliculata, *Edws.* Mauritius.
Nursia hardwickii, *Edws.* India.
,, granulata, *Edws.* Red Sea.

Tribe Corystiens.

Iphis septem-spinosa, *Edws.* Indian Seas.
Nautilocorystes ocellatus, *Edws.* Cape of Good Hope.
Dorippe quadridentata, *Edws.* Indian Ocean.
,, sima, *Edws.* Indian coasts.
,, astuta, *Edws.* Asiatic seas.
Caphyra rouxii, *Edws.* New Holland.

FAM.—APTERURES. *Edw.*

Tribe Dromiens.

Dromia rumphii, *Edws.* E. Indies.
,, fallax, *Edws.* Mauritius.
,, hirtissima, *Edws.* Cape of G. Hope.
,, caput mortuum, *Edws.* Indian Ocean.
,, unidentata, *Edws.* Red Sea.
Dynomene hispida, *Edws.* Mauritius.

Tribe Homoliens.

Lomis hirta, *Edws.* Australia.

Tribe Pactoliens.

Ranina dentata, *Edws.* Indian Seas, Mauritius.

FAM.—PTERYGURES.

Tribe Hippiens.

Albunea symnista, *Edws.* Asiatic seas.
Remipes testudinarius, *Edws.* New Holland.
Hippa asiatica, *Edws.* Asiatic seas.
Pagurus cristatus, *Edws.* New Zealand.
,, deformis, *Edws* Mauritius Seychelles.
,, punctulatus, *Edws.* Indian Ocean.
,, affinis, *Edws.* Ceylon.
,, sanguinolentus. Q. and G.
,, setifer, *Edws.* New Holland.
,, clibanarius, *Edws.* Asiatic seas.
,, crassimanus, *Edws.* S. Seas.
,, tibicen, *Edws.* South Seas.
,, elegans, Q. and G. New Ireland.
,, aniculus, *Edws.* Mauritius.
,, gonagrus, *Edws.* China.
,, pilosus, *Edws.* New Zealand.
,, frontalis, Q and G. New Holland.
,, gamianus, *Edws.* Cape of Good Hope.
,, miles, *Edws.* Coasts of India.
,, custos, *Edws.* ,, ,,
,, diaphanus, *Edws.* Oceanica.
,, hungarus, *Fabr.* India, Naples.
Cenobita clypeata, *Edws.* Asiatic seas.
,, rugosa, *Edws.* Indian Ocean.
,, spinosa, *Edws.* Asiatic seas.
,, perlata, *Edws.* South Seas.
Birgus latro, *Edws.* Asiatic seas.
,, elongata, *Edws.* New Zealand.
,, lamarckii, *Edws.* New Ireland.
,, dentata, *Edws.* Java.
,, asiatica, *Edws.* Mauritius.
,, maculata, *Edws.* New Ireland.
Birgus sculpta, *Edws.* Java.
,, pisum, *Edws.* China.

Tribe Scyllariens.

Scyllarus rugosus, *Edws.* Pondicherry.
,, squammosus, *Edws.* Mauritius.
Thenus orientalis, *Edws.* Indian Ocean.
Ibacus peronii, *Edws.* Australian seas.
,, antarticus, *Edws.* Asiatic seas.
Palinurus lalandii *Edws.* Cape of Good Hope.
,, fasciatus, *Edws.* Indian Ocean.
,, ornatus, *Edws.* Indian seas.
,, sulcatus, *Edws.* Indian coasts.
,, penicillatus, *Edws.* Indian Ocean.
,, dasypus, *Edws.* Indian seas.

FAM—THALASSINIENS.

Glaucothoe peronii, *Edws.* Seas of Asia.

Tribe Gastcrobranchides.

Callianidea typa, Q and G. New Ireland.
Callianisea elongata, *Edws.* Marriannes.

FAM.—ASTACIENS.

Homarus capensis, *Edws.* Cape of G. Hope.

FAM.—SALICOQUES.

Tribe Alpheens.

Alpheus brevirostris, *Edws.* New Holland.
,, ventrosus, *Edws.* Mauritius.
,, bidens, *Edws.* Asiatic seas.
,, chiragricus, *Edws.* do do
,, villosus, *Edws.* N. Holland.
,, frontalis, *Edws.* New Holland.
Poutonia macrophthalma, *Edws.* Asiatic seas.
,, armata, *Edws.* New Ireland.
,, enflec, *Edws.* Coylon, Vanicoro.

Tribe Palemoniens.

Hippolyte ventricosus, *Edws.* Asiatic seas.
,, quoyanus, *Edws.* New Guinea.
,, spinifrons, *Edws.* New Zealand.
,, spinicaudus, *Edws.* New Holland.
,, gibberosus, *Edws.* New Holland.
,, marmoratus, *Edws.* Oceanica.
Rynchocinetes typus, *Edws.* Indian Ocean.
Palemon natator, *Edws.* Indian Ocean on the Gulf weed.
,, longirostris, *Edws.* Ganges mouth.
,, carcinus, *Edws.* do
,, ornatus, *Edws.* Amboyna, Waigyou.
,, lamarrei, *Edws.* Bengal coasts.
,, tranquebaricus, *Fabr.* Tranquebar.
,, hirtimanus, *Edws.* Mauritius.

Tribe Peneens.

Stenopus hispidus, *Edws.* Indian Ocean.
Penæus canaliculatus, *Edws.* Celebes, Mauritius.
,, monoceros. *Edws.* India.
,, indicus, *Edws.* Coromandel.
,, monodon, *Edws.* Indian coasts.
,, affinis, *Edws.* Malabar.
,, brevicornis, *Edws.* Indian coasts.
,, crassicornis, *Edws.* Indian coasts.
Penæus styliferus, *Edws.* Bombay.
Oplophorus typus, *Edws.* N. Guinea.
Acetes indicus, *Edws.* Ganges mouth.
ORDER Stomatopodes.

FAM.—CARIDIOIDES.

ORDER STOMAPODES.

Lucifer reynaudii, *Edws.* Indian Ocean.
,, typus, *Edws.* Indian Ocean?
Phyllosoma communis, *Edws.* African and Indian seas.
,, stylifera, *Edws.* Indian Ocean.
,, affinis, *Edws.* New Guinea seas.
,, clavicornis, *Edws.* African and Indian seas.
,, longicornis, *Edws.* New Guinea.
,, freycinetii, *Edws.* New Guinea.
,, laticornis, *Edws.* Indian seas.
,, indica, *Edws.* Indian Ocean.

Phyllosoma brevicornis, *Edws.* African and Indian seas.
,, stylicornis, *Edws.* Indian Ocean.
Phlias serratus, *Edw.* Port Jackson, Malonines.
Anisopus dubius, *Edw.* Mauritius?
Amphitoe indica, *Edw.* Indian Ocean.
,, reynaudii, *Edw.* Cape of Good Hope.
,, gaimardii, *Edw.* New Holland.
,, costata, *Edw.* Bourbon.
,, ermannii, *Edw.* Thermal Waters of Kamptschatka.

FAM. HYPERINES.
Tribe Ordinaires.
Vibilia peronii, *Edw.* Asiatic Seas.
Phorcus raynaudii, *Edw.* Indian Ocean.
Daira gabertii, *Edw.* Indian Seas.
Anchylomera blossevilleii, *Edw.* Indian Seas.
,, hunterii, *Edw.* Bourbon.
Oxycephalus piscator, *Edw.* Indian Ocean.
,, armatus, *Edw.* Amboyna and Vandieman's land.

ORDER. LŒMODIPODES.
FAM. CAPRELLIENS OR LŒMODIPODES FILIFORMES.
Caprella scaura, *Edw.* Mauritius.
Cyamus erraticus, *Edw.* On a whale.
,, ovalis, *Edw.* ,, ,,
,, gracilis, *Edw.* ,, ,,

ORDER. ISOPODES.
SEC. ISOPODES MARCHEURS.
FAM. IDOTEIDES.
Tribe Idoteides Arpenteuses.
Idotea rugosa, *Edw.* Indian Seas.
,, indica, *Edw.* Malabar Coast.
,, peronii, *Edw.* Australia.
,, hirtipes, *Edw.* Cape of Good Hope.
FAM. Asellotes
Tribe Asellotes Homopodes.
Ligia brandtii, *Edw.* Cape of G. Hope.
Tribe. Cloportides Terrestres.
Porcellio truncatus, *Edw.* Mauritius.
Armadillo nigricans, *Edw.* Cape of Good Hope.
,, flavescens, *Edw.* ,,
DIVISION TYLOSIENS.
ISOPODES NAGEURS
FAM. SPHEROMIENS.
Sphæroma quoiana, *Edw.* Vandieman's land.
,, gaimardii, *Edw.* New Holland.
,, pubescens, *Edw.* ,,
,, armata, *Edw.* New Zealand.
,, dicantha, *Edw.* King Isld.
,, perforata, *Edw.* St. Paul.
Zuazare diademao *Lexbh.* New Holland.
Cymodocea armata, *Edw.* Australia.
Cerceis tridentata, *Edw.* King Isld.

FAM. CYMOTHOADIENS.
Tribe. ,, errans.
Cirolana elongata, *Edw.* Ganges mouth.
,, sculpta, *Edw.* Malabar.
Alitropus typus, *Edw.* Bengal.
,, aculeata, *Edw.* Indian Seas.
Anilocra capensis, *Edw.* Cape of G. Hope.
Livoneca raynaudii, *Edw.* Cape of Good Hope.
,, indica, *Edw.* Sumatra.
Cymothoa mathæi, *Edw.* Seychelles.
,, frontale, *Edw.* Asiatic Seas.
,, trigonocephala, *Edw.* China, N. Holland.
,, banksii, *Edw.* Cape of G. Hope.
SECTION. ISOPODES SEDENTAIRES, the Epicarides of Latreille.

LEGION. BRANCHIOPODES
ORDER. PHYLLOPODES
FAM. Apusiens.
Limnadia mauritiana, *Edw.* Mauritius.
,, tetracera, *Edw.* Charkow.
ORDER CYPROIDES or OSTRACODES.
Cypridina reynaudii, *Edw.* Indian Ocean.
ORDER. COPEPODES.
FAM. PONTIENS.
Saphirina indicator. *Edw.* Cape of Good Hope.
,, fulgens, *Edw.* Atlantic.
FAM MONOCLES.
Cyclops vulgaris, *Edw.* Bourbon.

SUB CLASS. CRUSTACES SUCEURS.
ORDER. SIPHONOSTOMES.
FAM.. PELTOCEPHALES.
Tribe Caligiens.
Caligus kroyerii, *Edw.* On a Diodon.
,, scutatus, *Edw.* Indian Seas.
,, pharaonis, *Edw.* Red Sea on a Chætodon.
Tribe Pandariens.
Euryphorus nordmannii, *Edw.* Asiatic Seas.
Dinemoura affinis, *Edw.* Indian Seas.
,, ferox, *Edw.* New Zealand.
Pandarus pallidus, *Edw.* Asiatic Seas.
,, dentatus, *Edw.* Tongatabon.
Phyllophora cornuta *Edw.* Tongatabou.
ORDER. LERNEIDES.
FAM. CHONDRACANTHIENS.
Tucca impressus, *Edw.* On a Diodon.
FAM. LERNEOCERIENS.
Penellus blainvillii, *Edw.* On Exocœtus valitans.
Lerneonema lesueurii, *Edw.* On Exocœtus valitans.
ORDER ARANEIFORMES OR PYCHNOGONIDES.
Nymphum gracile, *Edw.* Ocean coasts.
Pallene chiragrus, *Edw.* Bay of Jarvis, New Holland.

SUB-CLASS XYPHOSURES.
Limulus moluccanus, *Edw.* Moluccas.
,, longispina, *Edw.* China, Japan.
,, rotundicauda *Edw.* Moluccas.

CRUST'HA. Of the race of Crust'ha, are Kansa, prince of Mathura, the fifty-ninth, and his cousin Crishna, the fifty-eighth, from Budd'ha; while, of the line of Pooru, descending through Ujmida and Deomida, are Sul, Jarasandha, and Yoodishtra, the fifty-first, fifty-third,and fifty-fourth, respectively.—*Tod.*

CRUTTENDEN, G. S. J., an officer of the Indian Navy, author of a Report on the Mijjartheza tribe of Somali, inhabiting the district forming the N. E. point of Africa; also, of a Memoir on the Western and Eastern tribes inhabiting the Somali coast of N. E. Africa; also of a Journal of an excursion toSanaa the capital of Yemen.—*Geo. Trans.* 1844—1846, *vol. VII.* 3. *Bom. Geo. Trans.* 1847—1849, *vol. VIII. p.* 177. *Ibid. vol II.* 39.

CRUZCOOL. An opening or strait separating Mascal Island from the Chittagong coast, north of the White Sand Cliffs which are in lat. 21° 17' N. to 21° 24" N.—*Horsb.*

CRYPSIRHINA VARIANS, a curious bronze coloured magpie, common to Siam and Java. C. varians is the Phrenotria temia, *Horsfield*, and seems to be of common occurrence in the Tenasserim provinces, where its presence was first remarked by the late Dr. Helfer.—*Wallace. Blyth.*

CRYPTOCARYA, a genus of plants, all of them trees, of the Nat. Order Lauraceæ, of which the following may be named:

C. amygdalia, *Nees* of Patgong.
C. floribunda, *Nees* of Silhet.
C. Griffithiana.
C. membranacea, *Thw.* of Saffragam, Ceylon.
C. Wightiana, *Thw.* of Ceylon. *Voigt.*

CRYPTOCARYA WIGHTIANA. THW.

C. floribunda *Wight.* | Goloo-mora-gass SINGH.

A large tree of Ceylon and the Peninsula. —*Voigt. Thw. Wight Ic.*

CRYPTOCHILUS SANGUINEA a plant of Nepaul, one of the Orchiaceæ.

CRYPTOGAMIC PLANTS. From the Lichen tribe, from the Algæ, fungi, mosses and ferns, man derives nutriment and valuable products. Some of the Cryptogamic plants form considerable article of commerce, particularly as food plants, affording gelatinous and amylaceous matter, and being useful in medicine and the arts.—*Simmonds.* See Capillaire.

CRYPTOLEPIS. A genus of plants belonging to the nat. order Asclepiaceæ C. elegans, C. grandiflora, C. pauciflora, and C. reticulata, *W. Ic. Voigt.*

CRYPTOLOPHIA, a genus of birds of the family Tchitreadæ, in which are 6 gen. 12 sp., viz. 3 Tchitrea; 2 Philentoma; 1 Rhipidura; 4 Leucocerca; 1 Myagra; 1 Crypotolophia. See Birds, page 503.

CRYPTOMERIA JAPONICA, D. DON.

Cupressus Japonica, *Thunb.*

The Japan Cedar, a beautiful and greatly admired tree, is a species of pine, not unlike the Araucaria of Norfolk Islands and Brazil. When growing luxuiantly, it is highly ornamental, rising from the ground as straight as a larch, and sending out numerous side branches almost horizontally from the main stem, which again droop towards the ground in a graceful and "weeping" manner. The wood of the tree has a kind of twisted grain, and possesses great strength and durability. It is highly valued by the Chinese and, from its beauty and straightness, is often used by the Mandarins and priests for the long poles which are generally seen in front of their houses and temples. It is also well known and highly prized by the natives of Japan as an ornamental tree. It is a most conspicuous tree, evidently in high favour with the priests of Buddha, and well deserves to be so. It succeeds admirably in China, and has been introduced into England, where it is admired.—*Fortune's Wanderings, page* 128, *Fortune's Tea Districts, pages* 16, 212, 304.

CRYPTONYX CRISTATUS. See Tetraonidæ.

CRYPTOPHRAGMIUM AXILLARE, C. canescens, C. serrulatum, and C. venusum, plants of the Nat. Ord. Acanthaceæ.

CRYTOPODIA FORNICATA. See Parthenopidæ.

CRYPTOSTEGIA GRANDIFLORA. R.B.

Nerium grandiflorum, *Roxb.*

Palay MALEAL. TAM. | Large flowered Cryptostegia

A climbing plant belonging to the family Asclepiadaceæ is common in the south of India, and found in abundance in some places, yields a fine silky fibre, capable of being spun into fine yarn, and of employment for many of the purposes to which flax is applicable, suited to the weaving of different qualities of cloths. Palay fibre seems to be a good substitute for flax, as it is soft, pliant and susceptible of being split into the finest threads. The stalk contains a large per centage of fibre, besides yielding a milky juice which solidifies into a gum elastic of the nature of India rubber. Samples of the concrete juice were sent to the Madras Exhibition from Nellore, from Masulipatam, from Cuddapah and from Madras. The milky juice has long been known to contain caoutchouc, but it has not as yet been collected for the purposes of commerce, and it is doubtful if a sufficient quantity could be obtained to render it an article of trade. The small samples forwarded appeared to be of excellent quality and answered well for rubbing out pencil marks from paper. Mr. Underwood made a fair attempt at producing waterproof cloth by simply run-

Decapodes.
Stomapodes.
Amphipodes.

Loemodipodes.
Isopodes.
Phyllopodes.

CRUST[illegible]EA.

Daphnoides or Cladoceres.
Cyproides or Ostracoides.
Copepodes.

Siphonostomes.
Lerneides.
Araneiformes or Pychnogonides.

SUB-CLASS CRUSTACEA MAXILLES CF M. EDWARDS.

I. LEGION PODOPHTHALMIENS.

ORDER DECAPODES.

SEC. DECAPODES BRACHYURES.

Fam. Oxyrhinques.

1st Tribe Macropodiens.

2 Leptopodia, 1 Latreillia, 3 Stenorynchus, 1 hæus, 1 Camposcia, 1 Eurypodius, 6 Amathia, Inachus, 3 Egeria, 4 Doclea.

2nd Tribe Maiens, Edw.

3 Libinia, 1 Herbstia, 6 Pisa, 1 Lissa, 2 Hyas, Naxia, 4 Chorinus, 8 Mitrax, 3 Paramithrax, Maia, 2 Micippe, 1 Criocarcinus, 2 Paramicippa Pericera, 1 Stenocinops, 1 Menæthius, 2 Halimus, Acanthonyx, 2 Epialtus, 4 Leucippa.

Tribe Parthenopiens.

1 Eumedonus, 1 Eurynome, 10 Lambrus, 1 Parthepe, 1 Cryptopodia.

Fam. Cyclometopes.

1st Tribe Canceriens.

a Cancerien Cryptopodes.

1 Œthra.

b Canceriens arqués.

15 Cancer, 4 Carpilius, 5 Zozymus, 1 Lagostoma, Xantho, 7 Chlorodius, 2 Panopeus, 4 Ozius, 4 eudocarcinus, 4 Etisus, 2 Platycarcinus, 4 Pilum-is, 3 Ruppellia, 1 Pirimela, 3 Eriphia, 7 Trapezia, Melia.

2nd Tribe Portuniens.

1 Carcinus, 4 Platyonichus, 1 Polybius, 12 Portu-is, 14 Lupea, 10 Thalamita, 1 Pedophthalmus.

Fam. Catometopes.

Tribe Thelphusiens.

6 Thelpheusa, 1 Boscia, 1 Trichodactylus.

Tribe. Gecarcinœ or land crabs.

2 Uca, 2 Cardisoma, 1 Gecarcoidea, 3 Gecarcinus.

Tribe Pinnotheriens.

4 Pinnotheres, 1 Elamena, 1 Hymenosoma.
1 Myctiris, 1 Doto.

Tribe Ocypodiens.

8 Ocypoda, 10 Gelasimus.

Tribe Genoplaciens.

1 Pseudorhombila, 2 Gonoplax, 7 Macrophthalmus, 1 Cleistotoma.

Tribe Grapsoidiens.

9 Sesarma, 9 Cyclograpsus, 2 Pseudograpsus, 8 rapsus, 1 Nautilograpsus, 4 Plagusia, 1 Varuna.

Fam. Oxystomes.

Tribe Calappiens.

8 Calappe, 1 Platymera, 1 Mursia, 1 Orithyia, Matuta, 2 Hepatus.

Tribe Leucosiens.

2 Leucosia, 3 Ilia, 1 Myra, 1 Guaia, 4 Ebalia, Oreophorus, 3 Philyra, 1 Arcania, 2 Ixa, 3 Perse-iona, 2 Nursia, 1 Iphis.

Tribe Corystiens.

3 Atelecyclus, 1 Thia, 1 Polydectus, 1 Corystes, Nautilocorystes, 1 Pseudocorystes, 5 Dorippe, Cymopolia, 1 Caphyra, 1 Ethusa.

Fam. Apterures.

Tribe Dromiens.

10 Dromia, 2 Dynomene, 2 Homola, 1 Lithodes, Lomis.

Tribe Pactoliens.

1 Pactolus.

Tribe Raniniens.

1 Ranina, 1 Ranilia, 1 Raninoides.

Fam. Pterygures.

Tribe Hippiens.

2 Albunea. 1 Remipes, 2 Hippa, 35 Pagurus, 6 Cenobita, 2 Cancellus, 1 Birgus.

Tribe Porcellaniens.

20 Porcellana, 1 Æglea, 4 Megalops, 2 Monolepis.

SECTION DECAPODES MACROURES.

Fam. Macroures Cuirasses.

Tribe Galatheides.

3 Galathea, 1 Grimothea.

Tribe Scyllariens.

6 Scyllarus, 1 Thenus, 3 Ibacus.

Tribe Langoustiens.

13 Palinurus.

Fam. Thalassiens or Macroures.

Tribe Cryptobranchides Fouisseurs.

1 Glaucothoe, 2 Callianassa, 1 Axia, 3 Gebia; 1 Thalassina.

Tribe Gasterobranchides.

1 Callianidea, 1 Callianisea.

Fam. Astaciens.

5 Astacus, 3 Homarus, 1 Nehprops.

Fam. Salicoques.

Tribe Crangoniens.

4 Crangon.

Tribe Alpheens.

1 Atya, 1 Hymenocera, 12 Alpheus, 4 Pontonia, 1 Autonomea, 2 Caridina, 1 Nika, 1 Athanas.

Tribe Palemoniens.

1 Gnathophyllum, 22 Hippolyte, 1 Rhynchocinetes, 1 Pandalus, 1 Lysmata, 20 Palemon.

Tribe Pencens.

1 Stenopus, 3 Sicyonia, 11 Penæus, 1 Euphema, 2 Ephyra, 1 Oplophorus, 3 Pasiphæa, 1 Sergestes, 1 Acetes.

Decapodes doubtful.

1 Cerataspis, 1 Mulcion, 1 Posydon.

ORDER STOMAPODES.

Fam. Caridioides.

Tribe Mysiens.

5 Mysis, 2 Cynthia, 1 Thysanopoda.

Tribe Leuciferiens.

2 Leucifer.

Fam. Bicuirasses.

15 Phyllosomo, 1 Amphion.

Fam. Unicuirassees.

Tribe Erichthiens.

2 Squillerichthus, 9 Erichthus, 5 Alima.

Tribe Squilliens.

15 Squilla, 3 Gonodactylus, 1 Coronis.

II. LEGION EDRIOPHTHALMES.

ORDER AMPHIPODES.

Fam. Crevettines.

Tribe, Saltatores or Crevettines Saltatores.

5 Talitrus, 8 Orchestia, 6 Lysianassa, 1 Alibrotus, 1 Phlias, 2 Acanthonotus, 1 Issea, 1 Anisopus, 26 Amphitoe, 23 Gammarus, 1 Ischyrocerus, 1 Leucothoe.

Tribe Crevettines Marcheuses.

1 Ericthonius, 2 Cerapus, 1 Cerapodina, 2 Pordocerus, 2 Corophium, 1 Atylus, 1 Unciola.

Fam. Hyperines.

Tribe Hyperines Gammaroides.

1 Vibilia, 3 Hyperia, 1 Metoecus, 1 Phorcus, 1 Tyro, 1 Primno, 1 Lestrigonus, 1 Daira, 3 Themesto. 2 Anchylomera, 1 Phrosina, 2 Phronima.

Tribe Hyperines Anormales.

3 Typhis, 1 Pronoe, 3 Oxycephalus.

ORDER LOEMODIPODES.

Fam. Caprelliens or Loemodipodes filiformes.

6 Caprella, 1 Naupridia, 2 Leptomera.

Fam. Loemodipodes ovalaires or Cydmiens.

2 Cyamus.

ORDER ISOPODES.

SEC. ISOPODES MARCHEURS.

Fam. Idoteides.

Tribe Idoteides Arpenteuses.

2 Arcturus, 15 Idotea, 1 Anthura.

Fam. Asellotes Heteropodes.

Tribe Asellotes Heteropodes.

1 Apseudes, 1 Rhoea, 2 Tanais.

Tribe Asellotes Homopodes.

1 Limnoria, 1 Asellus, 3 Jæra, 1 Jæridina, 1 Omiscoda.

Fam. Cloportides.

Tribe Cloportides maritimes.

6 Ligia, 1 Lygidium.

Tribe Cloportides terrestres.

Division Porcellionides.

2 Oniscus, 6 Philoscia, 27 Porcellio, 1 Deto, 1 Trichoniscus, 1 Platyarthrus, 7 Armadillo, 1 Diploexochus, 16 Armadillidium.

Division Tylosiens.

1 Tylos.

SEC. ISOPODES NAGEURS.

Fam. Pranisiens.

Tribe Pranisiens ordinaires.

3 Pranisa.

Tribe Anceens.

2 Anceus.

Fam. Sphæromiens.

Tribe Spheromiens onguicules.

21 Sphæroma, 1 Zuzare, 11 Cymodocea, 4 Næsea, 1 Campecopea, 2 Cerceis, 1 Amphoroidea, 1 Cassidinae.

Tribe Sphæromiens Chælifers.

1 Ancinus.

Fam. Cymothoadiens.

Tribe Cymothoadiens ravisseurs.

4 Serolis.

Tribe Cymothoadiens errans.

4 Cirolana, 2 Eurydice, 5 Ægа, 1 Conilera, 3 Rocinela, 1 Pterelas, 1 Alitropus, 6 Nerocila, 6 Anilocra, 5 Livoneca, 1 Olencira, 12 Cymothoa, 1 Ourozeuktes.

SECTION ISOPODES SEDENTAIRES, THE EPICARIDES OF LATREILLE.

Fam. Joniens.

1 Jone.

Fam. Bopyriens.

2 Bopyrus.

LEGION TRILOBITES FOSSIL.

2 Nileus, 3 Amphyx, 13 Isotelus, 9 Asaphus, 1 Homalonotus, 19 Calymena, 1 Pleuracanthus, 5 Trinucleus, 1 Otarion, 3 Ogygia, 5 Paradoxides, 2 Peltoura.

Trilobites abnormaux or Battoides.

1 Agnostus.

III. LEGION BRANCHIOPODES.

ORDER PHYLLOPODES.

Fam. Apusiens.

1 Nebalia, 2 Apus, 3 Lemnadia.

Fam. Branchipiens.

4 Branchipus, 2 Artemia, 1 Eulimene.

ORDER DAPHNOIDES OR CLADOCERES.

14 Daphnia, 1 Sida, 1 Latona, 5 Lynceus, 1 Polyphemus, 1 Evadne.

IV. LEGION ENTOMOSTRACES.

ORDER CYPROIDES OR OSTRACOIDES.

32 Cypris, 11 Cythere, 1 Cypridina.

ORDER COPEPODES.

Fam. Pontiens.

2 Saphirina, 1 Peltidium, 1 Hersilia, 3 Pontia 1 Cetochilus.

Fam. Monocles.

1 Cyclops, 3 Cyclopsina, 1 Arpactians.

SUB CLASS CRUSTACEÆ SUCEURS.

ORDER SIPHONOSTOMES.

Fam. Peltocephales.

Tribe Arguliens.

2 Argulus.

Tribe Caligiens.

15 Caligus, 1 Chalimus, 2 Trebius, 3 Nogagus.

Tribe Pandariens.

1 Euryphorus, 2 Dinemoura, 6 Pandarus, 1 Phyllophora, 1 Cecrops, 1 Læmargue.

Fam. Pachycephales.

Tribe Ergasiliens.

3 Ergasilius, 1 Bomolocus, 1 Nicothoa.

Tribe Dichelestiens.

1 Anthosoma, 1 Dichelestium, 2 Nemesis. 1 Lamproglena.

ORDER LERNEIDES.

Fam. Chondracanthiens.

1 Selius, 1 Acthon, 2 Clavella, 2 Lernea, 1 Cycnus 1 Tucca, 1 Peniculus, 3 Lernanthropus, 8 Chondracanthus.

Fam. Lerneopodiens.

3 Tracheliastes, 2 Basanistes, 1 Achtheres, 5 Brachiella, 5 Lerneopoda, 5 Anchorella.

Fam. Lerneoceriens.

4 Penellus, 3 Lerneonema, 4 Lerneocera, 2 Lerne

ORDER ARANEIFORMES, OR PYCHNOGONIDES.

3 Nymphum, 2 Pallene, 1 Phoxichilidium. 1 Phoxichilus, 1 Pychnogonum.

Sub. Class Xyphosures.

5 Limulus.

ning the juice over the cloth, which received Honorable Mention.—*M. E. J. R.*

CRYPTOTHELEA CONSORTA. Wood Moth.

CRYSTAL.

Koreh HEB. | Balur HIND. PERS.

The crystal alluded to in Genesis xxxi. 40 as ice, and in Job vi, 16 as frost: and the Hind. Pers. word Balur, seem to be applied indifferently to ice and rock crystal. Rock crystal occurs abundantly in many parts of India, and that of the south of the Peninsula is known as Vellum stone, from the place of its occurrence. It is said that rock crystal can be dyed. If made red hot, and plunged repeatedly into the tincture of cochineal, it becomes a ruby; if into a tincture of Red Sandal, it takes a deep red tint, into tincture of saffron, a yellow like the topaz; into a tincture of turnesol, a yellow like the topaz; into juice of Nerprum, it takes a deep violet like the amethyst, and into a mixture of tincture of turnesol and saffron, it becomes an imitation of the emerald. Steeping the crystal in oil of turpenture, saturated with verdigris or spirits of wine, holding dragons blood or other coloured resins in solution, depth of tints are produced proportioned to the time of steeping. Crystals can be colored if heated in a crucible with orpiment and arsenic. Crystal coloured red are false rubics known in France as Rubaces.—*King.* p. 178. See Cambay.

CSHATRYAS. See Chatrya; Hindu.

CSHITIJA. (CACSHA). SANSC. The horizon; also, the sine of an arc referred to the horizon, used for finding the ascensional difference.—*Capt. Ed. Warren, Kala Sankalita, p.* 94, 98, 105.

CSOMA DE KOROS, ALEXANDER a Hungarian philologist, who resided long at Ladak and Kanum studying the Tibetan language. He died in 1842 on the Himalayas. A Memoir of him, appeared in the Bl. As. Trans. 1841. He bequeathed Rs. 5,000 to the Asiatic Society of Bengal. He resided in Kunawar, and on the frontier, from 1828, for the sake of studying the language of the country. An account of Gerard's interview with him appeared in the Gleanings in Science, 1829, vol. I. 110. He wrote a Geographical notice of Thibet in Bl. As. Trans. 1833. vol. I. 121.

The Buddhist religious works of Tibet brought to notice by Alexander Csoma de Koros, are the Kanjur, which consists in its different editions of 100, 102 and 108 folio volumes, and comprises 1083 distinct works. The Tanjur, consists of 225 volumes folio, each weighing from 4 to 5 pounds in the edition of Peking, but an edition has also been published at Lhassa, and other places: of these De Koros gave an analysis in the 20th volume of the Asiatic Researches and died soon after. See Pali.

CTENOID FISHES, a great division of fishes, thus named by Agassiz, from the pectinated appearance of the rectral edges of the scales.—*Engl. Cyc. page* 241. See Fishes.

CTESIAS. Of the history of Ctesias only a few fragments have been preserved, chiefly in the works of Diodorus Siculus and Photius He was a native of Cnidus, and was the Greek royal physician at the ancient Persian capital, where he arrived either as a prisoner or a traveller. Being skilled in medicine, he was taken into favour by the king, and remained seventeen years at his court, where he was treated with great distinction. During his residence in Persia he was able to consult the public archives, and he compiled from them a history of the Persians, and of their predecessors in the empire of Asia. He also wrote an account of India and its productions, but the absurd exaggerations and fables which this contains have caused all his other works to be viewed with suspicion. He is likewise accused of being led, by extreme jealousy of Herodotus, into direct mis-statements, that he might contradict that historian. Aristotle, more than once, declares him to be unworthy of credit; and modern critics have generally agreed to reject altogether, or to receive with great reserve, all his assertions. Yet Diodorus Siculus and several ancient authors, appear to have followed and trusted him; and it may be observed, that whilst mere travellers' tales and vulgar traditions were probably the only sources of his Indian marvels, written records and monuments may have furnished him with well-authenticated historical facts, to assist him in compiling the history of the country in which he resided, and of which he had a personal knowledge. Unfortunately, of his history very little remains, except the names of kings. Much relating to Assyria contained in the works of others was, however, undoubtedly copied from him. Ctesias and Isadore both mention a statue pillar of Semiramis at Baptane, but these and the Syriac inscriptions have disappeared. C'tesias mentions the use of swords as lightning conductors. The date of C'tesias is about B. C. 400; Onesicritus was an officer of Alexander's army (d. B. C. 328). *Smith's Dictionary of Gr. and. Rom. Yule Cathay* I. *p.* xxxix. *Layard Nineveh Vol.* I. p. xv.) See Lightning conductors.

C'TESIPHON. The Babylonian empire was subverted by Cyrus, who took the capital, by turning the course of the Euphrates and marching his troops along the bed of the river into the centre of the city. The walls and temple of Belus are said to have been demolished by Xerxes, on his return from the Grecian expedition ; but this could not have been the case, as they were still standing in the time of Alexander. After the building of Seleucia and C'tesiphon, Babylon became gradually deserted ; and we learn from St. Jerome that the space within the walls was converted by the Parthian kings into a royal hunting park. From this period we cease to hear of Babylon as a city, but notwithstanding so many ages of barbarism and ignorance have passed away, tradition still continues to identity both its name and situation. The town f Hilleh is said, by the people of the country, to be built on the site of Babel ; and some gigantic ruins still to be seen in its vicinity, are believed to be remains of that ancient metropolis. Porter remarks that when we consider that so many centuries have passed since Babylon became a deserted habitation, and that it yet lay in the neighbourhood of populous nations, our surprise ought to be, not that we find so little of its remains, but that we see so much. From her fallen towers have arisen, not only all the present cities in her vicinity, but others which, like herself, are long ago gone down into the dust. Since the days of Alexander, we find four capitals, at least, built out of her remains. Seleucia by the Greeks, C'tesiphon by the Parthians, Al Modain by the Persians,and Kufa by the Caliphs, with towns, villages, and caravansaries without number. C'tesiphon was built by the Parthians out of the ruins of Babylon. Its ruins are to be seen on the eastern shore of the Tigris, eighteen miles south of Bagdad, and immediately opposite to it, the ramparts and fosse of the Grecian city of Seleucia, which afterwards becoming identified with the former, under the name of Coche, they assumed,when thus united, the epithet of Al Modain, or the cities. C'tesiphon was most admirably situated on a sort of peninsula formed by a sudden flexure of the Tigris which must have embraced the greatest part of the town. Its foundation, however, can hardly be ascribed to any particular person, as it would seem to have increased gradually during a succession of many years, from a camp to a city. Pacoras, supposed to be Orodes,king of the Parthians, and contemporary with Anthony, is thought to be the first who surrounded it with walls, and made it the capital of the Parthian empire. It was sacked, together with Seleucia, by the generals of Marcus Aureleus, A. D. 165, and afterwards by the emperor Severus. It became the favourite winter residence of the powerful successors of Artaxerxes, from whom it was taken by Said, the general of the kalif Omar, A. D. 637. The sack of C'tesiphon was followed by its gradual decay, and little now remains, but part of the .palace of Chosroes (called Tak-i-Kesra, the arch of Chosroes) a melancholy emblem of the glory of its master. It is seen from afar on the plain, and presents a front of three hundred feet in length by one hundred and sixty in depth, having in its centre a vaulted hall, a hundred and six feet in height to the top of the arch, the span of which is eighty-five. The Ali Capi at Ispahan and gates of the palace of Delhi, sink into insignificance beside the Tak-i-Kesra. The city walls, which appear to have been of very great thickness, may also be traced to a considerable distance on both banks of the river. The names of Seleucia and C'tesiphon are very frequently confounded by the early Christian writers ; but the cities stood on opposite sides of the river Tigris, and were built at different periods. —*Layard Nineveh, Vol. I. p.* 242. *Kinneir's Geographical Memoir, p.* 253-54, 273, 274. *Porter's Travels. J. B. Frazer's Travels, p.* 3. See Euphrates. Kalneh. Kasr. Kesra. Seleucia. Tigris.

CUA KALANG. TAM. Curcuma angustifolia.

CUBAB CHINI. HIND. Piper cubeba, Cubebs, properly Kabab Chini.

CUBBON. Sir Mark, one of India's able and distinguished statesmen. He landed at Madras about A. D. 1800, and acquired his first knowledge of India under his uncle, sir Mark Wilks, then Resident at Mysore. He succeeded his intimate friend Sir William Morrison as Commissary-General in 1827, and in 1834, was selected by Lord William Bentinck to succeed that officer and his colleague, Mr. Macleod, as sole commissioner for Mysore, and the principality of Coorg, in the capture of which he had shared, was shortly afterwards added to his charge. Sir Mark Cubbon had here the administration of a Native State preserving its native institutions, but guided and directed by British officers. This problem has since been followed in the Punjaub, and has stood the sternest trial. The Mysore country had been exhausted by insurrection, famine, and misrule, under the rajah, but sir Mark Cubbon's wise and vigorous career established the value of the principle of government embodied in the Mysore system. He died at Suez, on his way to Britain, and was buried in the parish of Manghold, Isle of Man.—*Mona's Herald, May* 22. *Selections from the Records of the Government of India, Foreign Department, No.* 11, *Census of the Punjab, and Administration of Mysore.*

CUBEBAS. SP. **CUBEBES.** FR. **CUBEBI.** IT. Cubebs, the Piper cubeba.

CUBEBS.

Kababah	AR.
Sinbau-karawa	BURM.
Cubab	CHIN.
Cubebes	FR.
Kubeben	GER.
Dumki mirchi.	HIND.
Kabab-chini	„
Cubebi	IT.
Kumunkus	JAV.
Piper-cubeba	LAT.
Lada barekor: Kamunkus timunkus, komunkus, kumukus	MALAY.
Timmue	NEPAUL.
Kibabeb, Cabab-chini	PERS.
Cobebas	PORT.
Kubebii	RUS.
Sughanda-marichu	SANS.
Walgu-meris	SINGH.
Cubebas	SP.
Val-mullaghu	TAM.
Chalava mirrialu	TEL.
Kurfiyoon	YUNANI.

The Cubeb pepper, as it appears in commerce, is stated to be the fruits of two different species of Piper, the Piper cubeba, and P. caricum, both of them natives of Java, to which island their cultivation appears to be confined. In the Javanese language its name is Kumunkus, and this is its only specific one, for the Malay name lada barekor, meaning " tailed pepper," is a factitious one derived from the appearance of the dried fruit, which has always the foot-stalk adhering to it. The fruit of Piper cubeba, when ground, should afford 10 per 100 of essential oil, on distillation with water.—*Irvine, Crawfurd's Dict. page* 117.

CUBE SPAR, or crystaline carbonate of lime, of good quality, occurs in Nellore, Kurnool and Cuddapah. It is used in tin plates for mounting microscopic objects and as a source of very pure lime. Rhomb spar or Dolomite spar also occurs in Cuddapah.

CUBIT. Hat'h. HIND. A measure of length, from the point of the elbow to the point of the middle finger. The Egyptians made use of the cubit measure divided into six hand-breadths, or twenty-four fingers, and also of the royal cubit, which consisted of this lesser cubit and a hand-breadth over. The royal cubit contained twenty English inches, and two-thirds. The Jews made use of the same measure for length of a cubit and a hand-breadth. The Egyptians measured longer distances by the Schœnus of about six miles in length. Land was measured by the aroura or half acre, which, if square, measured a hundred cubits on each side. That a measure nearly the same was in use from the earliest times we learn from the size of the pyramids. Exactly such was the cubit used in making the five smaller pyramids of Gezeh.—*Egypt. Inscript. 2nd Series, pl.* 46. *Ezekie ch. XI*, 5. *Herodotus, lib., II.* 168. *Vyse's Pyramids in Sharpe's History of Egypt Vol. I.*, 167.

CUBYA KANYA, from Cubja (the spine) of the virgin (Kanya).

CUCHHOURA. A small rajpoot clan, of which there are a few in Goruckpoor.—*Elliot.*

CUCHWAHA, properly Cushwaha, being descended from Cush or Kusha, the eldest ? son of Rama. This is a celebrated rajput tribe. The rana of Amber is of the race who claim descent from Cush, second son of Rama, king of Ayodbya, who migrated and built the fort of Rotas, on the Sone. Authentic history commences in A. D. 294 with raja Nola, who founded Narwaz or Nishidr. Amber or Dundhwar, the early capital of Jeypore, was built by Jey Singh, and was a city of great architectural beauty. According to Tod, Amber gave its name to a rajpoot dynasty of the Soorya Vansa race, a scion of Nirwar.—*Tod, Thomas' Prinsep's Antiquities, p.* 259. *Elliot. Supp. Gloss.*

CUCHILLOS. SP. Knives.

CUCH-MARDA PAT. BENG. HIND. Corchorus olitorius.

CUCHUNAR. HIND. Bauhinia acuminata.

CUCHWAREE. See Kelat.

CUCIFERA THEBAICA.

Doom tree Gingerbread tree	Hyphæne coriacea *Gært.*

The Hyphæne exclusively inhabit Upper Egypt, especially the neighbourhood of Thebes, whence it is named *Cucijera thebaica.* Clumps of it occur near Thebes. Its stem, instead of growing without branches like other palms, forks two or three times, thus assuming the appearance of a Pandanus. The fruit is about the size of an orange, angular, irregularly formed, of a reddish colour, and has a spongy, tasteless, but nutritious rind. The albumen of the seed is hard and semi-transparent, and is turned into beads and other little ornaments. Its brown mealy rind resembles gingerbread.—*Eng. Cyc. p.* 385.

CUCKOW.

Koel	HIND.	Sacaph	HEB.

Cuculus canorus, is the European Cuckoo, of Europe, Asia, Africa, Malay countries, and common in the Himalaya, visiting the plains during the cold season. The Indian cuckows are the noisy koel, remarkable for the dissimilar sexes, and for parasitically laying in the nests of the crow. The Coucol, or Crow-Pheasant, is another noisy and conspicuous bird wherever there is a little jungle; the European Cuckoo will now and then turn up, more frequently in the barred plumage of immaturity. Amongst the birds of Tenasserim is a Cuckow, intermediate in size to C. micropterus and C. poliocephalus, and according best with Mr. Hodgson's C. saturatus, which differs from C. micropterus, *Gould*, chiefly in its smaller bill, like that of C. canorus; if it be not, indeed, the veritable C. micropterus of *Gould*, *Mr. Blyth's Report.* See Birds; Coel, Cuculidæ, Cuculuo; Kameri, Koel.

CUCUBALUS DRABA, *Gærtner*. A plant of the Alpine vegetation of Kedarnath.—*Hoffmeister Travels.*

CUCULIDÆ, the Cuckow-Tribe, or Cuckows, a family of Scansorial Birds, placed by Cuvier and Lesson next to the Wrynecks, Yunx. Among the birds of Tenasserim is a Cuckow, intermediate in size to C. micropterus, and C. poliocephalus, and according best with Mr. Hodgson's C. saturatus, which differs from C. micropterus, *Gould*, chiefly in its smaller bill, like that of C. canorus ; if it be not, indeed, the veritable C. micropterus of *Gould.*

FAM. Cuculidæ. 10 gen., 30 sp., viz.,

Sub fam. Cuculinæ, 3 gen,. 2 sub gen. 17 sp., viz., 9 Cuculus : 2 Surniculus : 3 Chrysococcyx : 1 Eudynamis: 2 Oxylophus.

Sub fam. Phænicophainæ, viz. 1 Dasylophus ; 3 Phænicophaus ; 5 Ganclostomus ; 1 Rinortha ; 4 Taccocaia ; 5 Centrophus.—*Mr. Blyth's Report.*

CUCULUS CANORUS the Common Cuckoo of Europe, Asia, Africa, Malay countries : is common in the Himalaya, visiting the plains during the cold season.

CUCULUS MACULATUS. GMEL. C. mindanensis. C. niger. C. scolopaceus, *Linn* are synonims of Eudynamis orientalis, *Linn.*

CUCUMBER.

Kischyim	ÆTHIOP.	Khekra	HIND.
Kusaja	ARAB.		

The cucumber is grown from seed at all seasons. The plants should never be too close. It thrives in all parts of India, and grows with much or little water ; and if allowed to climb over sticks or trellis work, is out of the way of jackals and porcupines, who are fond of the fruit. The natives grow them in their fields, in the cold season, amongst grain of various sorts, and in the sandy beds of rivers during the hot weather. The cucumber of Numbers xi. 14 is the Cucumis melo, the melon.—*Jaffrey.* See Cucumis.

CUCUMBER, CLIMBING INDIAN ENG. syn. of Zanonia indica, *Linn.*

CUCUMBER SEED OIL.

Antimun-bij Miniak	MALAY.	Villerikai yennai	TAM.
Timun-biji-miniak		Dosa kaia nuna	TEL.
Katimur	,, ,,		

A clear edible oil, obtained by expression from the seeds of Cucurbita pepo and C. melapepo. The plants of the cucumber family frequently supply a bland oil, which is used in the East as a lamp oil and for cooking.

CUCUMBER TREE. ENG. Averrohoa bilimbi, *Willde.*

CUCUMIS. A genus of plants belonging to the nat. order Cucurbitaceæ, comprehending the melon, the cucumber and some sorts of gourd. The Indian species of cucumis are

C. integrifolius.
C. melo.
C. momordica.
C. pubescens.
C. trigonus.
C. turbinatus.
C. utilissimus.

Two delicious varieties of melon grow wild in Marwar, Beekaneer and Jessulmeer : they are very small and high flavored, and are exported as delicacies. They probably are the Cucumis madraspatanus (*Hind.* Bungunuk) and the Cucumis turbinatus (*Hind.* Kackari.)

tha-Khwa-Khyen, BURM,
,, ,, megyoung BURM.
,, ,, koukyen BURM.
,, ,, lat. BURM.

htee htouk sao, BURM, are species of Cucumis.—*Irvine. Med. Top. p.* 209. *Eng. Cyc. Voigt. W. Ic.*

CUCUMIS ACUTANGULUS. LINN. syn. of Luffa acutangula, *Roxb.*

CUCUMIS CITRULLUS. SER. Syn. of Cucurbita citrullus, *Linn.*

CUCUMIS COLOCYNTHIS, LINN.

Citrullus colocynthis, *Schræd.*

Tumbi	BEAS.	Vishola	RUS.
Colocynth gourd	ENG.	Kurtama	SUTLEJ.
Ghurumba	HIND.	Maraghune Khartuma	TRANS-IND,

Fruit.

Hanzal	AR. HIND.	Paikumiti-kai	TAM.
		Indrayan	HIND.

Seeds.

Tukhm	PERS.	Tumma.	PERS.

This plant furnishes the colocynth of the European pharmacopæas. It grows abundantly in most of the arid sandy tracts of the Punjab, from Delhi up to Peshawar, on the Coromandel coast, at Kaira in Guzerat, Tirhut, the Doab, in the deserts by the Jordan and near Sinai, in Turkey and in Nubia. The fruit is about the size of an orange, smooth, and yellow. When ripe it is peeled, and dried in a stove, when it becomes whitish, very dry, and spongy ; in this state it is met with in commerce. It is inodorous, but has an extremely bitter nauseous taste and a disagreeable smell. The plum and seed, produce exceedingly powerful cathartic and emetic effects, and an extract is used in medicine. The fresh root is used as a tooth brush, and dried and powdered is given as a purgative. —*Dr. J. L. Stewart, Royle Pharmacopœa. O'Shaughnessy. Cyc. p.* 252. *Irvine Med. Top.* 209. *Bellew.*

CUCUMIS INDICUS. See Luffa amara.

CUCUMIS MADERASPATANUS. LINN. syn. of Bryonia scabrella.

CUCUMIS MELO. LINN. ; *W. and A.* ; *Roxb.*

Betikh, Musk melon	AR.	Kharbuzeh	PERS.
Khar buj	BENG.	Sarda	PUSHT.
Tha-khwa-hmwæ	BURM.	Paliz	,,
Khirbuza	DUK.	Ghidro	SIND.
Melon ; Sweet melon	ENG.	Rata' Komadu	SINGH.
Kharbuza	HIND.	Mulam pallam	TAM.
Labo-frangi	MALAY.	Mulam pandu	TEL.
Baka kaia	MALEAL.	Karbuja dosa	,,

The native country of this valuable plant is unknown. Linnæus says Tartary, but he does not give his authority. De Candolle says Asia; Roxburgh only knew it in a cultivated state in tropical India; and Professor Royle seems unacquainted with any wild station for it in the Himalaya regions. It is cultivated in Persia and Afghanistan, the Punjab, and all over India. From time immemorial Cashmir has been famous for the excellence and abundance of its melons, which form a staple article of the food of the inhabitants, and the melons of Multan and Jhang are excellent, Dr. J. L. Stewart says that this celebrated fruit rapidly degenerates if sown in the plains. In Kabul it thrives and is in perfection in October and November, when the first frost touches the plant. It is largely taken for sale to the city of Peshawar.—*Roxb.* iii. 720. *Voigt.* 58. *Eng. Cyc. p.* 252. *Dr. J. L. Stewart, p.* 96.

CUCUMIS MOMORDICA, Roxb.; *W. & A.*

Cucumis muricatus *Willd.* | Momordica sativa *Roxb.*

Phunti	Beng.	Kakari kai	Tam.
Phunt	Hind.	Karkata kai	
Tuti	„	Pedda dosa kaia	Tel.
Kakra	Punj.	Mullu dosa kaia	„

Cultivated throughout India; when young is a good substitute for the common cucumber. Seeds now and then ground into a meal. When the fruit is ripe, if eaten with a little sugar, it is little inferior to the melon, and reckoned very wholesome; natives use it in curries.—*Roxb.* iii. 725. *Dr. J. L. Stewart, p.* 97. *Voigt.* 58. *Ainslie, p.* 236.

CUCUMIS MURICATUS. Willd. syn. of Cucumis momordica.

CUCUMIS PSEUDO-COLOCYNTHIS. Royle. A plant of northern India, where it is called "Indrayun," and "Bisloombhee." The fruit is similar in quality to colocynth, and is substituted in northern India for the true article, the real colocynth, and is called by the names applied by Dr. Royle, to his Pseudo-colocynthis.—*O'Shaughnessy,* p. 345. See Cucumis colocynthis.

CUCUMIS PUBESCENS. Willd.; *W. & A.* syn. of Cucumis maderaspatanus, *Roxb.*

Fowl's Cucumber	Eng.	Chibbur	Sindhi.
Pubescent Cucumber		Kekri	Singh.
Kakri	Hind.	Kodi Budinga	Tel.
Bun-gumuk	„	Kodi budama	„
Raushanak	Pers.	Nella budinga	„
Gavakshi Vrikshamu	Sans		

Grows wild in south India, in the Punjab, Hindustan, Bengal, and the peninsula. Its small fruit is eaten by the natives, though they do not cultivate the plant; on ripening it becomes aromatic.—*Roxb.* iii. 723. *Voigt.* 59. *Dr. J. L. Stewart, p.* 97.

CUCUMIS SATIVUS. Linn.

Kusud	Ar.	Kankari	Duk.
Kira	Beng.	Kira-kankarai	„
Susha, also Susa	„	Fakus	Egypt.
Cucumber	Eng.	Khira	Punjab.
Common Cucumber	„	Mutrulla	Sans.
Kira, also Susa	Hind.	Sookasa	„
Antimun	Malay.	Rata Kækari	Singh.
Timun	„	Pipingya	„
Mullen velleri,	Maleal.	Mulu veleri	Tam.
Mullen belleri	„	Vellerikai	„
Caukrikai	„	Dosa kaia	Tel.

The Oil.

Kunkuri-ke binj ka-tel	Duk.	Oil of Cucumber seed	Eng.
Velleriverei yennay	Tam.		

This is commonly grown and largely used all over India, but most Europeans find it difficult to digest. Cucumbers, of the C. sativus and utillisimus, are consumed in immense quantities by the Karens and Burmans, who seem to prefer them large and yellow, rather than pluck them, when green and tender.

The seeds of this and of C. utilissimus are officinal, being considered cooling. This may be the Balam khira, or hill cucumber mentioned by Lowther,—*Mr. Jaffrey. Drs. Roxb.* iii. 720. *Voigt.* 59. *J. L. Stewart, p.* 97, *and Mason.*

CUCUMIS TUBEROSUS. Heyne.

Adulay Kai,	Tam.	Casara Kaia	Tel.
Nellay piku	„		

This is a pot vegetable not much in request, but it is eaten by the common people, who make it into curry. It grows wild in cotton soils of north Tinnevelly. It is very prolific, and on waste lands, headlands &c., in great abundance. A cooly load of tuber gives six large measures of fine flour, considered by the natives who use it as a most excellent bread stuff. One measure of the flour is considered equal to two measures of the Panicum glossarium, which latter is the staple food of North Tinnevelly. The mode of preparing the flour is simple. The tubers are washed and pealed; then reduced to a bruised mass on a rough stone; after which it is washed precisely like arrowroot; the washing extending over seven or eight days, when the starch is dried in the sun. The flour is almost as white as arrowroot, it is reduced to conjee quite as easily, by pouring boiling water upon a spoonful or two which has been first moistened with cold water. The root is not generally known to the natives, but the fruit, a small capsule used in sweetmeats, is known to them as the Adully. It yields a pure starch, and as a means of supporting life, merely, it is probably as valuable as arrowroot, sago, tapioca, or any other starch. The ultimate dietetical action of all starches is the same, and the preference given to arrowroot is due to its flavour alone. This one makes a good jelly, but it smells and tastes slightly of linseed oil, and leaves a faint bitter taste upon the palate; and unless this be due to want of care in its preparation and can be got rid of, it would not be acceptable to Europeans. As to the nutritious quality of starch, modern research has shown it to be deficient in flesh-producing properties, and that it can only be called strengthening when mixed, as it usually is with milk, or flour containing gluten. It would therefore appear to be a mistake to suppose that as an article of diet it can be equal to twice the quantity of flour of Panicum grossarium, which, in all probability, besides its starch, contains a considerable quantity of gluten. The starch granules in C. tuberosa are compound, and they have in consequence a very different shape from the various arrowroot starches from which they can be easily distinguished with the microscope. They vary much in size, the smaller having a diameter less than 1-11,000ths of an inch. They depolarize, and the usual black dot can be seen in granules of 1-5,000ths of an inch in diameter.—*Roxb. Ainslie, p.* 336. *Revd. James. F. Kearns, Missionary S.P.G. Captain J. Mitchell, Officer in charge of the Govt. Cent. Museum.Madras Agri-Horticultural Society's Proceedings, April* 1862.

CUCUMIS TURBINATUS, C. trigonus and C. integrifolia, are plants of Bengal and peninsular India.—*Roxb.* iii. 723.

CUCUMIS USITATA.

Vellaree-kai,	TAM.	Dosa Kaia	TEL.

Cucumber is commonly cultivated by the natives and eaten when ripe as a dessert. Cucumis sativus and utillissimus are also cultivated to a great extent and generally eaten green, without any preparation whatever: the country cucumber is very bitter at both ends, and these should be cut off before preparing for salad. To the people this is a valuable fruit.—*Jaffrey.* See Vegetables of Southern India.

CUCUMIS UTILISSIMUS. ROXB.; *W. & A.*

Kiza-ut-taul	AR.	Kakri; Kakni	HIND.
Kankur, also Karkti	BENG	Khyar-i-badraug	PERS.
Tha-khwa	„	Dosa; Nakka Dosa,	TEL
Field cucumber	ENG.	Pandili dosa	„
Gurkel lauge	GER.	Dosa kaia	

Cultivated throughout India and to a considerable elevation in the Punjab. Dr. Stewart has seen it at 6,000 feet, on the Ravi, in the hills. This gourd attains 2 or 2½ feet, and is stated to reach the extraordinary length of 5 feet. When ripe, if carefully gathered and suspended, it will keep good for several months, from which circumstance they are valuable for long voyages. It is pickled when half grown. The seeds, like those of the other cucurbitaceous fruits, contain much farinaceous matter blended with a large portion of mild oil; the natives dry and grind them into a meal, which they employ as an article of diet; they also express a mild oil from them, which they use in food and to burn in their lamps. Experiments, as well as analogy, prove these seeds to be highly nourishing and well deserving of a more extensive culture than is bestowed on them at present. The powder of the toasted seeds mixed with sugar is said to be a powerful diuretic, and serviceable in promoting the passage of sand or gravel. In Roxburgh's time, this agriculture was chiefly confined to the Guntoor Circar, where these seeds formed a considerable branch of commerce.—*Roxburgh's Flora Indica, Vol.* iii. *pp.* 721-22. *Cal. Ex.* 1862. *Honigberger*, ii. *p.* 265. *Dr. Stewart, p.* 97. *Voigt p.* 58. *O'Shaughnessy, p.* 343. *Eng. Cyc. p.* 252.

CUCURBITACEÆ. A natural order of climbing or creeping plants, the Gourd tribe, chiefly natives of hot countries, ranged by Meisner under 35, and by Endlicher under 28 genera. Of these there occur in Egypt, Abyssinia and Arabia 8; in Astracan and Persia and the Levant 3; in China and Japan 5, and in the East Indies 160 species, of which 46 are natives of India.

Achmandra.	4	Karivia.	2
Benincasa.	1	Laginaria.	1
Bryonia.	31	Luffa.	16
Bryonopsis.	1	Melothria.	1
Citrullus.	2	Momordica.	12
Coccinia.	1	Mukia.	1 or 2
Cucumis.	12	Pilogyne.	1
Cucurbita.	4	Sicyos.	2
Erythropalum.	1	Trichosanthes.	25
Herpetospermum.	1	Zehneria.	2
Gymnopetalum.			

Some of the species afford cathartics of remarkable power, others have useful edible fruits. The fruit varies much in size, form, and external characters, but is generally fleshy within, and its pulp is often so saturated with water that it cannot be dried. The roots of most of the order contain starch, often associated with an acrid poisonous matter, which can be separated by washing the powdered root with water, in which the acrid matter dissolves, while the starch is left. The seeds of most of the order are of a mild sweet taste, give good emulsions with water, and yield a fixed oil by expression. Few of the plants of this order are indigenous in Europe. In tropical countries this order gives the inhabitants a large portion of their food, which it often affords of the finest quality in the most arid deserts or on barren swamps and islands. In Persia, China and Cashmere, they are cultivated on the lakes, on the floating collections of weeds common in these localities; in India, they are very abundant, either in the wild or cultivated state. According to Dr. Hunter the *Cucurbitaceæ* abound in fibres of great length. The following is a list of the chief dietetical species.

Cucurbita pepo. Pumpkin.	Meetha kuddoo. The seeds of these yield oil by expression, and are considered "cooling in medicine."
,, citrullus, ...	Turbooz. A var. Tentsee.
Benincasa cerifera, ...	Peetha.
Cucumis melo ; Melon ...	Kurbooza. Seeds oily, and readily become rancid.
C. madaraspatensis, ...	Roxb. Fl. Ind. iii. p. 723.
C. patescens, ...	Wild, common near Saharunpore, becomes aromatic on ripening.
C. momordica, ...	Phoot.
C. sativus. Cucumber, ...	Kheera. Fruit contain sugar, seeds yield a mild oil.
C. utilissimus, ...	Kukree.
Luffa pentandra, ...	Ghia.
,, acutangula, ...	Kalee-tori.
Momordica charantia, ...	Kurella. Fruit slightly bitter and tonic.
Trichosanthes anguina, ...	Chuchinga.
,, ,, dioica, ...	Palwal.
,, ,, cucumerina, ...	Junglee-chuchinga.

—*Royle, p.* 219. *O'Shaughnessy, p.* 351.

CUCURBITA, a genus of the Cucurbitaceæ, has six species, but only four have been cultivated, viz. C. maxima, C. ovifera and C. pepo, which include all pumpkins, gourds, squashes and vegetable marrow, and C. moschata, the water melon. Of these, there are innumerable varieties. The Burmese names for species are Boo kha, Thaka hai Sgau ; Thai than Sgau. A number of melon, cucumber and "kadu" seeds are included among oil seeds, on account of their yielding oil.—*Darwin. Mason. Powell.*

CUCURBITA ALBA. ROXB. syn. of Benincasa cerifera, *Savi.*

CUCURBITA AURANTIA, the Orange-Gourd, is rather more tender than the other species.—*Engl. Cyc. p.* 253.

CUCURBITA CERIFERA. FISH. syn. of Cucumis citrullus, *Serr.*

CUCURBITA CITRULLUS. LINN.

Cucumus citrullis, *Serr.*

Belikh-zichi	AR.	Tarboozah	PERS.
Tarmuj, also Tarbuz	BENG.	Chaya pula	SANS.
Titoo Laoo	,,	Kuttoe wombi	,,
Turbuz	DUK.	Hindano	SIND.
Water melon	ENG.	Cauho	,,
Samoka also Turbuz	HIND	Pitcha ghadi	SINGH.
Jamauka	,,	Komadu	,,
Lamuja	LAMPUNG.	Pitcha Shakara Komati, also Pitchakai, also Pitchi pallam	TAM.
Mandeki	MALAY.		
Samangka	,,		
Pataka	..	Darbuje	TEL.
Hinduaneh	PERS.		

In India, the water melon is cultivated in river beds and in alluvial deposits of lakes, tanks, &c., where abundance of water can be had ; it is used as a dessert. It is generally considered to be the melon of the Jews, mentioned in many parts of the Bible. The juice of this fruit is very cooling, and is said to do well for a cooling drink in typhus fever.—*Powell. Panj. Prod. Eng. Cyc. p.* 253. *Jaffrey.* See Vegetables of Southern India.

CUCURBITA HISPIDA, WILLDE; *Ainslie.*

Benincasa cerifera	*Savi.*	Cucurbita pepo	*Roxb.*
Cucurbita ,,	*Fisch.*		
Koomra	BENG.	Karkaroo	SANS.
Koshnauto	,,	Alu puhul	SINGH.
Pandri chikki	BOMBAY.	Pusnikai	TAM.
Mitta kaddu	DUK.	Gumadi-kaia	TEL.
Pumpkin	ENG.	Boordoo Goomadoo	,,
White Gourd	,,	Budady ,,	,,
Red pumpkin	,,	Potti goomadi	,,
Kambalam	MALEAL.		

In India the young unripe fruit of this pumpkin is eaten by all the natives, and it is used as a pot-vegetable; being much and justly esteemed both by Europeans and Natives. The variety called in Tamul Kaliana Poosnikai, is white, and from old custom, and as a religious rite, it must make a dish at every Tamul marriage dinner : it is supposed to ensure prosperity to the wedded pair.—*Ainslie, p.* 244.

CUCURBITA LAGENARIA, LINN.

Lagenaria vulgaris, *Serr.*

Kodoo	BENG.	Bellashora	MALEAL.
Laoo		Kaddu	PERS.
Toomba	,,	Ulavoo	SANS.
Hurreakaddu,	DUK. SIND.	Teao	SIND.
Quara tauvil	EGYPT.	Diyalaba	SINGH.
,, m'davar	..	Shora kai	
Dubha dibhe	,,	Churaykai	TAM.
Bottle Gourd	ENG.	Anapa kaia	TEL.
White pumpkin		Ala burn	,,
Calabash	,,	Auuga kaya	,,
Kaddu	HIND.	Gubba kaya	,,
Tomra kaddu	,,	Kunda muga	,,
Labo ambou	MALAY.	Nelanuga	

Several varieties of this are largely cultivated in India and are eaten dressed in different ways. The long white gourds are hollowed out and made into buoys for rafts for crossing rivers. The large round kind are used for making a kind of stringed instrument like a "sitar", called in Tamul Kinnayri, and are hence termed Kinnayri Chooraykai. A longer and narrow sort are employed in making the wind instruments called in Tamul Maghadi with which the snake-men (Pamoo Poodarer, Tam.) entice snakes from their holes. In China the dried bottle-gourds are tied to the backs of children on board the boats to assist them in floating if they should unluckily fall overboard. The dried outer rind of the fruit is hard, and is used as a bottle called the fakir's bottle. A wild variety Tita-Laoo, is poisonous.—*Voigt. Ainslie's Materia Medica, p.* 172,238.

CUCURBITA LOBATA.

Tinda, PANJAB.

In the Punjab this is a small round gourd when young, at which time it makes a most delicious vegetable for the table : the fruit is not bigger than a small turnip.—*Powell Hand Book.*

CUCURBITA MAXIMA. Duch. *W. & A.*

Cucurbita melopepo, *Roxb.* iii. 719.

Suphura Kumra	Beng.	Al ?	Kanawar.
Sufri Kumra	,,	Daghan	Ladak.
Shwæ pha yung	Burm.	Shakari or Shakara shora	Maleal.
Pha yung kha	,,	Kadu safed	Pers.
Large common pumpkin	Eng.	Pushiny kaia	Tam.
Common large gourd	,,	,, kiray	,,
Melon	,,	Gumaddikaia	Tel.
Red or Spuash gourd	,,	,, kura	,,
Mitha Kaddu ?	Hind.	Kushmandamu : Bagala; erra gummadi	,,
Halwa ,, ?	,,		

Cultivated throughout India, in Kashmir up to 6000 or 9000 feet, and in Ladak up to 10,500 feet. It is made to trail over houses and trees. It needs much water and good soil. The fruit is very large; when boiled it tastes like a young carrot, and is used in various ways; its leaves are boiled as greens. —*Voigt* 59 *Dr. J. L. Stewart Gen. Med. Top. p.* 209.

CUCURBITA OVIFERA. Linn.

Vegetable marrow	Eng.	Simaipusini kai	Tam.
Egg bearing gourd	,,		

This is the most wholesome of the cucurbitaceæ, and is largely grown by the market gardeners of India. It is said to be indigenous at Astrachan: it is an excellent vegetable of easy culture in good rich soil.—*Jaffrey, Voigt. p.* 59. See Vegetables of Southern India.

CUCURBITA PEPO. Roxb. Syn. of Benincasa cerifera, *Savi.* See Cucumber seed oil, Cucurbitaceæ. Gourds. Oil.

CUORA AMBOINENSIS, Daud. A tortoise of Malacca and Tenasserim of the family Testudinidæ, order Chelonia, Section A. or Shielded Reptiles, which may be thus shown

Sec. A. Cataphracta. Shielded Reptiles.

ORDER. CHELONIA.

Fam. Testudinidæ.

Testudo Indica, *Gmel.* Galap.
,, radiata, *Shaw.* Madag.
,, stellata, *Shaw.* Vizag.
,, platynotus, *Blyth.* Burdwan.
,, elongata, *Blyth.* Arakan, Tenasserim.
Homopus Horsfieldii, *Gray.* Afghanistan.

Fam. Geoemydidæ

Manouria Emys, *Gray.* Moiden.
Geoemyda grandis, *Gray.* Tenasserim.
,, tricarinata, *Blyth.* Chaibassa,
Cuora Amboinensis, *Daud.* Malacca, Tenasserim,
Cyclemis orbiculata, *Bell.* Burmah.

Fam. Emydidæ.

Emys nuchalis, *Blyth.* Java.
,, Hamiltonii, *Gray.* Calcutta.
,, trijuga, *Schweigg.* Arakan, Madras.
,, nigra, *Blyth.* Tenasserim.
,, sebæ.
Tetraonyx Lessonii, Calcutta, Tenasserim. *Dum. and Bib.*
Batagur lineatus, *Gray.* S. E. India.
,, thungii, *Gray.* Calcutta.
,, dhongoka, *Gray.* Central India.
,, berdmoreii, *Blyth.* Pegu.
,, ocellata, *Dum.* Calcutta.
,, trivittata, *Dum.* Nival.
Pangshura tectum, *Bell.* Calcutta.
,, tentori, *Gray.* Indus.
,, flaviventer, *Gunth.* Bengal.
,, Smith, *Gunth.* Bengal.
Platysternum megacephalum, *Gray.* Martaban.

Fam. Trionycidæ.

Emyda granosa, *Gray.* Calcutta.
,, Ceylonensis, *Gray.* Ceylon.
Trionyx Gangeticus, *C. and V.* Bengal.
,, Guntherii, *Gray.* Arakan.
Chitra Indica, *Gray.* Hooghly.

Fam. Chelonidæ.

Sphargis coriacea, *Linn.* Tenasserim coast.
Caretta imbricata, *Schweigg.* Bay of Bengal.
Cayana olivacea, *Eschs.* Bay of Bengal.
Chelonia virgata, *Schweigg.* Bay of Bengal.

CUDBEAR, is a powder procured from the Lichen tartaricus, a plant found in Iceland, used in dyeing violet, purple, or crimson. Its colors are not durable when it is employed alone, and it is therefore used as a body to other expensive dyes, as indigo, cochineal, &c., making them more lively. It is used but little by the Chinese, and the demand in that market is not great.—*Compendious Description.* See Dyes.

CUDDALORE, a town on the Malabar coast, in lat. 11° 43′ N., long. 79° 50′ E.—*Horsburgh.*

CUDDAM. Hind. Nauclea cadamba, properly Kaddamba.

CUDDAPAH, one of the two great collectorates (Bellary the other,) into which the Ceded Districts are divided. It lies between Lat. 13° 5′ and 16° 20′ Long. 77° 48′ and 79° 50′. It is bounded on the north by part of the Kurnool country and the district of Guntoor, on the south by Mysore and North Arcot, on the west by Bellary and Kurnool, and on the east by Nellore and part of North Arcot. Of the great religious institutions in the south of India are Sri Sailam in Cuddapah, Conjeveram, Chellambram, Srirangam, &c. There are also many religious edifices of great architectural merit, very worthy of being depicted and preserved for the beauty of their sculpture and elegance of their design, such as the stone mantapam in the fort at Vellore, latterly used as an arsenal, the temples at Tanjore, Gangondaram and Tribhuwanam, the ruins of Bijanagar, the pagodas at Leepichi in Bellary, and of Tarpatry in Cuddapah, with many others equally worthy of admiration, in secluded and desert places, little known beyond their immediate neighbourhood, which would doubtless reward the institution of careful inquiries. Nearly all the finest buildings of early times have been constructed of stone, while the edifices erected within the past 500 years, comprising some of the most stupendous piles at present to be met with, are of brick. If the range of inquiry is extended to Hyderabad and Mysore, the list might be greatly extended. The Nizam's territories comprehend the seats of some of the greatest and most powerful sovereignties of the Dekhan, such as Calyan, the capital of the Western Chalukya and Bijala raya dynasties; Devagiri, or Deoghur, the capital of the Yadava; Warangal that of the Kakateya; and the great mahommedan principalities of Gulburgah, subsequently split into the subordinate powers of Bijapur the Adil Shahi, Ahmednaggar Nizam Shahi, of Golconda Kutub Shahi, Berar Imad Shahi and of Beder Birud Shahi, &c.

The town of Cuddapah, in L. 14° 28′ 8″ N., L. 78° 48′ E, is north-east of Madras, 364 feet above the sea. It gives its name to a revenue collectorate with a population of 1,451,921. Cuddapah town is situated in a fork of land about seven miles to the west from the union of the Nallamallai and Yellamallai ranges of hills. It has hilly and level lands, and much black soil suited for indigo and cotton growth, but few trees. The Pennar river flows through it. The soil is saline. Diamonds are washed for in its rivers.

CUDDOO also Kali Kutki. GUZ. and HIND. Helleborus niger.

CUDIRÆ PASJAN YENNAI. TAM. Oil of Sterculia fœtida.

CUERO. SP. Leather.

CUFIC WRITING. See Khalifah.

CUIR. FR. Leather.

CUIR DE RUSSIE. FR. Russia leather.

CUIVRE. FR. Copper.

CUIVRE JAUNE, also **LAINOU.** FR. Brass.

CULA. SANSC. A race.

CULAKA, ALSO **KUTAKA,** ALSO **VESHAMOSTI BEJUM.** SANS. Nux vomica.

CULEMBERRI, OR **CALAMBERRI.** SINGH. Calamander wood.

CULLEN, General, of the Madras Artillery, long a Resident at the court of the rajah of Travancore; for half a century a distinguished contributor to physical science in India. Author of Geological features from Madras to Bellary, Mad. Lit. Trans. 1827, vol. I, part I, 33. Account of the fall of rain at different stations on the Western Ghauts, Rep. Brit. Ass. 1844, 1846, vol. II. 23. On the influence of trees on climate. Mad. Lit. Trans. vol. XV. 450. He was an old and faithful soldier—one of the number who assisted the late East India Company in laying the foundations of an empire which has become the wonder of modern civilization. He was of the season of 1804. He served in the field at Candeish and Berar in 1805 and 1806 with the Hyderabad Subsidiary Force; was in command of a brigade of 6 pounders with the 2nd Cavalry and 7th Regiment N. I. under Captain H. Scott at the surprise of a large body of Mahrattas in December 1805, when four guns, with all their camp and baggage were captured. He was present at the attack and capture of St. Denis, Isle of Mauritius and Bourbon in 1810, and with the force employed against Kurnool in 1815. He attained the rank of Colonel on 1st October 1842, and he died on the twentieth anniversary of this event. He was gazetted a Lieutenant General on the 11th November 1851. He was endowed with literary and political abilities of a very high order, and his displomatic skill would have won undoubted laurels in a more stirring arena than Travancore, even in the most trying times. As a geologist and man of science he was favourably known to the scientific world; and the papers contributed by him to the journals of various learned societies have been among the most valuable and interesting that have appeared in those publications. He was a warm patron of science, and spared neither expense nor individual effort in promoting the cause, and advancing scientific investigations. He had been on the staff of Sir Frederick Adam, Governor of Madras, and subsequently Commissary General of the same Presidency. On the decease of Lieutenant Colonel T. Maclean, General Cullen was appointed Resident of Travancore and Cochin on the 8th September 1840, and retired on the 11th January 1860; so that he remained in office for nearly 20 years. His total period of service extended over 58 years and 8 months, spent in India, with the exception of a furlough of 3 years and one month to England. During his tenure of office as Resident, he succeeded in establishing the influence of the Government in the councils of the native states, on a solid and permanent basis; and never at any former period of our rule was British ascendency in Travancore and Cochin greater than when he resigned his important charge into the hands of his successor. Born 17th May 1785. He died at Allepey on the 1st October 1862.

CULLENIA EXCELSA. W. Ic.

Durio Zeylanicus, *Gardner*.

Kattoo-bodde	SINGH.	Malai kouji maram	TAM.
Kattoo heriteya	,,		

A tree of the southern part of the peninsula of India, and common in the Central Province of Ceylon, at an elevation of from 2,000 to 5,000 feet. It is a very large and tall tree, trunk straight, from 60 to 80 feet high. Wood white, rather open grained, apparently not very good, but the outside wood only was examined. Under the microscope, its longitudinal section is very peculiar; altogether such as Dr. Wight had not elsewhere observed. Dr. Gibson had not met with this tree within the Bombay bounds.—*Drs*, *Wight and Gibson. Thwaites En. Plant. Zeyl. Part. I. p.* 28—9.

CULLEN'S LIQUID FOR PRESERVING WOOD and iron is a mixture of coal tar, quick-lime, and powdered charcoal, in the proportion of two measures (by bulk) of the tar, to one measure of the lime and one of the charcoal. Lime is freely dissolved in coal tar, with which it forms a cement which takes readily to wood, brick, iron, or other building materials however wet, and which sets with nearly the cohesion of mortar or hydraulic lime. With the addition of the charcoal, mixed in an exceedingly fine state, it is found that white ants, which attack and destroy creosoted wood, were effectually excluded, carbon, it appears, being especially poisonous to them. Six pieces of deodar, or Himalaya pine, were buried in a place particularly infested with white ants, three of the pieces being protected by Cullen's preparation, and the three others being left in their natural state. At the end of five months, the blocks were dug up, when those which had been coated were found to be as sound as when put down, while those which had been left unprotected were found riddled with the perforations of the ants.

In the case of iron, creosote is believed to be a complete protection in ordinary soils, but in the saltpetre soil of the provinces of India, creosote is said to be of no use whatever. Six pieces of thin iron were buried, three being coated with Cullen's preparation, while the others were left as they were cut from the original plate; the coated iron was completely protected for the time tried, whereas the pieces put down in their ordinary state were found to have been much rusted.

CULILAWAN BARK is obtained from several species of Cinnamomum trees.

CULLI MULAIAN. TAM. Caralluma adscendens.

CULNAH, a town on the Bhagarathi river.

CULTIVATOR.

Ryot HIND. | Glapa TIB.

The cultivators of India belong to a few races, the Jat, the Kunbi, the Kurmi, the Mali and the Vellala. The ryot or cultivator is the proprietor of the soil in Me'war. He compares his right there to the "a'khye d'hooba" which no vicissitudes can destroy. He calls the land his bapota or patrimonial inheritance. He has Menu in support of his claim, as he says, "cultivated land is the property of him who cut away the wood, or who cleared and tilled it:" an ordinance binding on the whole hindoo race, and which no international wars or conquest could overturn.—*Tod's Rajasthan, Vol.* i. *p.* 496.

CULTIVATION. See Agriculture. Coffee, Flax, Hemp, Indigo, Opium, Tobacco.

CULTIROSTRES. A tribe of birds.

FAM Ardeadæ.

SUB FAM. Tantalinæ 6 gen. 7 sp., viz. 1 Falcinellus; 1 Geronticus; Thoskiornis; 2 Tantalus; 1 Platalea; 1 Anastomus.

CULU. TAM. also CULUTU. SANS. Dolichos uniflorus.

CULZUM. See Kulzum.

CUMARA GUPTA. See Gapta: Gupta; Inscriptions, p. 378.

CUMBHA, In hindu astronomy the solar sign Aquarius.

CUMBHAYONI. In explanation of the analogy between the vessels emblematic of the Isis of the Nile and the Ganges, there is a festival sacred to the sage Agastya, who presides over the star Canopus, when the sun enters Virgo (Kaniya). The "camacumpa" is then personified under the epithet cumbhayoni, and the votary is instructed to pour water into a sea-shell, in which having placed white flowers and unground rice, turning his face to the south, he offers it with this invocation: "Hail, Cumbhayoni, born in the sight of Mitra and Varuna (the sun and water divinities), bright as the blossom of the *cusa* (grass), who sprung from *Agni* (fire) and Maruta."

CUMBI. TAM. TEL. Gardenia lucida,

Dikamilli, DUK. GUZ. Cumbipisin TAM.
HIND.

The gum is a strong disagreeable smelling gum-resin; procurable in most Indian bazars. It is much used by native doctors as an external application. when dissolved in spirits, for cleaning foul ulcers. It is now used by some European practitioners in case of worms in children.—*Faulkner.*

CUMBIA OR CAMBIA, CAN. Careya arborea.

CUMBI-PISIN. TAM. Gum of Gardenia lucida.

CUMBLE PALLAM. TAM. Morus indica, the mulberry fruit.

CUMBLI. GUZ. HIND. Kamli, also written Cumul and Camal, and also called Camaline, is from the Sanscrit kamal, a blanket, a coarse woollen blanket worn universally by the peasantry of all India, and sold at Rs. 1½ to Rs 100. Cumblies are woven in almost every district of India of the wool of the country, which is spun by hand. The yarn is sized with the juice of the common squill; the woof is beaten with a hand batten (in the way that sailors adopt in forming mats for protecting the rigging) no reed being used: a finer description of cumbly of which the sepoy cloaks were formerly made is manufactured at Bellary or in its neighbourhood. The Mysore cumlies are of superior quality, in black and white colours, and are sold at from Rupees 25 to 100 each; ordinary sizes 4 to 20 Rs.

each. Bellary cumblies are well made, but are not of so high value as those of the Mysore District; they are 6 cubits long by 3. The cumbly is usually made in pieces of two or three feet broad, and five or six or more long, and generally very coarse, of a dark or black colour. Sometimes, however, they are manufactured larger, and finer, and striped, or spotted, black and white. There may be some connection between the Sanscrit word Kamal and the Grecian Chlamus, and the Latin Chlamys. It is barely possible also it may not be unconnected with the Arabic Kamis, from which we have the Italian Camicia, the Portuguese Camisa, and the French Chemise. The Chlamys was generally like the Cumul, made of wool, and in shape it was much the same, being half the breadth of its length. A similar connection may perhaps exist between the Persian and Hindee Suya, the Latin Sigum, and the modern Spanish Saya. Good cumuls are made in Ulwur and in the neighbourhood of Meerapor in Meerut. The Sansla Cumul of Meerut sometimes sells as high as twenty-five rupees. It is made of the wool of lambkins, shorn about three days after their birth.—*Elliot Supp. Gloss. Hindu Infanticide, p.* 195.

CUMBI. TAM. Pencillaria spicata.

CUMBUM, a town in the eastern part of the Cuddapah district, has a tank seven or eight miles in circumference.

CUMIN. The black cumin of Scripture is the Nigella sativa, the μελανθιον of Hippocrates and Dioscorides. The Helleborus niger however has also been named cumin.

CUMIN DES PRES. FR. Caraway seed.

CUMINO. IT. Cumin seed.

CUMIN SEED.

Kamun ; Kemun,	AR.	Hemeron	GR.
Zira, jira safed,	BENG.	Aithiopikon	,,
	GUZ. HIND. PERS.	Kammon	HEB.
Zee-ya	BURM.	Cumino, Comino	IT.
Dze-ya	,,	CuminumCyminum	LAT.
Jiraga,	CAN.	Jintan	MALA.
Kummen	DAN.	Cominho	PORT.
Shah zira	DUK.	Jirana, Jiraka, Ajaji	SAN.
Komyn	DUT.	Jeruka	,,
Common Cumin	ENG.	Duru	SINGH.
White Cumin	,,	Comino	SP.
Cumin	FR.	Siragum	TAM.
Kumin	GER.	Jilakarra	TEL.
Kuminon	GR.	Kemmum	TURK.

Cumin seeds, the fruits of Cuminum cyminum, are of an ash-grey or light brown colour, oval. linear, flat on one side, convex and striated on the other, aromatic, odour dependent on a volatile oil which is stored up in the seed-coat. Taste warm, bitterish, and aromatic, but not so agreeable as anise. The albumen is insipid. The plant is probably a native of Asia, and was made known to the Greeks from Egypt. It is extensively cultivated in the East, but has long been introduced into the south of Europe, Sicily and Malta. This is found in the Sutlej valley between Rampur and Sungnam at an elevation of 7,000 to 9,000 feet. Abundant in pasture, seeds, exported to the plains. 16 cwts. of the fruit yield about 44 lbs. of the oil, which has a pale yellow colour and is limpid, of a disagreeable smell and acrid taste. Sp. Gr. 0. 345. The seeds are used as a condiment in India, and the oil is used in medicine; it is a stimulant carminative. The seeds were formerly much employed as an external application in Emplastrum and Cataplasma Cumini, and still by Jews in the process of circumcision. The seed is particularly prized by the mahomedans, who season their cakes with it. Dr. Ainslie thought that much of what is used in Madras was brought from China, and from the Gulph of Persia.—*Drs. Ainslie. Mat. Med. p.* 266. *Roxb.* 292. *Royle. Stewart. Mason. Cleghorn. O'Shaughnessy, p.* 367. *Faulkner. McCulloch.*

CUMIS. See Koh.

CUMMI MARAM. TAM. Gmelina arborea.

CUMMUL, properly COMMAL. TAM. an article of female jewellery.

CUMMUM, a town in the Cuddapah district, its tank is seven or eight miles in circumference.

CUMPAS—? a light brown coloured wood of Penang, a large tree; used only for planks.

CUMRBAND. HIND. Waist belt, literally a loin girder. Kamar-bandhna means literally to gird up the loins.

CUMURUNGA OR KAMARANGA. BENG. Averrhoa carambola.

CUNDA, properly Canda Gadda. TEL. Root of Tacca pinnatifida.

CUNDALAH PALLAH—? a bamboo coloured wood of Travancore; used for making sandals.

CUNDAL PANI MARAM. TAM. Caryota urens.

CUNDAMANNI. TAM. Abrus precatorius.

CUNDAPORE RIVER, on the coast of Canara, in lat. 13° 39′ N., is only navigable by boats.—*Horsburgh.*

CUND BARANGHI. DUK. See Gunta baringa.

CUNEIFORM CHARACTER, also called the arrow-headed, also the wedge-shaped character, was used for the Bactro-Medo-Persian language of the dynasty of the Achemenidæ. It was first observed at Be-situn, a little village at the foot of rocky mountains, which are covered with bas reliefs that were first decyphered by Burnouf and Lassen, afterwards by Rawlinson. The most important of the inscriptions is the list in the Naksh-i-Rustum of the Iranian nations subject to Darius, which the Persians attribute to the chisel of their famous sculptor Farhad. A description of them is to be found in Sir John Malcolm's Persia. Enormous marble capitols of columns are to be seen at Besitun. There are two tablets. The one containing a mutilated Greek inscription, declaring it to be the work of Gotarzes; the other a Persipolitan sculpture, adorned with nearly 1,000 lines of cuneiform writing, exhibiting the religious vows of Darius Hystaspes after his return from the destruction of Babylon, on the revolt of its udapati or governor, Nebukadnazzar, the son of Nebunet. Both C'tesias and Isodore mention a statue and pillar of Semiramis at Baptane, but the sculptures of Semiramis and the inscription in Syriac characters have wholly disappeared. Baghistan is traditionally described as the pleasure grounds of Semiramis. According to Sir H. Rawlinson—D'Anville first suggested the identity of Be-situn with the Baghistane of the Greeks, and there are good grounds, from the ancient notices of this place, for supposing him to be correct. Etymologically considered, the evidence is even more striking. To solve all difficulties it may, perhaps, he adds, be admitted that the sculpture did really exist in the lower part of the rock, scarped by the Assyrian queen; and that Khosroo Parvez, when he was preparing to make the scarped surface the back wall of his palace, and for that purpose began to excavate deeper in the mountain, destroyed the sculptures, and removed all further trace of them. With regard to the pillar of Semiramis it is very curious that an Oriental writer of the 15th century should describe the rock of Besitun, from his own observation, as though it were sculptured in the form of a minareh, or minaret. Certainly nothing of the kind now remains. The cuneiform or wedge-like-writing sculptures that still exist, are supposed to record inscriptions of the times of Cyrus, Darius, Xerxes and Artaxerxes. They have been discovered on the solitary monument of Cyrus, on the Murghab, on the ruins of Persepolis, on the rocks of Besitun, near the frontiers of Media; and on the precipice of Van in Armenia. Grotefend in 1802 first ascertained that these were letters, and to be read from left to right, but Munter, Tychsen, Burnouf, Lassen and Rawlinson, have laboured so that we now have translations, grammars and dictionaries. Their language is ancient Persian, before that of the Zend, which represents the Persian language previous to the time of Darius. The existence of bricks with cuneiform characters among the rivers of Balkh, General Ferrier says, had been remarked by previous travellers, and is of much interest, as he adds, no other similar relics are known so far to the east. Sir Henry Rawlinson suggests that they may belong to the Kushan (a famous Scythian race) who held Balkh in remote antiquity, and whose bricks, stamped with cuneiform Scythic legends, are also found at Susa, and on the shores of the Persain Gulf. M. Ferrier found great numbers of baked bricks, nearly three feet long and four inches thick, scattered about the citadel of Furrah, an ancient town which was plundered by Chengis Khan. That their origin was certainly anterior to that of the town was plainly indicated by the inscriptions upon them, in the cuneiform character. The existence of bricks with cuneiform characters at Furrah is very important, and is not mentioned by any other traveller. The size of the bricks is also remarkable. The only place where bricks of so large a size have been found is in the kitchen of Sardanapalus, at Calah or Nimrud. Bunsen says the first cuneiform character was Median or west Iranian, and is to be distinguished from the language of the Zend books, which is East Iranian or Old Bactrian, worn down.—*Bunsen* iii. p. 457. 570, *Ed. Ferrier. Journ.* p. 207, 393.

CUNG CUNG TAOU, a group of islands in the gulf of Pe-Tche-Lee.

CUNGHILAM. Tel. Dammer.

CUNGHU. Sans. Pencillaria spicata.

CUNGNI. Hindui. Setaria italica.

CUNG-QUA, a resting place for travellers, or rather for officers of government in Lew Chew. The Cung-qua corresponds very nearly to the Turkish khan, except that, being used only by persons of some consideration, it is in every respect far more neat and elegant. The house resembles a private dwelling of the better class.—*American Expedition to Japan, page* 189.

CUNJAN KORE. Tam. Basella alba, Ocimum album.

CUNNINGHAM. Four brothers of this name, sons of Allan Cunningham, sought a career in India, two of whom rose to distinction.

Cunningham, J. D. An officer of the Bengal Engineers, an extensive contributor, chiefly of Archeological subjects, to the Journal of the Bengal Asiatic Society. A distinguished antiquary, statist, and geographer; Resident at Bhopal. Ob. 1851. Author of Description of Kunawar in the Bl. As. Trans. vol. XIII. part 1, 1844.—On the ruins of Puthahree, Ibid, 1848, vol. XVII. part 1, 305.—On the lingam of Bhojpur, Ibid, 154.—Notes on the antiquities within the districts of the Bhopal agency, &c., Ibid, 1847, 739—History of the Seikhs. Lond. 1829; Cal. Rev. No. XXII.—On the ruins of the Buddhist city of

Samkassa, Lond. As. Trans. vol. VII. 231; As. Trans. vol. VII.

Cunningham, Capt. A., of the Bengal Engineers. Author of Discovery of Buddhist city of Samkassa, Lond. As. Trans, vol. VII 242. —Journal of a trip through Kulu and Lahul to the Chumureri lake, in Ladak, Bl. As. Trans. 1848, vol. XVII. 201.—Memorandum detailing the boundary between the territories of Maharaja Goolab Sing and British India, &c., Ibid, 295.—Verification of the itinerary of Hwan Thsang through Ariana and India, Ibid, 476.—Proposed archæological investigation, Ibid, 535.—Description of ancient gems and seals from Bactria, the Punjaub, and India, Ibid, 1841, 147.—Essay on the Arian order of architecture, as exhibited in the temples of Kashmir, Ibid, 1848, 241.—Descriptions of, and deductions from the consideration of, some new Bactrian coins, Ibid, 1840, vol. IX. 867, 1217.—Bhilsa Topes, London 1858. *Dr. Buist's Catalogue.*

CUNNINGHAMIA SINENSIS. R. Br. A tree of Japan.

CUNNINGHAMIA LANCEOLATA. The lance leaved pine, in parts of China, is in great abundance; indeed, the species, and the more common Pinus sinensis, are almost the only trees of any size which grow in some mountainous districts.—*Fortune's Wanderings, p.* 38. See Evergreens.

CUNTAKA, also SHAKHNI. Sans. See Mulu-karang varé patté,

CUOJA. It. Hides. Leather. Cuojo di Bufalo. It. Buff. Cuojo di Russia. It. Russia Leather.

CUON PRIMŒVUS. The wild dog of India. See Canis. Mammalia.

CUP. Several of the drinking races of India and Asia still use the cup or piala to welcome the coming guest. Colonel Tod tells us, regarding the love of strong drink and indulgence in it to excess, so deep rooted in the Scandinavian, Asi, and German tribes, and in which they showed their Getic origin, that the Rajpoot is not behind his brethren either of Scythia or Europe. Though prohibited by ordinances which govern the ordinary hindu, the Rajpoot welcomes his guest with the munwar peala, or "cup of request," in which they drown ancient enmities. The heroes of Odin never relished a cup of mead more than the Rajpoot his madhva; and the bards of Scandinavia and Rajwarra are alike eloquent in the praise of the bowl, on which the Bardai exhausts every metaphor, and calls it ambrosial, immortal. "The bard, as he sipped the ambrosia, in which sparkled the ruby seed of the pomegranate, rehearsed the glory of the rajput race. Even in the heaven of Indra the hindu warrior's paradise, akin to Valhalla, the Rajpoot, has his cup which is served by the Apsara, the twin sister of the celestial Hebe of Scania. "I shall quaff full goblets amongst the gods," says the dying Getic warrior, "I die laughing" are sentiments which would be appreciated by a Rajpoot. Cups in use with the Tibetans are made of maple knots produced on the maple by the Balanaphora.—*Tod's Rajasthan, vol. I, p.* 377. See Cupra.

CUPAMENI. Tam. Tel. Acalypha Indica.

CUPANIA. A genus of plants belonging to the nat. ord. Sapindaceæ; C. pentaphylla is figured in Wight's Icones; C. lævis grows in Bourbon and Mauritius; C. Madagascariensis grows in Madagascar.—*Voigt* 945.

CUPANIA CANESCENS. Pers.

Molinæa canescens, *Roxb* | Sapindus tetraphyllus, *Val.*
Amba curb. Mahr.

A tree of the Circars and Kandallah, and common in the upper ghat jungles of the Bombay side. Wood of average quality, white, not equal to Sapindus rubiginosus, and does not bear exposure.—*Drs. Roxb. Gibson, Voigt. p.* 94.

CUPANIA ROXBURGHII. Wight.

Schleichera pentapetala, *Roxb.* ii. 275.

A tree of Sylhet.—*Voigt* 94.

CUPANIA SAPIDA. Cambess.

Blighia sapida, *Kon.*

This tree, a native of Guinea, is cultivated in India for its fruit. It is the "Akee" of Africa, and was introduced into the West Indies by Bligh.—*Voigt. p.* 94.

CUPELA, also Poonag, also Takla. Hind. Rottlera tinctoria.

CUPI. Tam. An article of female jewellery worn on the head.

CUPIA CORYMBOSA, DC. syn. of Stylocoryne webera.

CUPID, amongst the hindu deities, Kama takes the place of Cupid. Ananga is a poetical epithet of the hindu Cupid, literally, incorporeal, from an, privative, and anga, a body.—*Tod's Rajasthan, Vol.* i. p. 255. See Grecian mythology.

CUPPA-MAYNIYA. Singh. A plant, according to the natives, with which cats are so enchanted, that they play with it as they would with a captured mouse, throwing it into the air, watching it till it fall, and crouching to see if it will move. This is evidently the "billi-lotan" of India, one of the cat-rolling plants, species of Valerian, Melissa or Nepeta. —*Tenn. Sk. Nat. History of Ceylon.* p. 32, 33.

CUPPAS. Guz. Hind. Cotton plant, bags for cotton.

CUPPASIA. Guz. Hind. Cotton seeds.

CUPPUM. Tam. The term, on the Coromandel coast, for a fishing hamlet.

CUPRA. A human skull, the calvarium, in

the dialects pronounced cupar, qu. cup, in Saxon ? the calvarium. The cup of the Scandinavian worshippers of Thor, the god of battle, was a human skull, that of the foe, in which they showed their thirst of blood, also borrowed from the chief of the hindu triad. Har, the god of battle, leads his heroes in the 'red field of slaughter' with the cupra in his hand, with which he gorges on the blood of the slain.—*Tod.* See Cup.

CUPRESSUS, a genus of plants of the natural order Pinaceæ, of which there are several species. C. Australis, *Pers*, is a tree of N. Holland ; C. fastigiata, *Wall.*, C. funebris of China, and the Himalaya, C. glauca, *Lam*, the Goa Cedar tree of the gardens of Bombay and the Dekhan, a name also applied to the C. Lusitanica, C. sempervirens, *Lin.*, C. horizontalis, the spreading cypress, is a handsome species. The common cypress grows in the Himalayas, in Italy, and the S. E. of Europe, and in Mexico and the southern parts of N. America : C. thuyoides is the white cedar of N. America, where its chips are used medicinally as a stomachic, and C. torulosa, *Lamb*, is the twisted cypress of the Himalaya, Butan, and Neetee.—*Drs. Voigt* 568 ; *Stewart.* 222 ; *Hogg. Veget. Kingdom* ; *Fortune Tea Districts*; *Riddell Gardening.* See Evergreens.

CUPRESSUS FUNEBRIS. The funeral cypress, Eng. Grows in the Himalayas, and in China, and is a species of weeping cypress. It is a most beautiful tree. Fortune says, "It was during one of my daily rambles that I saw the first specimen. About half a mile distant from where I was, I observed a noble-looking fir-tree, about sixty feet in height, having a stem as straight as the Norfolk Island pine, and weeping branches like the willow of St. Helena. Its branches grew at first at right angles to the main stem, then described a graceful curve upwards, and bent again at their points. From these main branches, others long and slender hung down perpendicularly, and gave the whole tree a weeping and graceful form. It reminded me of some of those large and gorgeous chandeliers sometimes seen in theatres and public halls in Europe. Its stem was perfectly straight, like the Cryptomeria, and its leaves were formed like those of the well known arbor-vitæ, only much more slender and graceful.—*Fortune's Tea Districts*, p. 61 *and* 62.

CUPRESSUS GLAUCA.

C. Lusitanica ?		C. Pendula ?
Saras.	Duk.	Goa cedar.

This is a tall, elegant, and graceful tree, well adapted for border walks in a garden, being always green, and a favorite with the natives of India. It grows easily, and is generally planted alternately with the Areca or betel-nut tree. Slips, if taken off before the commencement of the rains, and planted in beds shaded from the sun, take root ; each slip should be six inches apart, and if common care is used, one-fourth of the plants will strike and grow. After that, they may be put out in nursery beds, at the distance of one foot from each other, until required for transplanting to where they are to remain; its leaves have a singularly glaucous colour.—*Riddell, Gardening. Engl. Cyc.* p. 258. *O'Shaughnessy, Bengal Dispensatory.*

CUPRESSUS SEMPERVIRENS. Willde.

Shajr ul Hyat	Arab.	Cypress	Eng.
Saras	Duk.	Sarv	Pers.
Evergreen Cypress	Eng.	Saro	Hind.

The cypress tree is found in gardens in India and North America, but is a native of the warmer parts of Europe, though it has long been transferred to gardens for the sake of its deep coloured, evergreen branches and leaves. Among the ancient inhabitants of the Grecian Archipelago, it was customary, upon the birth of a daughter, to plant a Cupressetum, or grove of cypress trees, to be given to her for a portion : hence every plantation of this kind was called *dos filiæ*, or a daughter's dower. According to Evelyn, the timber of the cypress was of infinite esteem among the ancients. It has been supposed that the durable bridge built over the Euphrates by Semiramis was made of this material, and it is reported that Plato chose it to write his laws on, before brass itself. It is certain that it never rifts or cleaves but with great violence ; and the bitterness of its juice preserves it from worms or putrefaction. The gates of Constantinople, famous for having stood from the time of Constantine to that of Pope Eugene IV., a period of eleven hundred years, were of cypress, and it is described as hard, elastic, and strong. It resists worms, and its odour repels insects from whatever may be contained in a cabinet or chest made of it. The tree grows in the outer Himalaya up to 5,000 feet, and attains a girth 6 to 8 feet, and a height of 40 to 45 feet, and it also grows at Kabul, but Dr. Stewart says its wood is of no especial value there. Its fruits were formerly deemed astringent, and were much used in medicine, but are now obsolete. The oriental physicians used to send their patients labouring under lung diseases to breathe the air of Candia, where the cypress was abundant, in the persuasion that the emanations were particularly wholesome. The precise period or the age to which the tree lives have not been clearly ascertained. In some countries this tree is planted over the graves of the dead as an emblem of immortality. There are several species of this class of evergreen trees.—*Dr. O'Shaugh-*

nessy, p. 621. *Dr. Irvine*, p. 208. *Eng. Cyc.* p. 258. *Book of Trees.* p. 200. *Dr. J. L. Stewart*, p. 222. *Hogg's Veg. Kingdom*, p. 712. *Voigt*. 558.

CUPRESSUS TORULOSA. D. DON.

Devi diar	of RAVI.
Deodar	BEAS and SUTLEJ
Galla	of SUTLEJ.

This tree grows on the Ravi and Beas, on the outer hills near the Sutlej, in Kullu, in Nynee Tal up to 8,000 feet, and Dr Stewart has seen a tree 120 feet high and 15 feet in girth. It grows also in Butani and Niti. The people assert that the wood lasts for centuries, but it seemed to him too soft to be durable, and it is too flexible for posts. In Nynee Tal it is used for roofs. In its eastern localities, the tree is deemed sacred, and is not felled, and in Kullu images are made of its wood.—*Fortune's Tea Districts*, p. 364. *Dr. J. L. Stewart* p. 222. *Voigt*, p. 558.

CUPRUM. LAT. Copper, hence cuprisubacetas, LAT. Verdigris. Cupri Sulphas, Blue Stone. Sulphate of Copper, the Cuprum vitriolatum.

CUPULIFERÆ. See Carpinus.

CURAO, also written Karao, seemingly from "karana," to cause to do, the term given among the Jat, Goojur, Ahir, and other races and tribes in western Hindustan, to concubinage generally; but more especially to marriages of widows with the brother of a deceased husband. The practice, which is also known to the eastward by the name of Oorhuree, in the Deccan of But'hee; and, in other provinces, by the name of Dhureecha, is followed among these classes, but is not very openly confessed even among them, as some degree of discredit is supposed to attach to it. It is only younger brothers who form these connections, elder brothers being prohibited from marrying their younger brother's widows, but among the Jat of Delhi even this is not prohibited. The practice has been common among several nations of the East. The Jews followed this custom, and in Egypt it was admitted for a childless widow to co-habit with a brother of the deceased husband. When the laws of Menu were enacted, Curao appears to have been a recognized institution. But as is not unusual with the Institutes, there is much contradiction between the enactments relating to it. From a consideration of all the passages on the subject, it appears that failure of issue was the point on which the legality turned. He who was begotten according to law on the wife of a man deceased, or impotent, or disordered, after due authority given to her, is called the lawful son of the wife (Ch. IX., v. 176.) From the fact of Draupadi marrying the five Pandoo brothers, we learn that polyandry must have prevailed amongst the races of that period; and if polyandry, the practice of Curao was, no doubt, not uncommon: indeed, Vyasa, the compiler of the Mahabharata, was himself appointed to raise up offspring to his deceased brother. There is perhaps no circumstance which so strongly shows the northern descent of the deified heroes, as this marriage. Herodotus tells us that the practice prevailed among the nomadic Scythians, as it does at present among the Bhotia. The practice is adopted also by the Nair race of Malabar, between whom and the people of the Himalaya, Wilson traces the obscure vestiges of a connection.

Amongst the Jat, Goojur, and Ahir, children born Curao are considered legitimate, and are entitled to inheritance accordingly. Children begotten by the woman previous to Curao, except in the case of fraternal Curao, are known by the name of Kudhelura, and do not inherit the property of the father-in-law.—*Elliot Sup. Gloss. quoting Recherches Phil. sur les Egyptiéns et les Chinois. Selections from the Mahabharata, p. 8 and 66.*

CURAYIA. ALSO **CURAIJA.** GUZ. HIND. Wrightia antidysenterica, Conessi Bark.

CURB, ALSO **CURBUAR**, the Curumbar race. See Curumbar, Dravidian, India, Kurumbar.

CURBAN, ARAB. A sacrifice. See Kurban, Sacrifice.

CURCAS PURGANS. ADANS. Syn. of Jatropha curcas, *Linn.*

CURCULIGO. A genus of plants of the nat. ord. Amaryllaceæ, the Narcissus tribe, of which are known in S. E. Asia

C. brevifolia.
C. ensifolia
C. graminifolia.
C. latifolia.
C. malabarica.
C. orchioides.
C. pauciflora.
C. plicata.
C. recurvata.
C. sumatrana.

C. brevifolia is the Musli-kund of Bombay.

CURCULIGO ORCHIOIDES. GÆRTN.

Telmur mudul, also Tamuli	BENG.
Siah Musli	DUK.
Nia musli	HIND.
Nila pana	MALEAL.
Mussali	SANS.
Nilapanay kalangu	TAM.
Nallatadi Gadda	TEL.

This plant grows in the Eastern Archipelago, and in all parts of India along with other species or varieties. Its tuberous and wrinkled root is in a slight degree bitter and mucilaginous to the taste, and is prescribed in electuary.—*Roxb. Ains. Mat. Med.* p. 94.

CURCULIONIDÆ. A family of coleoptera.

CURCUMA. A genus of plants of the nat. order Zingiberaceæ, growing in the south and east of Asia. The tubers of many species furnish a fecula which is sold as East Indian arrow-root; amongst others may be named C. angustifolia, *Roxb*, grows in Travancore, the N. and S. Konkans, Nagpore and Benares, and is that commonly used for the E. I. arrow-root. C. caulina, *Graham*, of the

Mahableshwar hills, furnishes the Mahableshwar arrow-root. C. pseudo-montana, *Graham*, yields Ratnagherry arrow-root and is probably Roxburgh's C. montana and Royle's C. kuchoor of Sirmore and Bissehur. C. decipiens, *Dalzell*, C. zedoaria, *Roxb.*, and C. amada, *Roxb*, grow on the western side of peninsular India, and all yield feculæ. C. rubescens, which grows in Bengal and Travancore, and C. leucorrhiza are similarly used. The species known in the south and east of Asia are about forty in number, of which may be named

ærruginea.
amada.
angustifolia.
aromatica.
attenuata.
cæsia.
caulina.
comosa.
cordata.
elata.
ferruginea.
grandiflora.
latifolia.
leucorrhiza.
longa.
montana.
neilgherriensis.
ornata.
parviflora.
petiolata.
plicata.
pseudo montana.
reclinata.
roscœana.
rubescens.
strobilina.
viridiflora.
xanthorrhiza.
zedoaria.

East India arrowroot is procured in part from Curcuma angustifolia, known locally in India, as Tikoor, and a similar kind of starch is yielded by C. zerumbet, C. rubescens, C. leucorrhiza and Alpinia galanga, the Galangal root of commerce. The particles of East India arrowroot are very unequal in size, but on the average are larger than those of West India arrowroot.—*Drs. Roxb. O'Shaughnessy, Voigt, Birdwood, Major Drury.*

CURCUMA AMADA, Roxb. i. 53.

Amada	BENG.	Aru Kaula	
Mango Ginger	ENG.	Kachoram	TEL.
Tommon munga	MALAY.		

A plant of Guzerat, Concan, Bengal, and Java: root used medicinally. The name of mango-ginger is given to this root from its peculiar smell while fresh. It is a gentle stimulant, but now only used as an article for seasoning food. Aru kaula meaning "six eyes," Shadgrandika "six jointed," are also given as syns. of Nalla ativasa or C. caesia, and seem to be merely Sanscrit forms of the same word, both probably referring more correctly to C. Zedoria or "long zedoary."—*Roxb. Voigt. O'Shaughnessy, p.* 649.

CURCUMA ANGUSTIFOLIA. Roxb.

Narrow leaved turmeric	ENG.	Kuay kalung; kua koghai	MALEAL.
Tikhur, Tikor	HIND.	Kua-maoo; Kua-kalang; kua	TAM.
Kughai	MALEAL.		

This plant grows wild in all the hilly parts of the centre of the peninsula, in Central India, in the forests, extending from the banks of the Sone to Nagpore: abundantly on the Malabar coast, is cultivated about the districts of Patna, Sagur, Benares and the south-west frontier of Bengal, also in Mysore, Vizagapatam, Sholapore, Mahabaleshwar, Ganjam, Cochin and Tellicherry, and is used by the natives for food. It has stalked narrow, lanceolate leaves. Its tubers are found at the end of fleshy fibres, which meet together, forming a crown, and they yield an excellent arrowroot called the East Indian arrowroot of commerce. Mr. Rohde has brought arrowroot from the Kond race of Suradah, which was obtained from the Curcuma montana and angustifolia. This starch has been prepared in large quantities on the western coast for many years, in Travancore, Cochin and Canara, where the farina is extracted from the pendulous tubers of these and other species of Curcuma, and this excellent substitute for the West Indian article might be produced in large quantities all over the peninsula. It is sold at 3*s.* 4*d.* the lb. The method of preparing the arrowroot is substantially the same from whichever plant it is extracted. The commercial value of the East Indian farina is very much below that of the Maranta arrowroot. It is less used as an article of diet, but is largely bought by the starch makers of London. *Kutchoora* is a general name given to the genus Curcuma. The tubers should be planted in a good rich soil, about one foot apart, just before the rainy season; and taken up as soon as the leaves are dry. Rats, porcupines, and wild hogs are very destructive to it, both when first planted, and also when ripe. Such tubers as are required for seed should be kept in a dry place in sand.—*Roxb.* i. 31. *O'Shaughnessy, p.* 649. *Simmond's Comml. Products, page* 351. *Eng. Cyc. page* 261. *M. E. J. Reports. Ainslie, p.* 242. *Rohde MSS.*

CURCUMA AROMATICA. Salisb.

Curcuma Zedoaria. *Roxb.*; *W. Ic.*

Bun Haldi	BENG.	Jungli Haldi	HIND
Wild Turmeric	ENG.		

Grows in Malabar and Bengal, and its root is used as a perfume, and also medicinally. It possesses tonic and aromatic properties.—*Roxb.* i. 23, *Voigt.* 563.

CURCUMA LEUCORRHIZA.—Roxb.

Tikur, HIND. BENG.

Grows wild in the forests of Behar, and at Bhagulpore arrowroot is made from its long straight roots, often a foot in length, and of a pale yellow inside, by rubbing them on a stone or beating them in a mortar, after which they are rubbed in water by the hand and strained through a cloth; the fecula having subsided, the water is poured off, and the arrowroot dried for use.—*Roxb.* i. 30. *Voigt.* 564. *O'Shaughnessy*, p. 649. *Eng. Cyc. p.* 261.

CURCUMA LONGA. Roxb.; *Rheede.*

Amomum curcuma. *Gmel.*

Zirsud	AR.
Uruk us saf'r	„
Haldi	BENG. DUK. HIND
Arisina	CAN.
Halad	DUK.
Turmeric	ENG.
Long rooted „	„
Kupeiros Indikos	GR.
Haradul	GUZ.
Koonhet	MALAY.
Manjella cua	MALEAL.
Zard chobeh	PERS.
Karkum	„
Haridra	SANS.
Peeta	„
Haradul	SINGH.
Haran-kaha	„
Munjall	TAM.
Pasupu	TEL.
Pampi	„

Turmeric is grown all over India and the archipelago. It has large whitish flowers, with a faint tinge of yellow, the tuft greenish white. In cultivating it the ground must be rich, friable, and so high as not to be drowned in the rainy season; such as the Bengali ryots about Calcutta call Danga. It is often planted on land where sugar-cane grew the preceding year, and is deemed a meliorating crop. The soil must be well ploughed and cleared of weeds, &c. It is then raised in April and May, according as the rains begin to fall, into ridges nine or ten inches high, and eighteen or twenty broad, with intervening trenches, nine or ten inches broad. The cuttings or sets, consisting of small portions of the fresh root, are planted on the tops of the ridges, at about eighteen inches or two feet asunder. One acre requires about from nine hundred such sets, and yields in December and January about two thousand pounds weight of the fresh root. The tubers are a deep orange inside, bitter and aromatic. The colouring matter of the dried root is bright yellow, soluble in alcohol and water, and changed to a deep red by alkalies. White paper dyed by an alcoholic tincture of turmeric is a very sensitive test for alkalies. The root is used by the dyers in dyeing yellow and green, and it enters into many of the religious ceremonies of the hindus. The entire, or the corners of every new article of dress whether of man or woman, are stained before wearing it with a paste made of the root and water. Mixed with lime it forms the liquid used in the Arati ceremony, for warding off the evil-eye. Women use it largely as a cosmetic, and some smear all the body with it as a detergent. It is a mild aromatic and carminative and is used as a condiment in curries, the paste is applied to foul ulcers, and clothes dyed with it are deemed a protection against fever, and the Javanese make an ointment of the pounded roots and rub it all over their bodies as a preservative against fever. With it, in conjunction with lime juice, the hindoos of the sect of Vishnoo prepare their yellow Tiroochoornum, with which they make the perpendicular mark on their foreheads.—*Ain's. Mat. Med. p.* 203. *Roxb.* i. 32. *O'Shaughnessy p.* 649. *Royle*, 616. *Dr. Shortt.*

CURCUMA RUBESCENS. Roxb. i. p. 28.

Tikor, BENG.

A native of Bengal, Chittagong, Burmah and Pegu; the root is highly aromatic, but its chief use is for the preparation of *Tikor*—a very fine fecula, like arrowroot, which, in Travancore, constitutes an important article of food.—*O'Shaughnessy*, *p.* 649.

CURCUMA ZEDOARIA. ROXB.

C. zerumbet *Roxb.* | Amomum zerumbet *Kon.*

Zerambad; Jadwar	AR.
Zadwar	„
Mahfirfeen	„
Shuthif; Ban haldi Kakhuri; Karchuramu; Kakhura	BENG.
Tha nu wen	BURM.
Nirbisi	CAN. DUK.
Kuchur: Karchura	DUK. GUZ. HIND. SANSC. TEL.
Zedoary; Long leaved turmeric; Round Zedoary; Long Zedoary	ENG.
Kakhura, Kachura	HIND.
Tomon	MALAY.
Katon inshi kua	MALEAL.
Zerumbad	PERS.
Nirbisha; Apavisha; Vishaha; Vunahuridra	SANS.
Shoolika	„
Sholi	„
Carchuraka	„
Carchura	„
Sathi	„
Wal kaha	SINGH.
Henhorupe calli kulla	„
Kasturi manjal	TAM.
Kapurkichili	„
Palangkelangu	„
Kichli gadda; kuchura	TEL.
Kusthuri pasupu	„
Tela kasturi pasupu	„

A native of Bengal, Chittagong and China. This is the *round zedoary*, all kinds of which resemble ginger in their medicinal qualities, but are inferior to it in strength and agreeableness of flavour. Its flowers are largish, of a deep yellow, and at the top a bright crimson tuft. This plant is supposed to yield the long zedoary of the shops; the powdered root is mixed with the powder of Cæsalpinia sapan to make the "abir" or "shagoo," the red powder thrown about by hindoos in the holi festival; the root is also used medicinally. *Roxb.* i. 20. *Voigt* 564. *O'Shaughnessy p.* 640.

CURCUMBARRY, a valley once filled with forest trees, 90 miles west of Madras, near Nagery in the N. Arcot collectorate. But the valley is deforested, though the conservator reported that if strict vigilance were not exercised, the forest would disappear and the ryots will not only suffer from want of fuel, but the climatic effect may be disastrous.

CURDAPU. TAM. an article of jewellery.

CURDEE HIND? Safflower Seed. Safflower-oil is a light yellow, clear oil, when properly refined or prepared it is used in India for culinary and other purposes, and deserves attention as no doubt it could become a staple import. It is used as a 'drying oil,' and it is believed to constitute the bulk of the celebrated 'Macassar oil.' The safflower seed is exported under the name of "curdee." Safflower is sown in October, either alone, or along the edge of wheat crops, both light and heavy soils are adapted to it. It is cultivated in every village but not extensively. The oil is extracted by pressing. In Lucknow the cost of the seed, which is there called 'Barre,' is 18¾ seers per rupee, and the cost of the oil is from 3 to 4 seers per rupee.— *Ex.* 1862.

CURDUCHIA. Kurdistan, the ancient Carduchia of Xenophon, a country more fruitful in soldiers than in grain, but which from its strength and position commanded all the western part of Persia. It is inhabited by tribes who though tributary to Turkey and professing mahomedanism, are virtually independent. Many are nomades. Sir John Malcolm travelled through their country in 1810 ; and from what he had read and seen of its inhabitants, he formed the opinion that they had remained unchanged in their appearance and character for more than twenty centuries.—*Malcolm's History of Persia, Vol. I. p.* 105. *Chatfield's Hindustan, p.* 119.

CUREA, ALSO KARIA. HIND. A village, from the Arabic, assembling together, a concourse. The word is preserved in Cureat Mittoo, Cureat Seek'hur, Cureat Dost, and Cureat Mendhoo, the names of purgunahs in the province of Benares.

CURIA MURIA ISLANDS, on the Mahra coast of Arabia, were ceded to the British in 1854 by the Imam of Muscat. They are only valuable for deposits of guano.

CURIEUSE, one of the Seychelles, lies north of Praslin in L. 4° 16′ S.

CURIOSITIES, Under this general term are included a great variety of articles purchased by those who visit China as articles peculiar to the country. They consist chiefly of such things as please the fancy, and are for the most part procured for ornamental purposes. Vases, pots, jars, cups, images, statuettes, ornamental screens, plates, boxes, &c. made of copper, iron, bronze, clay, silver, porcelain, stone, lackeredware, or wood, of every shape, size, and variety of workmanship, rings, stands and pedestals, lanterns, scrolls, &c. &c. constitute most of the articles exported as curiosities. The amount is probably over $20,000 annually.—*Hon'ble Mr. Morrison's Compendious Description. Williams' Middle Kingdom. II. p.* 400.

CURIVADU. See Curruadu.

CURKAPULI MARAM. TAM. Inga dulcis. Curkapuli Oil. Oil of Inga dulcis. See Oil.

CURLEW ISLAND, a name of Kalagouk, a quarry for the Alguada reef lighthouse establishment ; it is situated in the Gulf of Martaban, 30 miles south of Amherst. It is eight miles long, exclusive of Cavendish Island, which lies at its extreme south end, and which is half a mile in length. The greatest breadth is one and a quarter mile ; and on its highest point, which is about 500 feet above the sea, are "remarkable trees"—a point for navigators making the coast. The base of the island is granitic rock, the substratum being a rich mixture of open porous soil, composed of sand and vegetable mould. The northern half, on the western side, is composed of a long granite ridge, with a perpendicular drop to the sea, varying from 200 to 300 feet. On the opposite side are three bays, the finest of which is Quarry bay, where the stones were prepared for the Alguada lighthouse. All the bays on the eastern side are perfectly protected from the south-west monsoon, and the one on the western affords a free, open and safe place for boating during the north-east monsoon. Dr. Macpherson strongly urged government to take an interest in the development of the island, but when the Editor visited it in 1863, he reported it as wholly unsuitable for a sanitarium.

CURMA, in hindu mythology, the second incarnation of Vishnu in the shape of a tortoise. See Avatara. Vishnu.

CURMBOLE, MALAYALA, a tree of the Canara forests, which grows to about twelve or eighteen inches in diameter, and from fifteen to thirty feet high ; it is used by the natives for house-work, and is considered a useful and durable wood.—*Edye, M. and C.*

CURNUM, TAM. TEL. A village accountant.—*Wilson.*

CUSTARD APPLE SEED, called Sherifah, disperses vermin. Flies are reported never to settle on the tree or its fruit, though ants will attack both. Bugs have a great antipathy to the leaves of the custard apple, and are said to quit a bed in which they are placed. The bruised seeds of the custard apple are said to dispel bugs.—*Tennant's Ceylon. O'Shaughnessy. Hooker Him.*

CURRANTS.

Raisins de Corinthe	FR.
Korinthen	GERM.
Uve-passe de Corinto	IT.
Passulæ Corinthiacæ	LAT.
Korinka	RUS.
Opoek	
Pasas de Corinto	SP.

The currants of commerce consist of the small dried grape, or berry, of species of vine, cultivated in the Morea, Ionian islands, and some parts of Persia, &c. A currant, like the European red currant, called "rasta", is largely eaten by the people of the upper Punjab. Currants (zirishk), both acid and sweet, the former being the fruit of the berberry dried, and which resembles European currants, are brought from Kabul and other hill places. The zirishk currants are of two kinds, somewhat alike in appearance ; one is sweet, and grows in Kabul, &c., being a species of small fruited vine (Vitis) ; the other is acid, being the dried berberry. Sweet currants "basho" (Thibetan), from species of vitis, are imported from Balti.—*Faulkner. McCulloch's Commercial Dictionary, p.* 456.

Powell Hand Book. Economic Prod. Punjab, p. 266,8,9.

CURRANTS, BENGAL. ENG. Fruit of Carrissa carandas.

CURRASSAVIAN MALLOW WORT. Asclepias currasavica, *Linn.*

CURRENCY. The currency of British India is in the form of rupees, annas, and pice. The rupee is a silver coin, weighing three drams or a tola of 180 grains, and its rate of exchange varies a little under 2 shillings. It is current all over British India, on the coast line of the southern shores of Persia, Turkish Arabia, Arabia and Egypt, Arracan, Pegu, and Tenasserim, and southwards towards the Mauritius. The dollar is current from Singapore, through the Archipelago of Asia, in Borneo, Celebes, China, Cochin China, Java, Malay Peninsula, Manilla, Siam, Sumatra, &c.

The silver currency of the rupee was established by Act xvii. of 17th August 1835, and the standard was fixed at eleven-twelfths or 165 grains of pure silver and one-twelfth or 15 grains of alloy. On the obverse the head of the reigning sovereign of Great Britain and Ireland, on the reverse the words East India Company in English and Persian, and it is a legal tender. It was declared equal to the Furruckhabad, Bombay, Madras, and Surat rupee, and 15-16th of the Calcutta sicca rupee. The same act of the legislative council declared that the only gold coins that should be coined in British India should be the gold mohur of 180 grains, 165 pure gold and 15 of alloy; a five rupee piece, equal to a third of a gold mohur; a fifteen rupee piece, or gold mohur, and a thirty rupee piece, or double gold mohur.

The Imports of Gold and Silver into all British India have been as under, ranging in value from two millions to twenty-six millions a year.

Year.	Gold in all forms.	Silver in all forms.	Total imports Gold & Silver in all forms.
£	£	£	£
1854-55	882,721	1,145,137	2,027,858
1855-56	2,508,353	8,792,793	11,301,146
1856-57	2,176,002	12,237,695	14,413,697
1857-58	2,830,084	12,985,332	15,815,416
1858-59	4,437,339	8,379,692	12,817,031
1859-60	4,288.037	12,068,926	16,356,963
1860-61	4,242,441	6,434,636	10,677,077
1861-62	5,190,432	9,761,545	14,951,977
1862 63	6,881,566	13,627,401	20,508,967
1863 64	8,925,412	14,037,169	22,962,581
1864-65	9,875,032	11,488,320	21,363,352
1865-66	*6,372,894*	*20,184,407*	*26,557,301*
1866-67	*4,581,472*	*8,655,432*	*13,136,904*
1867-68	*4,775,924*	*6,999,450*	*11,775,374*

The great range in the quantities imported of gold and silver, from two millions in 1854-5 to 26½ millions in 1865-6, indicates that the import is chiefly regulated by the requirements of commerce; but it is generally believed that a considerable amount is being absorbed in India by the manufacture of silver and gold ornaments. From the earliest historic times gold coins have been in use in India. Coins found in Afghanistan contain Greek legends from Seleucus Nicator 280 B. C. to the middle of the 2nd century of our era, Greeks were largely mixed as colonists with the nations over whom they reigned. We have first pure Greek coins, next Arsacian, and then Sassanian, when the Greco-Parthian dominion in central Asia closed. There was during great part of this period an Ario-Parthian dynasty, reigning over Kabul and the Panjab, but after A. D. 80, a new order of coins is found bearing the name of Kanerkes, with legends in corrupt Greek. These are ascribed to a new race of Scythian kings, who immediately succeeded those named Kadphises, of which name three kings are recognised by these coins.

A legend on the obverse of a coin of Oomen Kadphises, Arian character, which reads from right to left, translated, gives words in modern Hebrew.

By Act xxi. of 20th December 1835, the copper coins established were a double pice of 200 grains troy, a pice of 100 grains, and a pie or 1-12th of an anna, of 33-⅓ grains, and the Tristcolee pice of Benares was abolished. Two subsequent acts ordered the heads of king William and then of queen Victoria to be stamped on the obverse.

In the Hyderabad state there are several silver and many copper coins current, and in the town of Oomraoti, the merchants pass from each other sealed bags of money as a currency. The Chinese currency is a copper coin; silver is sold by weight. Pegolotti speaks of the celebrated paper money of China, once deemed a fable of Marco Polo, though before his time even it had been distinctly mentioned by the intelligent friar Rubruquis. Its use was of great antiquity, for traces at least of leather representatives of money are found as far back as B. C. 119. Though the government of China has not issued paper money since then, there has been considerable local use of such currency among the people, even in our own time. In Fucheu, some years ago, it had almost displaced bullion, and in that city the banking houses were counted by hundreds. Though the system was under no efficient control, few notes were below par, and failures of any magnitude were rare. The notes were chiefly from copper plates (and such notes were engraved in China as early as 868) and ranged in value from 110 cash to 1000 dollars. Kai-khatu Khan of Persia was persuaded to attempt the introduction of a paper currency under the Chinese name (chao) in 1294.

In China, the legal standard, silver, uncoined, has a fixed standard fineness, and gold is but merchandise. England has its standard of gold. France has a double standard of gold and silver, but from Constantinople to Japan, both inclusive, silver and not gold has been and is now the sole standard. Under the Romans the relative value of gold to silver was ten of silver to one of gold. At present about fifteen pounds of silver is equivalent to one pound of gold. In India and China, sovereigns are quoted in the price currents as merchandise, but only in Ceylon and the Mauritius are they a legal tender. It is supposed that the annual production of new gold is about £20,000,000, and that of new silver about £19,600,000. The supply of new silver has not quite equalled that of new gold, being short by about two per cent. per annum. From the middle of the 19th century it has several times been suggested to make gold a legal tender in British India, by reckoning the gold sovereign as the equivalent of ten rupees. But in India generally, the bulk of the community virtually make the copper coins the standard, and the values of the silver coins vary daily and hourly in the bazars, while, except as merchandize, gold coins are never seen, and for a long further period, whatever the governments of India may decree, copper coinage will regulate the values of the silver, gold and paper in use. Mr. Wilson, when finance minister of India, estimated the whole coin current in India at one hundred crores of rupees, £100,000,000 sterling, and he believed that a great part of that amount might be transferred from uproductive to productive uses by the gradual substitution of Government promissory notes payable on demand. There was even then a note circulation current in India, but only of a limited and local character, and on the private responsibility of the three Presidency banks, and this Mr. Wilson proposed to withdraw previous to the issue of his paper currency. But Sir Charles Wood, then Secretary of State, suggested changes to be made in it which Mr. Laing gave effect to, and it was issued with a ten rupee note as the lowest. The Government scheme took effect in March 1862, in which month notes to the value of Rupees 3,69,00,000 were issued, and in September 1863, notes to the value of Rupees 5,26,00,000 were in circulation.—(*Yule Cathay*, ii., *p.* 290.)

CURRIE, Sir Frederick, Bart. Twice Governor of Bombay, Chairman of the Board of East India Directors, Vice-President of the India Council. He was born the 3rd of February 1799, received his education at the Charterhouse, where he was the schoolfellow of Havelock, Thirlwall, and Grote. He entered the civil service on the Bengal establishment in 1817, in 1839 he became Secretary to the Governor-General of the N. W. Provinces ; Secretary to the Government of India in 1842, and accompanied Lord Hardinge in his campaign across the Sutlej in 1845, and the following spring. In his despatch to the Secret Committee, dated from the Camp at Ferozepore, December 31, 1845, the Governor General thus expressed himself :—I owe great obligations to the Chief Secretary to the Government, Frederick Currie, Esq., who during all the various, and sometimes conflicting, duties in which I have been engaged, has given me his sound advice, and active aid ; sometimes accompanying me in the field, and at all times evincing the coolest judgment and exhibiting the resources of his experience to the great advantage of the Company's service." Sir Frederick's services were again acknowledged in the general orders in the February following ; and he was afterwards deputed to conduct the maharajah Dhuleep Singh in state from the palace to the citadel of Lahore, and to arrange the treaty at Umritsur. He was appointed a member of the Supreme Council at Calcutta in November 1846, and held that post until 1848. He sat as an ordinary member of council from March 1849, down to the year 1853. He was created a baronet December 17, 1846, immediately after the battles of the Sutlej. He returned to England towards the close of the year 1853, and in the following month of April, was nominated by Her Majesty's Government one of the Court of East India Directors. He was chosen Chairman of the Company in 1858, and held that appointment until the cessation of the functions of that body, on the 1st of September 1858.

CURRUADU, properly CURIVADU. Tam. Salted Fish.

CURRUCA ORPHEA. Tem. A specimen of this from Algiers is distinct from C. Jerdoni, *Blyth* v. C. orphea, apud Jerdon, Catal.—*Mr. Blyth's Report,*

CURROPALLE MARAM. Tam. Putranjiva.

CURRU-VENGHE. Tam. Acacia odo[illegible]tissima.

CURRYING OF LEATHER. Thi[illegible] an art but little practised among the natives of India. The chuckler by whom every operation is conducted, from the skinning of the beast to the binding of a pair of shoes, shaves the hide or skin down with his knife; beats and rubs it with his maul, and blackens it with iron liquor, to which plantain root and conjee water are sometimes added: sometimes a little lamp oil is used.—*Rohde MSS.*

CURRY LEAF TREE. Bergera Konigii.

CURRY MARDAH WOOD. ANGLO-TEL. Terminalia glabra.

CURRY. Ibn Batuta describes the natives of Ceylon as eating curry, which he calls in Arabic Conchan, but in modern Arabic Idaan is the name. This was 200 years before the Portuguese had appeared in the Indian seas. In the Rajavali, also, this article of diet is mentioned as in use in Ceylon in the second century of this era. Nevertheless, several writers have suggested that the word has been introduced from the Portuguese. Professor Wilson supposes it derived from Kadi or Kari, *Karn*, boiled sour milk used with rice. The word however is, seemingly, from some Tamulian tongue, probably from the Tamil word "kadai or karai" a bazaar, and Tamil children in the peninsula sing a nursery song

> Ky viss ammah ky viss,
> Kadi ki polam ky viss.
> Swing your hand, mother, swing your hand,
> Let us go to the market, swing your hand.

Curry in Urdu or Hindustani is called Salin, in Tamul Karri, in Telugu Koora, in Persian Nan-Khoorish. Curry is daily used in every family on the coast, wherever the Bengali, the Tamul, Telugu, and Mahratta people have spread, in greater or less quantity according to the means of the family, always with vegetables and with mutton or fowl as they can afford. With the people the ingredients are usually brought fresh from the market daily, but Europeans in India often grind the dry materials and keep them in powder. There are very numerous prescriptions, and almost every household has one of its own. Up to the middle of this century many houses prided themselves on their curries. The curry powders of India are articles of considerable commercial traffic; 32,550 cwt. of curry stuff was imported into Ceylon, chiefly from India, in 1851. The usual ingredients for curry stuff are

Native Name	*English.*	*Botanical.*
Sonf.	Anise seed.	Pimpinella Anisum.
[illegible]tul cheenee gach.	Allspice.	Myrtus Pimenta.
[illegible]chie.	Cardamom.	Elettaria cardamomum.
[illegible].	Cloves	Eugenia Caryophyllata.
[illegible]rie.	Mace.	Myristica Moschata.
[illegible]ull.	Nutmeg.	Do. Do.
[illegible] darchini.	Cinnamon.	Laurus Cinnamomum.
[illegible]nia or Kotimar.	Coriander.	Coriandrum Sativum.
Zoera.	Cummin seed.	Cuminum Cyminum.
Kali mirchie.	Black pepper.	Piper Nigrum.
Rai.	Mustard seed.	Sinapis Chinensis.
Lal mirchie.	Chillies	Capsicum frutescens.
Huldi.	Turmeric.	Curcuma longa.
Maytie.	Fenugreek.	Trigonella Fœnum.—Græcum.
Lassun.	Garlic.	Allium Sativum.
Sont.	Ginger, dry,	Amomum Zingiber.
Udruck.	Ginger, green.	
Khush khush.	Poppy seed.	Papaver Somniferum.
Pipel.	Long pepper.	Piper longum.
Hing.	Assafœtida	Ferula Assafœtida.
Chironjii.	Chironjie nut.	Buchanania Latifolia.
Badam.	Almond.	Amygdalis Communis.
Narel.	Cocoanut.	Cocos Nucifera.
Nemuck.	Salt.	....

Good ingredients for making a curry with meat, fowl, or fish are

Mirchie.	Chillies, dry or green, from 6 to 12 or more.	
Huldie.	Turmeric,	one Tolah.
Dhunnia.	Coriander seed,	one ,,
Zeera.	Cummin seed,	three Masha.
Elachie.	Cardamom seed,	two ,,
Maytie.	Fenugreek,	three ,,
Sont.	Dry ginger,	three ,,
Kali Mirchie.	Black pepper,	one Tolah.
Nemuck.	Salt,	two ,,
Loong.	Cloves,	twelve ,,
Jawatrie,	Mace,	one Masha.
Kulmie Darchinie.	Cinnamon,	one Tolah.
Narel.	Cocoanut,	eight ,,
Chironjie.	Chironjie nuts,	six ,,
Badam.	Almonds,	five ,,
Khush-khush.	Poppy seed,	five ,,
Peaz.	Onions, a table-spoonful, sliced.	
Lussun.	Garlic, from one to three cloves.	
Am.	Mango, dried or green, a few slices.	
Imlee.	Tamarinds, fresh or salted, a small quantity.	
Leemboo.	Lime juice, one dessert-spoonful.	
Tyre	Curds, three table-spoonsful	
Ghee or Butter, three table spoonsful.		

These are the quantities of the various articles to be used in the preparation of a curry, bearing in mind that it is unnecessary to use the whole of the spices together; or the mangoes, tamarinds, or lime juice: neither the cocoanut with the almonds: and the ginger may be omitted when dry ripe chillies are used, as likewise the cummin seeds with the coriander, both of which are better for being roasted. Cocoanut milk is much used on the coast in forming the gravy to many curries, especially fish and prawns, as well as the oil fresh expressed from the nut when grated. If the curry is to be dry, the onions must be fried brown in ghee or butter, and the ingredients ground to a paste with water mixed in the same,the meat, and fowl added, stirring the whole until the gravy and butter are absorbed. For a gravy curry, cut the meat or fowl into slices, put the ghee into a stewpan over the fire with the sliced onions, and dress them, then add the meat with the ground ingredients, and some water or broth; mix well together, and let the whole simmer gently until the meat is properly done. Chundoo is made with meat or fowl that has been previously dressed. It is to be minced up and added to chopped onions fried in ghee, with whole red chillies, and the other curry ingredients well mixed together; the frying is continued until the meat is perfectly brown and the gravy quite absorbed. Dr. Riddell gives the following ingredients for four curry powder receipts.

	No. 1.	No. 2.	No. 3.	No. 4.	
Coriander seeds.	lbs. 20	lbs. 12	lb, 3.	lbs. 1	To be well roasted.
Turmeric,......	„ 4	„ 2	„ 1	„ 1 2oz.	Pounded.
Cummin seeds..	„ 1	„ „	„ ½	„ „	Dried and ground.
Fenugreek......	„ 1	„ 1	„ „	„ 0 4oz.	
Mustard seed....	„ 1	„ „	„ ½	„ „	Dried and cleaned of husks.
Ginger, dried...	„ 2	„ 2	„ „	„ 1 „	
Black pepper...	„ 2	„ 1	„ 1	„ 1 „	
Dried Chillies..	„ 1	„ 2	„ 1	„ 0 12oz.	
Poppy seed.....	„ 2	„ 2	„ „	„ „ „	
Garlic..........	„ 2	„ 1	„ „	„ „ „	
Cardamoms....	„ „	„ „	„ „	„ 0 8oz.	
Cinnamon......	„ „	„ „	„ „	„ 0··8oz.	

Salt in proportion to be added when using the curry stuff. The whole to be cleaned, dried, pounded, and sifted; then properly mixed together and put into bottles, well corked. A tablespoonful is sufficient for chicken or fowl curry. Another very simple receipt is powdered turmeric 22 tea spoonfuls; red dried chillies or Cayenne pepper, 8 Ditto, Coriander seed, Cummin seed, dried cassia leaves (tejpat), each twleve tea-spoonfuls and mix together.—*Riddell's Domestic Economy, p.* 404. *Simmond's Com. Prod.*

CURRY VEMBOO. TAM. Garuga pinnata.

CURRY LEAF-TREE. Bergera Konigii.

CURSORES, OR RUNNERS. An order of birds which may be thus shown:—

ORDER VI.—Cursores or Runners.

Fam. Casuaridæ, 2 gen. 2 sp. viz. 1 Casuarius galeatus; 1 Dromaius novæ Hollandiæ.

Fam. Struthionidæ, 1 gen. 1 sp. 1 Struthio camelus.

CURSORIINÆ, the Waders, a sub-family of birds which may be thus shown:—

ORDER VII.—Grallatores, or Waders.

a. Tribe Pressirostres.

Fam. Otidæ, Otis and 3 sub-gen. 4 sp. viz. 1 Houbara; 1 Eupodotis; 2 Sypheotides.

b. Incertæ Sedes.

Fam. Glareolidæ, 1 gen. 2 sp. viz. 2 Glareola orientalis, lactea.

Fam. Charadriadæ.

Sub-fam. Cursoriinæ, 2 gen. 2 sp. viz. 1 Cursorius Coromandelicus. 1 Macrotarsius bitorquatus

Sub-fam. Esacinæ, 2 gen. 2 sp. viz. 1 Esacus; 1 Œdicnemus.

Sub-fam. Vanellinæ, 4 gen. 6 sp. viz. 1 Hoplopterus: 1 Sarciophorus; 3 Lobivanellus.

Sub-fam. Charadrinæ, 2 gen. 2 sub-gen. 10 sp. 1 Squatarola; 2 Charadrius; 1 Eudromias, 6 Hiaticula.

Fam. Chionidæ, 1 gen. 1 sp. 1 Hæmatopus ostralegus.

Fam. Recurvirostridæ, 2 gen. 3 sp. Himantopus; 1 Recurvirostra avocetta.

Fam. Scolopacidæ, 16 gen. 32. sp. viz. 1 Ibidorhynchus; 4 Totanus; 3 Actitis; 6 Tringa; 1 Terekia; 2 Limosa, 2 Numenius; 1 Eurinorphynchus; 1 Calidris; 1 Philomachus: 1 Strepsilus; 1 Phalaropus; 1 Scolvpax; 1 Macrorhamphus; 6 Gallingo; 1 Rhynchæa. See Birds.

CURU, OR VRIHASPATI. A name of Jupiter. See Graha.

CURU, the founder of the race who contended with the Yadu for dominion in Hindustan, at the battle famed as Kuru-khet, which is described in the Sanscrit poem the Mahabharata. Curu had two sons, Sudina and Parikhita. The descendants of Sudina terminated with Jarasandha, whose capital was Rajgraha, the modern Rajmahl, on the Ganges, in the province of Bahar. From Parikhita descended the monarchs Santana and Balica: the first producing the rivals in the great war, Yoodishtra and Duryodhana, the other the Balicaputra. Duryodhana, the successor to the throne of Curu, resided at the ancient capital Hasthapoora; while the junior branch, Yoodishtra, founded Indrapretha, on the Yumuna or Jumna, which name in the eighth century was changed to Delhi. The sons of Balica founded two kingdoms; Palibot'hra on the lower Ganges, and Arore founded by Sehl on the eastern bank of the Indus.—*Tod's Rajasthan. Vol. I., p.* 42.

CURUMBAR. In the southern districts of the peninsula of India, an ancient aboriginal people of this name are the earliest known occupants of Dravida desam, the modern Carnatic and Coromandel. They seem to have established numerous petty principalities over the whole peninsula, which were ultimately absorbed in the Chola empire. Numerous sites attributed to this race and still called Curumber Cot are to be met with. Small communities of the same tribe are found to this day in the less accessible hills and forests of many parts of the peninsula. See India. Kurumbar.

CURU VAYRU or Kussavu. Andropogon or Anatherum muricatum. Cuscus root.

CUSA GRASS. Poa Cynosuroides.

CUSBHURA, also written Casbhara, the designation of the artizans who work in bell metal; from Kanso, bell-metal, and Bhurna, to fill. They are also employed in fusing precious metals and making ornaments which require to be formed in moulds. They comprise one of the sub-divisions of sonar or goldsmiths, of which, in Hindustan, the others are

Muthoorea Myr
Khuttrea,
Kumethika Lahourea,
Poorbea,
Canoujea,
Mahour,
Muhamunea,
Agurea,
Birpoorea,
Chhyneewan.
Mungorea.

Of these Muthoorea ranks the highest. The Cusbhara is below them all. Amongst these tribes there is a secret language which is adopted for the purpose of concealing their fraudulent acquisition of property.—*Elliot. Supp. Gloss.* See Hindoo; Kansala:

CUSCO. See Cinchona.

CUSCUS. Guz. and Hind. Poppy Seed, properly Khash Khash.

CUSCUS-GRASS. Anglo-Hind. Andropogon or Anatherum muricatum.

CUSCUS ORIENTALIS occurs in Timur. See Mammalia.

CUSCUS ROOT. Anglo-Hind.

Bala,	Duk.	Viratara,	Sans.
Usir,	Guz.	Vetti vayru,	Tam.
Cuscus,	Hind.	Curu varu,	Tel.
Khas,	Pers.		

The roots of the Andropogon muricatus, *Retz*, which grows all over India, and its roots are used for making screens, tatties, punkahs, large fans, or covers for palanquins, and when wetted, a very fragrant smell issues.

CUSCUTACEA, an order of twining, parasitical, leafless herbs, of which twelve species occur in the south and east of Asia,

arabica
australis
carinata
chinensis
corymbosa
grandiflora
hyalena
longiflora
macrantha
pedicellata
planiflora
reflexa

They twine on various trees, and are found up to nine thousand feet in the Himalaya and Afghanistan. C. longiflora is the nilatari of Kaghan, C. macrantha, *Don*, also "called nilatari and amil," grows up to 9000 feet, up to the Indus. Dr. J. L. Stewart tells us that it is found on Populus, Salix, Spirea, Lonicera, Desmodium, Urtica, and Polygonum, and like some of the other species, it exhales at times a very strong scent. It is eaten by cattle and goats. Edgeworth mentions that the mountaineers believe that crows pluck sprigs of this and of C. anguina, *Edge.* to drop into water, when they become snakes and so furnish food for themselves. Madden states that the natives promise boundless wealth to him who finds the root of it, while others again believe that the possession of its root will confer the gift of invisibility. —*Drs. Roxb. p.* 346, 347. *J. L. Stewart. Voigt. p.* 349.

CUSH and Lava, were the two elder sons of Rama, and from Cush descended the Cushwaha princes of Nirwar and Amber. The race of Cush has no connection with the Causika of Kanouj and the Causambi.—*Tod.*

CUSH, a descendant of Hasti of the Lunar race, had four sons, two of whom, Cushnabha, whose descendants are styled the Kausika or Kusika, founded Muhadya on the Ganges, afterwards changed to Canyacubja, or Canouj, which maintained its celebrity until the mahomedan invasion of Shahab-uddin (A.D. 1193), when this overgrown city was laid prostrate for ever. It was not unfrequently called Gadhipoora, or the 'city of Gadhi.' This practice of multiplying names of cities in the East is very destructive to history. Abul Fazil has taken from hindu authorities an account of Canouj; and could we admit the authority of a poet on such subjects, Chund, the bard of Pirthwiraja, would afford materials. Ferishta states it in the early ages to have been twenty-five coss (thirty-five miles) in circumference, and that there were thirty thousand shops for the sale of the areca or betel-nut only, and this in the sixth century, at which period the Rahtore dynasty, which terminated with Jyechund, in the twelfth, had been in possession from the end of the fifth century. Cushamba founded a city which he called after his own name *Causambi.* The name was in existence in the eleventh century, and ruins might yet exist, if search were made on the shores of the Ganges, from Canouj southward. The other sons of Cush built two capitals, Dharmarunya and Vasumuttee; but of neither have we any correct knowledge. *Tod Rajasthan.*

CUSHARATHA MARA. Can. Embryopteris glutinifera. *Roxb.*

CUSHITE, a race of Arabs who first gave their name to a part of Arabia, they afterwards crossed the Red Sea, and settled in Ethiopia. In ancient times, the Cushite and Joktanite occupied Arabia felix, when the Ammonite and Ishmaelite dwelt in A. deserta, and the Moabite, Edomite, Nabathœan, Midianite, and Amalekite in A. petrea. See Chaldea, Hindu, Kash, Viswamitra.

CUSSAMBIUM PUBESCENS. Ham. syn. of Schleichera trijuga, *Willd.*

CUSTARD APPLE. Eng. Fruit of Anona squamosa. The sherifah or custard apple seed, disperses vermin. Flies are reported never to settle on the tree or its fruit, though ants will attack both. Bugs have a great antipathy to the leaves of the custard apple, and instantly quit a bed in which they are placed.

CUSTOM HOUSE.

Thannah	Duk.	Gumruck	Guz Hind Pers
Choki	"	Pabeyan	Malay.

CUSTOMS.

Zakat	Guz.	Mahsul	Hind.
Chuke; Chabai; Beya; Sambutan	Malay.		

CUSTURI. Sans. Tam. Tel. Musk.

CUTAKA—? Strychnos *Sp.*

CUTCH, a portion of British India in the N. W. of the peninsula of India. All between the Aravalli mountains and the Indus, from the Sutlej or Hysudrus on the north to near the sea on the south, is a waste of sand, in which are oases of different size and fertility, the greatest of which is around Jessalmir. Cutch intervenes as a narrow strip of land between the desert and the sea, and makes a sort of bridge from Guzerat to Sind. The northern division of the Bombay army, with its head quarters at Ahmedabad, holds Guzerat and Cutch, and stretches its posts around the Runn or salt marsh, and over the Thur desert, north of the Runn, as far as latitude 24° north. The low land of Guzerat resembles that of the Concan, Canara, the Carnatic, and Orissa, but the interior of that province is mountainous. The Runn of Cutch during the monsoon is a shallow brackish lake from forty to sixty miles broad, but it dries up during the hot season, and is then covered with grass. The climate of the outposts is dry, and in the hot season stimulates to irritability. The thermometer rises to 100° in the shade. The other part of Cutch is an irregularly hilly tract completely isolated by the Runn and the sea. On the southern coast the country is a dead flat covered with rich soil, but the northern part has three distinct ranges of hills running from east to west. The central of these ranges consists of sandstone, beds of coal, limestone, and slate clay; the hills north of it consist of marine remains, and those on the south and all the face of the country near them, are covered with volcanic matter. Cutch is 165 miles long, and from [illegible] to 52 miles broad, and not including the Runn, has an area of 6,100 square miles. A remarkable feature of this region is the Runn of Cutch. South of the Indus, the land becomes sandy gradually sloping to the sea, first as a plain covered with a series of billows of sand, then as the level Runn of Cutch up to the mountains of Cutch, the extent being from 500 to 600 miles in length, and varying from 70 to 150 miles in breadth, on which a considerable population dwells. The Runn itself is 150 miles from east to west, and about 40 miles broad. but there is a prolongation of the Runn towards Ahmedabad, and a very narrow line to the Gulf of Cambay. It is almost level, and a little water from the banking up of the sea by the Sirmuuur, converts it into a very shallow lake of a foot or two deep, but in the dry season its saline sand and clay soil are hard like a slate billiard table, and the mirages are so incessant as to deceive ordinary travellers. None but experienced guides can travel there.

The Put district is immediately north of the Runn, is less saline, and is cultivated. The district north of the Runn, extending from 500 miles up to the rivers Indus and Sutlej, is called the Tur, on which are billows or hills of sand 400 to 500 feet high above the sea level, and 200 to 300 feet above the plain. Sir B. Frere alludes to these as of volcanic origin. The inhabitants consist of brahmin tribes, Bhil, Kol, Bhat, Marahta and Sodah rajputs, who do not practise infanticide. The anguage of Cutch has in it elements of the Guzerati. That of the hunters and tanners, Dedh, is another dialect, but the language f Lar is purest.—*Sir B. Frere.* See Abra; ndia; Jharejah; Kashbin; Kattywar; Khosa; Kahjah; Volcano.

CUTCH.

Kat'h	BENG.	Kat'ha	HIND.
Shah	BURM.	Kachu	MALAY

Cutch, Catechu gambier, and terra japonica, are commercial terms for the inspissated aqueous extracts from the bark, wood, and probably the leaves of the Acacia catechu and from the leaves of the Uncaria gambir. A few years ago the terms catechu, terra japonica, and cutch were mployed synonymously; but they are now, for the most part, used in trade somewhat distinctively, though not uniformly in the same sense. Catechu is largely imported into Bombay from Singapore and China; two varieties, viz. black and white cutch, are distinguished from the latter place. In commerce the two sorts are known as catechu, or gambier and cutch. Most of the catechu from Bombay is said to be from the Acacia catechu, and that from Bengal from the Uncaria gambir. Bombay catechu or cutch is the richer in tannin; it is of a dark brownish red colour, internally as well as externally, and of specific gravity 1·38. Bengal catechu or terra is of a light brown colour internally: its specific gravity is 1·28. Both are astringent and bitter, leaving a sweetish taste on the palate. Catechu of the Acacia is prepared by felling the tree, cutting it up into small pieces, and boiling with water in a narrow mouthed vessel, until only one-half of the original bulk of liquid remains. The solution is then transferred to a wide earthen vessel, in which the evaporation is continued, the inspissation is completed by exposure to the sun with occasional stirring. Before the extract is quite dry, it is placed in cloths, strewed over with the ashes of cow-dung, is then cut into small lumps, and again exposed to the sun. Mr. Parnell remarks that the appearance of the dark-coloured variety or cutch, answers better to the description of this mode of preparation than that of the light-coloured variety. This, which is more pulverulent than the former, is said to be prepared by mixing the concentrated decoction of the tree with a pulverulent substance resembling starch. The powder is disposed in a thin layer on a floor or shelf, and the concentrated infusion or decoction allowed to run over the floor, and be imbibed by the powder. When the mass is become stiff by drying, it is cut up into small lumps and dried in the sun. Both kinds of catechu contain about half their weight of tannin, which differs from that of galls in affording olive green precipitates with salts of iron, and yielding no pyrogallic acid on destructive distillation. The tannin of catechu is soluble in cold water; catechu also affords a peculiar principle, which has been named *catechin* and *catechuic acid*, which is not soluble in cold water, but is slightly so in the solution of the tannin of catechu. Catechu is extensively used in Indian tanning, and of late years has also been much used in Britain. It tans the skins with great rapidity, but the leather is light, spongy, permeable to water, and of a dark reddish fawn colour. The light-coloured variety of catechu produces a softer leather than that tanned with cutch. Catechu produces but little of the deposit of bloom which is yielded by oak-bark, valonia, and divi. A pound of catechu is said to be sufficient for the production of about a pound of leather. Catechu is used by calico printers, to produce a fast bronze on cotton fabrics. When of good quality, catechu is more powerful as an astringent than kino. Of all known astringent substances the catechu appears to contain the largest proportion of tannin, and Mr. Purkis found that one pound was equivalent to seven or eight of oak bark for tanning leather. The manufacture of catechu from the *Acacia catechu*, as practised in Canara and Behar, was described by Mr. Kerr (*Med. Obs. and Inquiries*, vol. v.), and Dr. Hamilton (*Journey through Mysore*, &c., vol. iii.), and Professor Royle explained, as follows, the process in Northern India. There the kutt manufacturers move to different parts of the country in different seasons, erect temporary huts in the jungles, and selecting trees fit for their purpose, cut the inner wood into small chips. These they put into small earthen pots, which are arranged in a double row, along a fireplace built of mud; water is then poured in until the whole are covered; after a considerable portion has boiled away, the clear liquor is strained into one of the neighbouring pots, and a fresh supply of the material is put into the first, and the operation repeated until the extract in the general receiver is of sufficient consistence to be poured into clay moulds, which, in the Khere Pass and Doon, where he has seen the process, are generally of a quadrangular form. This catechu is usually of a pale red color, and is considered there to be of the best quality, conveyed down the Ganges, it meets that from Nepaul, so that both may be exported from Calcutta.

The Acacia catechu is indigenous, also, in Burmah, rising sometimes to a height of forty feet. Its timber is tough and durable, much used for ploughs. In Burmah, to make the catechu, cutch, or terra-japonica, chewed generally with the betel nut, the wood is hewed into chips, boiled, and the liquor inspissated till it become thick enough to spread on a mat, when the drying is completed in the sun. It dissolves completely in water, is slightly bitter, highly astringent, and contains fifty-five parts in a hundred of tannin. Burmans make two kinds, the red and the black—both from the same tree. The red is preferred in Bengal, and the black in China. It is chiefly made in the neighbourhood of Prome, though the tree is found in all parts of the country. Catechu or cutch is undoubtedly one of the most important exports of Burmah, and Pegu cutch has obtained a reputation, which will always give it a preference in the market. Acacia catechu, the tree from which it is procured, begins to appear about six miles to the north of Rangoon, and from thence it increases both in the number and size of the trees, until it constitutes the prevailing character of the forests to the north-east of Prome, where the trees are fifty to sixty feet high with a girth of seven or eight feet; and it is said to attain even a larger size in the Burmese territories laying north of the boundary. It is found plentifully in the northern part of the Tharawaddy district, but it is scarcely to be seen on the Toungboo side of the hills. Thus it is entirely confined to the valley of the Irawady. The manufacture of cutch is scarcely known or practised below Meeaday, and that which finds its way into the market as Pegu Cutch probably comes chiefly from beyond the frontier. There is no reason why it should not be manufactured largely from the parallel of Henzadah upwards, as the tree from thence becomes inexhaustible, growing over rich rice plains in places of easy access. The catechu obtained from this tree in Pegu, fetches £4 to £5 more per ton than gambier and other astringent extracts.

At the Madras Exhibition of 1855, catechu was seen in the form of—1. Circular flat cakes from Travancore, covered on both sides with paddy husks. 2. Large flat cakes from the Northern Division, varying in colour from brick dust to dull yellow. 3. Round balls of a dark brown colour, the size of a small orange from Mangalore, where a large manufacture takes place. These sorts appeared identical or nearly so, varying only in shape.

Three chief varieties of catechu are described by Fee, and other eminent writers on Pharmacy; viz., that of Bengal, Bombay, and the catechu in masses. Bengal catechu is in pieces of 3 to 4 ounces each, partially rounded, of dull red colour, covered with seeds on one side, fracture dull, undulated, and often marbled; taste astringent and subsequently sweet, powder grey; tannic acid 48·5 per 100. Bombay catechu is in pieces of 2 to 3 ounces, flattened and round, of brown colour, with seeds externally and internally, fracture shining, and rarely marbled; taste bitter, without any succeeding sweetness; powder brown grey; tannic acid 54·5 per 100. Massive catechu is found in the bazaars in pieces of 3 or 4 ounces, fragments of larger masses, reddish or blackish brown, uniform, shining, wrapped in large nerved leaves, fracture uniform, flavour very astringent, somewhat bitter, with an after sweetness; powder orange. Proportion of tannic acid very variable. The best catechu is of uniform liver brown colour; often adulterated with red clay; this is detected by incineration. Pure catechu leaves no more than 5 per 100 of earthy matter. According to Dr. Royle, catechu is seen either in square or roundish pieces or balls, varying in colour, from a pale whitish or light reddish-brown to a dark brown colour; either earthy in texture, or lamellated, or presenting a smooth shining fracture. Some kinds are hence more friable than others; all are without smell; the taste is bitter, astringent, followed by a little sweetness. The pieces are generally of a darker colour externally than they are in the inside. Some of the kinds are covered with rice husks, others are enveloped in the leaves of Nauclea Brunonis, a native of the Malayan peninsula. The pale variety is usually distinguished from the dark coloured, and said to be imported from Calcutta; but Dr. Royle obtained both kinds in the bazaars there, the pale being imported from the upper Provinces, and the dark from Pegu and Singapore. The dark brown catechus are obtained from Bombay; but both kinds may no doubt be prepared from the same tree, as a greater degree of, or longer continued heat, and greater exposure to light, is said to produce the dark colour. The dark are heavier, more dense in texture, and have a resinous fracture. The largest portion of good catechu is taken up by water, especially when boiling, the infusion being of a light or reddish-brown colour, according to its strength: it reddens litmus, and is strongly astringent in taste. From forming a crude precipitate with a solution of gelatine, catechu is applicable to the tanning of leather, for which it is now much employed. Sir H. Davy, in analysing the Dark and Pale Catechu, or the Bombay and Bengal, as they were called, obtained from

	of Tannin	Extractive	Mucilage	insol. residuum.		
Dark Catechu	109	68	13	10	=	200
Pale do.	97	73	16	14	=	200

The tannin of catechu is very similar in properties to that obtained from galls. The principle called Extractive by Sir H. Davy, has by others been called Resinoid matter, Resinous Tannin, and of late Catechine and Catechuic acid. This is most easily obtained by treating gambier with cold water. When of good quality, catechu is a more powerful astringent than kino. Catechu is much used in medicine as an astringent and tonic, being usually given in combination with aromatic and earthy substances; the dose is 10 grains, repeated according to circumstances. Dr. Timmins employed catechu in lieu of galls in the treatment of 175 cases of fever, and with equally satisfactory results. Two cases only required quinine. The dose was the same as that of gall powder, given with infusion of chiretta. The article produced in Malaya, from the Uncaria gambier, has lately been exported from Singapore to England in large quantities for tanning.—*Simmonds' Commercial Products, p.* 496. *Malcolm's Travels in South Eastern Asia*, i. 187. *McClelland's Reports. Mad. Exh. Jur. Report. O'Shaughnessy's Dispensatory, p.* 302. *Royle. Mat. Med. p.* 351. *Faulkner.*

CUTCHE CUTTE MARAM, also Ven Taku Maram. TAM. Lagerstræmia microcarpa.

CUTCHERRY. ANGLO-HIND. In British India, an office of a revenue magistrate, a bureau, or a court of justice.

CUTCH GANDAVA, is the plains of Beluchistan. See Tor.

CUTCH. RUNN of, an extraordinary salt water marsh, covering 7,000 square miles, or a larger area, than that of Yorkshire, about one-fourth that of Ireland; evidently the dried up bed of an ancient inland sea; it was lowered in its level by the earthquake of 1819. *McMurdo's account of traditions regarding Cutch, in* 1815. *Appendix to Burnes' Bokhara Travels. Dr. Buist's Catalogue.* See Cutch.

CUTCHU—? Caladium esculentum.

CUTCHWAHA, Pirthi Raj was rao of Amber, a name now lost in Jeipoor. The twelve sons of this prince formed the existing subdivisions or clans of the Cutchwaha, whose political consequence dates from Humayoon, the son and successor of Baber.—*Tod's Rajasthan, Vol. i. p.* 299.

CUTHAH VARE KAI. TAM. Cyamopsis psoraloides. Dolichos fabæformis.

CUTTACAMBU. Gambier.

CUTLERY. The rude and simple implements and tools, which ordinarily supply the wants of the natives of India, the little requirement for cutting instruments as articles for domestic use, and the cheap and abundant imports of the several articles of cutlery, all tend to depress the local manufacture;

yet Salem and Trichinopoly afford abundant evidence of the skill with which this description of manufacture can be carried on. At the Madras Exhibition of 1855, the knives exhibited (or more strictly daggers) from the Northern Division were very good both as to the great excellence displayed in the workmanship, and as to the beauty and delicacy of the damasked surface between the highly polished and keen edges of the blade. They exhibited in a high degree the proficiency of the operatives in that part of the Madras Presidency.

The Salem cutlery may compete with that of Europe, though the prices are considered comparatively high, and the neatly executed and finished spear heads are superior.

The articles sent to the Exhibition from Austin, a cutler of Trichinopoly, although exhibiting considerable skill in manufacture, were inferior in workmanship to those from Salem. They are however much more moderately priced. The silver ornamental handled knives especially, are considered cheap and very good specimens of an art peculiarly Indian.—*M. E. J. R.*

CUTT. CAN. Catechu. ENG.

CUTTACK, a town and district in the province of Orissa; Cuttack being Orissa proper, is about 200 miles long; but the Ooryah people occupy about 250 miles. The following is the area—Pooree 2,697 square miles, Cuttack 3062, Balasore 1890. The area of the Cuttack tributary mehals is about 15,000 square miles. The Mahanuddy river aided by some of the large streams from the north has formed a rich delta. From the town of Pooree containing the great temple of Juggernath, conspicuous from the sea, to the Dhamrah river south of the Balasore district, there is a deltaic tract fully 50 miles broad, and which comprises nearly the whole of the Cuttack district, great part of that of Pooree, and a portion of that of Balasore. In addition to the low districts, Orissa has an enormous tract of hilly country of the interior, the population of which is partly Ooryah and partly aboriginal; this latter portion is administered under the Commissioner of Cuttack as superintendent. There are eighteen estates known as the Cuttack Tributary Mehals, viz.:

Mohurbhunj.
Keonjhur.
Nilghur.
Dekanal.
Angool.
Duspulla.
Talchir.
Hindole.
Nursingpore.
Tigerea.
Barumba.
Kundiaparra.
Nyagurh.
Runpore.
Autgurh.
Banki.
Boad.
Autmullick.

Angool and Banki were annexed for the misconduct of the rajahs. The other sixteen tributary rajahs administer civil and criminal justice, controlled by the Superintendent. The most powerful of the chiefs are the rajahs of Mohurbhunj and Keonjhur, both of whom rendered good service during the mutinies. Cuttack has been subjected to great vicissitudes from inundations and famines. Frightful inundations occurred in 1823 and 1831, on one occasion causing a destruction of lives estimated at 10,000, and the entire population of 300 villages is said to have been destroyed. In 1867-68, a severe famine occurred. The report of the three Commissioners embraced Cuttack, Pooree, and Balasore, viz., the three districts of Orissa, omitting the hill tracts—in which the famine raged with greatest intensity, and continued longest—Manbhoom, Singbhoom, Midnapore, Bancoora, Raneegunge, Burdwan, Hooghly, Howrah, Nuddea; the extent of the mortality never can be ascertained with any accuracy, but Mr. Ravenshaw estimated it at not less than one-fourth of the population. The people of Orissa are of a character and have a language peculiar to themselves.—*Annl. Ind. Adm Vol. XI. p.* 263, 264. *Aitchison Treaties, &c. p.* 184. *A. Stirling in As. Res. vols. XI. XII. and Cal. Rev.* 1848, *vol. IX.* 190. *G. A. Prinsep on Saugor island* 1832. *Bl. As. Trans.* 1832. *vol. I.* 25. *Dr. Buist's Catalogue.* See Inscriptions, p. 371. Karli, Kol, Orissa, Sunderbun.

CUTTÆKARE, or Giant's Tank in Ceylon, is now out of repair.—*Sirr's Ceylon.*

CUTTEAMUNDOO, is the juice of the plant Akoo Chenroodoo, or Euphorbia cuttimundoo, and is used in cementing iron, with other substances, the blade and handle of a knife for instance: it is common in the Northern Circars. It is also called Bramah Chemoodoo. At the Madras Exhibition of 1855, Mr. Elliot exhibited seven articles (basin, ewer, tumbler, &c.) made of cutteamundoo gum, moulded with the hand, without any preparation. The fresh juice is used as a vesicant, and also as a cement for fastening knife handles, &c. For the introduction of this interesting substance, a medal was awarded to Mr. Elliot at the London Exhibition of 1851, and for the further application of it to useful purposes, the Madras Jury awarded Honorable mention. Several consignments have been made by Messrs. Healy and Lutrell, of Vizagapatam, and 2 cwts. were sent by request to Professor Solly, Society of Arts, London. The samples exhibited illustrate the variety of uses to which this gum elastic may be applied.—*M. Ex. Jur. Rep.* See Gutta.

CUTT'H. CAN. Catechu.

CUTTHALAY NAR. TAM. Fibre of Calotropis gigantea.

CUTTLE FISH BONE.

Darya ka kaf	HIND.	Samudrapu nurugu	TEL.
Kaddalnoray	TAM.	Sorupenka,	„

This is found on the coasts and is used for rubbing down paint, &c. by the moochies, also for the purpose of cleaning and polishing the surface of silver and other metals. In Sepia officinalis the soft parts are supported by a firm calcareous bone, the well-known cuttle-bone of the shops, and in all the naked Cephalopods (not including Ocythoe) now existing, it would appear that some rudiment at least of a bony, horny, or cartilaginous support is to be found.—*Engl. Cyc. p.* 820. *Rohde's MSS.*; *Ains. Mat. Med. p.* 152.

CUTTONORA, the Cuttiara of Ptolemy, supposed to be either Calicut or Cochin, whence pepper was exported to Barace.—*Ind. in 15th Cent.*

CUTTY, the term applied in Southern India to the iron-bloom of native manufacture.

CUTWAL, a military police officer,—the police officer of a military bazar. The word is properly Kot-wal, a fortress holder, but is not so applied.

CUTWAH, a town on the Bhagarathi river. Cutwa is Arrian's Katadupa. Indeed, Katwadweep, and Agradweep, and Nabadweep, all refer to a period when they must have been regular dweep or islets, to have received such names. To the vaishnava sect, Cutwa is a sacred place of pilgrimage; there, Choitunya, flying from the roof of his parents, and leaving behind his wife, embraced the dandi sectarianism to shake off the obligations of society and the cares of a secular life. He was initiated into its rites by a gossain, named Kesab Bharuty, and the hairs shaven from his head on the occasion are yet preserved in a little white temple.—*Tr. of Hind. Vol.* i. *p.* 49.

CUVALAM. MAL. Ægle marmelos.

CUVERA. See Lakshmi.

CUVIER. The voluminous work by Baron Cuvier and M. Valenciennes, "Histoire Naturelle des Poissons," published in Paris in 1828 and following years, was of great value to science. It contained much information as to the fishes of India.

CUYOS ISLANDS, in the Mindoro sea named from Grand Cuyo, the largest, consist of an extensive range or archipelago, of mostly high rocky islands, they extend from lat. 10° 40' to 11° 30' N. and are in long. 121° 11' E.—*Horsburgh.*

CYAMEA OF PLINY, the Cameo of the present day.

CYAMOPSIS PSORALOIDES. *DC., W. and A., W. Ic.*

Dolichos psoraloides,	*Lam.*	Trigonella tetrapetala,	*Roxb.*
Dolichos fabæformis,	*Roxb.*	Lupinus trifoliatus	*Cav. Icon.*
·	*L'Her.*		
Psoralea tetragonoloba,	*Linn.*		

Pai-pa-Soon,	BURM.	Kot-avere, Kothu-avare,	TAM
Guvar-phalli,	GUZ.	Kothu avara-kailu	TEL
Gouari, Gour,	DUK. HIND.	Goru-chikudu	„
Matt-ki phalli,	„ „		

An erect annual; cultivated during the cold months in gardens for the little flat pods, which are used in curries, as a substitute for French beans; grows from 2 to 3 feet high; the pods are seldom very tender, but are esteemed a good vegetable.—*Mason. Jaffrey. R. Br.* See Vegetables of Southern India.

CYANECULA WOLFII, the Phœnicura suecica, 'Blue-throated Warbler' of Europe, W. Asia, Japan (*Temminck*), N. Africa; rare in Britain: migratory: abundantly replaced in India by C. suecica, and in middle Asia, Afghanistan, &c., by C. cærulecula (Cyane of Eversmann); the first known by its pure white pectoral spot, which spot is always deep ferruginous in the Indian bird, and is wanting in that from middle Asia.

CYANOTIS, a genus of unimportant plants with blue flowers, of the nat. order Commelynaceæ, of which the following species occur in S. E. Asia.

africana
axillaris
avenæfolia
barbata
Burmanniana,
cristata,
cyanea,
decumbens,
dichotricha,
ensifolia,
fasciculata,
gracilis
lanceolata,
Lawiana,
longifolia,
Nimmoniana,
papilionacea,
pilosa,
rosea,
sarmentosa,
tuberosa,
undulata,
vaginata.

CYATHEA ARBOREA.

Aspidium arboreum, *Moon.*

Tree fern.	ENG.	Æt-musana	SINGH.

This fern rises in Ceylon 25 to 30 feet. Its stem makes beautiful walking sticks. The section of this tree fern displays well the structure of an acrogenous stem, hollow in the centre, marked on the outside by the scars of the fallen leaves, and showing the elongation of the axis by junction of the petioles.—*Madras Hort. Garden.* 87. *M. E. J. R.*

CYATHEA MEDULLARIS, the tree fern of Norfolk Island, is about twenty feet in length, and presents a beautiful appearance.

CYATHULA ORBICULATA. See Sand Binding Plants.

CYATHOCALYX ZEYLANICUS. CHAMPION; *H. f. et T.*

Kakalas	SINGH.	Eepettas	SINGH.

The light lacquered Kandyan sticks are said to be made from this Ceylon tree.—*Fergusson.*

CYAXARES, king of Persia, allied himself with Nabopolassar, against Sardanapalus, king of Assyria. Nabopolassar was father of

Nebuchadnessar, and became satrap of Babylon in the 123rd year of Nabonassar. In alliance with the Medes he checked the career of the Assyrians, and raised Babylon to the position of the seat of empire of Western Asia.—*Bunsen* iii. 435.

CYBELE. See Saraswati, Osiris.

CYBIUM GUTTATUM. Tora-Malu. SINGH. The finest table fish of Ceylon. Its flesh is white, but resembles that of the salmon in firmness and flavour. Cybium guttatum, one of the scomberoid fishes, known to Europeans as the seir fish.

CYCADACEÆ, a natural order of plants of which Lindley makes four genera and includes about fifty species. They have a simple cylindrical trunk, which increases by the development of a single terminal bud, and is covered by the scaly bases of the leaves. They all abound in a mucilaginous, nauseous juice, and the soft centres of Cycas circinalis and C. revoluta are convertible into a kind of sago. There are eight species of Zamia, and five species of Cycas, some of which grow in India, and in the islands of the Eastern Archipelago. The species of Encephalartos are called Kaffir-Bread. The seeds of Dion-edule yield starch in Mexico. A similar substance, under the name of sago, is obtained from species of Zamia in the Bahamas and other West India Islands; in Japan from Cycas revoluta; and in the Moluccas and Southern India, the Cycas circinalis yields a coarse kind of flour and also yields a transparent gum.—*Voigt. p.* 554. *Eng. Cy.*

CYCADEA. See Coal.

CYCADS. A name of the Cycadaceæ.

CYCAS. *Species,* very ornamental species of Cycas occur in the Karen forests resembling a low palm, but which has never yet been introduced around European gardens.—*Mason.*

CYCAS ANGULATA. The fruit forms the principal food of the Australian aborigines during a portion of the year. They cut it into thin slices, which are first dried, afterwards soaked in water, and finally packed up in sheets of tea-tree bark. In this condition it undergoes a species of fermentation, the deleterious properties of the fruit are destroyed, and a mealy substance with a musty flavour remains, which the natives of Australia probably bake into cakes. They appear also to like the fruit of the Pandanus, of which large quantities were found by Dr. Leichardt in their camps, soaking in water, contained in vessels formed of stringy bark.—*Simmonds.*

CYCAS CIRCINALIS. LINN.

C. sphærica,	*Roxb.*	Olus calappoides	*Rum*
C. inermis,	*Lour.*	Sayor callapa of	*Rumph.*
Buzoor Butu of	BOMBAY.	Madoo Gass	SINGH.
Mudang	BURM.	Paku Tundu	SUMAT.
Broad-leaved Cycas,	ENG.	Vara guna	TEL.
Todda Pana	MALEAL.	Wara guda	,,
Ka boug	MALAY.	Raua Guvva	,,

This very handsome tree, in appearance, resembles the palm tribe. It grows in Ceylon up to 1500 feet, is common on the western coast from Tellicherry to the foot of the ghats, and occurs northwards towards Bombay, is also common in the Karen forests of Tenasserim, in Sumatra, Java, and the Moluccas. It resembles a dwarf cocoanut tree, its blossoms are yellow. In Sumatra, the cabbage and the young shoots are eaten. It yields a gum resembling tragacanth, also a kind of sago, and a flour called "Indapodi" is obtained from the nuts or seeds, which is made into cakes and eaten by the Singhalese, and is reputed a remedy for some disorders.—*Mason's Tenasserim, O'Shaughnessy p.* 622. *Thw. En. Pl. Zeylan, p.* 294. *Marsden's Hist. of Sumatra p.* 89. *quoting Rumphius, Vol. I. p.* 22.

CYCAS INERMIS. LOUR. Syn. of Cycas circinalis, *Linn.*

CYCAS PECTINATA. W. is a sago palm which grows in Sikkim, on the flats by the streams. Its stem is ten feet high, with a beautiful crown of foliage.—*Hooker, Vol.* i. *p.* 151.

CYCAS REVOLUTA, THUNB. A native of China and Japan; a kind of starch, the Japan sago is obtained from the cellular substance. The whole plant yields a copious mucilage, which hardens into a transparent gum.—*O'Shaughnessy, page* 682.

CYCLADES, See India, p. 353.

CYCLAMEN EUROPÆUM, W.

Common Cyclamen.	ENG.	Bokhoor-miriam,	ARAB.
Hathajooree,	HIND.	Punjeh-miriam,	,,
Urtenysa,	ARAB.	Shajrah-miriam,	,,
Ussul-ul-urtenysa,	,,		

CYCLAMEN PERSICUM. One of the Primulaceæ, a bulbous species of flowering plants thriving in a light vegetable mould, and may be cultivated by its seed or tubers.—*Riddell.*

CYCLANTHERA PEDATA. One of the Liliaceæ, a species of flowering plants grown and cultivated as the Cyclamen.—*Riddell.*

CYCLAS, a genus of molluscs. See Mollusca.

CYCLE. Eastern races have their chronological cycles. The Chinese astronomical cycle of 60 years, in use since the 61st year of Hoang-ti, is the most ancient form of a primitive and very simple equation of lunar and solar years. Its 76th recurrence fell in 1864. The Triakon tæteridæ of the Egyptians, of 30 years, led to the cycle of 60 years. There were Indian cycles, of 5 years, the result of a rude equation; the Chaldee cycle of 600 years was of later date. The 12 yearly zodiacal cycle is in use amongst the Mongol, Mantchu, and Igurian Tartars, and amongst the inhabitants of Tibet, the Japanese, and the Siamese. Amongst the Tataric populations, however, this is a cycle of 60 years (12 × 5). The cycle of the Chaldees was of 60 years, but they had one of 60 × 10 = 600, which grew out of the great patriarchal year. The oldest cycle known to the Greeks was one of 9 years, which gave way to the Metonic cycle of 19 years, but one of 60 years was in use amongst the Semitic and Iranian races of primeval Asia, as well as amongst the Chinese. Plutarch considers the 60 years cycle as the original one known to all astronomers. The Apis cycle was of 25 years, and 59 of these make up the Sothaic year of 1460 years, with 15 years over; the Phœnix cycle was 500 years—*Bunsen*. i., ii, and iii. 615.

CYCLEA BURMANNI. Arnott.

Cocculus Burmanni	*D.C.*	Menispermum peltatum	*Gart. Lam.*
„ peltatus	*D. C.*		
Cissampelos discolor	*Wal.*	Wal tjedde	SINGH.
		Pada Valli	MALEAL.

This trailing shrub grows in Ceylon, Malabar, Konkan and Coromandel; by native practitioners the bitter root is mixed with butter, milk and cummin seeds, and given in dysentery, hemorrhoids, and flatulency, and the juice of its leaves is applied to inflamed eyes. —*Useful Plants. Voigt p.* 33.

CYCLONE. Eng.

Hurricane,	ENG.	Travado,	PORT.
White Squall	„	Tornado,	SPAN.

Cyclone is the term applied to the furious tempests formerly called taifun, typhoon, or hurricane, because of their being uniformly found to be whirlwinds. They revolve round a centre, while the centre itself advances, and thus sweeps with destructive violence over vast areas of sea and land. Cyclones occur in the Bay of Bengal, in the Indian Ocean, both to the north and south of the equator, and in the China Seas; but according to Professor Bikmore (p. 82), they have never been experienced in all the wide area between Java and the line of islands east to Timur on the south, and the tenth degree of north latitude.

The China Seas are notorious for their furious gales of wind, which are known among seamen there as typhoons and white squalls. The Chinese seas are within the region of the monsoons of the Indian Ocean, but the monsoons of the China Sea are not five month monsoons: they do not prevail from the west of south more than two or three months. Between 15° and 20° north, 110° and 115° east, there appears to be a system of three monsoons; that is, one from the north-east in October, November, December and January; one from east in March and April, changing in May; and another from southward in June, July and August, changing in September. The great disturber of the atmospheric equilibrium in the southern Asiatic regions appears to be situated among the plains and steppes of Asia; their influence reaches up to the clouds, and extends to the China Seas, and there it is about the changing of the monsoons that the awful gales called typhoons and white squalls are most dreadful. In like manner, the Mauritius hurricanes, or the cyclones of the Indian Ocean, occur during the unsettled state of the atmospheric equilibrium, which takes place at that debatable period during the contest between the trade-wind force and the monsoon force, and which debatable period occurs at the changing of the monsoon, and before either force has completely gained or lost the ascendency. At this period of the year, the winds breaking loose from their controlling forces, seem to rage with a fury that would break up the very fountains of the deep.

A typhoon which occurred in China in September 1855, was preceded by a rising of water in wells and ponds many miles inland. When the cyclone reached the coast it submerged about a hundred square miles, occasioning a vast destruction of life and property. The waters of the sea were retained in the country by strong easterly winds for several days, leaving a strip of land bordering on the sea quite dry.

Indian Ocean. Gales and hurricanes occur in the Indian Ocean south of the equator. Trade wind gales occur at all seasons, but chiefly in June, July and August. In these, the wind veers but little; in the extra tropical gales between L. 30° and 45° S. the wind veers much; and in the tropical hurricanes the winds veer and shift. The S. W. monsoon prevails north of the equator, and when it prevails the south-east trade wind acquires additional strength from the demand made upon it to supply the south west monsoon—these two winds being apparently one system under the influence of the earth's rotation and the high temperature which prevails in the northern hemisphere. The hurricanes of the Indian Ocean are usually rotatory. This was shown by Redfield, Thom, Reid and Piddington. South of the equator, they occur in the months of November to May, and travel to the W. S. W., and afterwards, but not always, to the southward and S. E., the wind invariably moving round a central space (which is usually characterised by a calm) from left to right, or with the hands of a watch; while the storm, which has a diameter of 1 to 1500 miles, moves onwards at the rate of 1 to 20 miles, but more frequently 4 to 7 miles an hour; for a period varying from a few hours to ten days, attended with torrents of rain and its northern half often with lightning. Dr. Thom showed that, south of the equator, these rotatory storms are always generated between the N. W. monsoon and S. E. Trade wind. They occur only during the S. W. monsoon months, and their rise and progress are intimately connected with the S. East trade wind and N. W. monsoon—two opposing winds. With ships, the safest course is to lie to and watch the barometer and wind, till the bearing of the centre be known with some certainty.

India. Amongst the calamities that have overtaken the Soonderbuns, have been great inundations caused by cyclones. About the year 1584, the tract lying between the Horinghatta and the Ganges, known as the Backergunge or Burrisal district, was swept by an inundation, succeeded immediately afterwards by an incursion of Portuguese and Mugh pirates. In June 1622 this same tract was again inundated, 10,000 inhabitants perishing, and many houses and much property destroyed. In A. D. 1737 happened the great Calcutta storm. In A. D. 1736 the river Megna rose six feet above its usual level at Lukhipoor. The cyclone of 1831, over Calcutta, swept away 300 villages and 11,000 people. In A. D. 1833 Saugor Island was submerged 10 feet; the whole of the population, between 3,000 and 4,000 souls, together with some of the European superintendents, perished; at Kedgeree, a building 18 feet high was completely submerged: the "Duke of York" East Indiaman was thrown high and dry in the rice-fields near Fultah in the Hoogly, and in A. D. 1848 the Island of Sundeep was submerged. A cyclone is mentioned as occurring in Calcutta in 1859, attended with a great loss of life. A cyclone of the night of the 5th October 1864 came from the sea, passed over Calcutta, and foundered and stranded steamers and ships of 2000 tons burthen, and swept away every tree and building in a tract 300 miles long. This one, originating near the Andamans, travelled in a north-west direction, and struck the coast of Bengal at the Balasore roads and Hidgellee. Thence it passed over Calcutta on the 5th October, over Kishnaghur and the Bograh district, and finally expended its strength in the Garrow hills. The wind destroyed much, but it brought with it a storm-wave 30 feet high, which flooded the country for a distance of eight miles on both sides of the Hoogly river.

In Calcutta, and in Howrah on the right bank of the Hoogly, the partial or complete destruction of 196,481 houses and huts told a sadder tale than even the violent death of human beings. But widespread ruin swept over the fertile tracts of Midnapore, and over the Soonderbuns, which had been recovered from total inundation by the efforts of a quarter of a century, and the expenditure of millions of rupees. In many districts, there, no less than three-fourths of the whole population, their cattle and other property, were engulphed in sudden destruction. Had the Hooghly been the Thames, and London—not so densely populated—Calcutta, a cry would have gone up which would have thrown the earthquake of Lisbon and similar catastrophes, famous in history, into the shade. In all, about 100 ships were lost and 60,000 persons perished.

On the 1st November 1864, the coast of Masulipatam was visited with a cyclone, which formed a storm wave that was driven onward by the cyclone between 12 and 13 feet beyond the ordinary high water mark, and rushing inward for an average distance of nine, and in one case seventeen miles from the shore, submerged for the time an area of 780 square miles, and upwards of 30,000 people were drowned. The wave rose six feet above the surface of Masulipatam, and washed away three-fourths of that ancient city.

On the 1st November 1867, a cyclone rolled up the Hooghly, and devastated many of the eastern districts, with a violence equal to that of the cyclone of 1864. By the labours of Mr. Redfield, Dr. Reid, and Mr. Piddington who have studied the origin and nature of hurricanes, typhoons, or revolving storms, the following important results have been obtained: Their existence in moderate latitudes on both sides of the equator; their absence in the immediate neighbourhood of the equatorial regions. In the northern latitudes these storms revolve in a direction contrary to the hands of a watch the face of which is placed upwards; in the southern latitudes they rotate in the opposite direction—additions to the long chain of evidence by which the rotation of the earth as a physical fact is demonstrated.—*Dr. Buist's Catalogue. Curiosities of Science, p.* 164. *Cal. Review,* 1868. *(Colonel) Capper's Notice of Trade Winds and Monsoons,* 1 *vol.* 4*to.* 1800. *Piddington on the Law of Storms. North China Herald 22nd January* 1856. *Prof. Bikmore's Travels, p.* 382. *Maury's Physical Geography of the Sea p.* 287, 424. *Mr. Meldrum in Pro. Brit. Assoc.* 1867. *Calcutta Review.* See Monsoons. Pulo Aor or Wawoor. Pulo Repon or Saddle Island. Pulo Pisang or Pambeelan. Typhoon. Gales. Hurricanes. Winds.

CYCLOPES OF GREECE, are supposed by Pococke to be the Gucla-pes from the Jumna or Guckla-des. This derivation would designate them as a pastoral race, from Go, Sansc. a cow, but their great irrigation works denote them an agricultural population. A race at some remote time have occupied Beluchistan, who raised great irrigation structures similar to those in Greece, and in the peninsula of India are many vast irrigation structures. The tank at Cumbum, the Hoossain-Saugur tank at Secunderabad, the lake or tank near Bangalore, are each about seven miles in circumference. The Mir Alam lake at Hyderabad, formed during a famine to provide food, cost £130,000, has a steamer on it and a great lake formed in a famine by the damming up of the Gomti river, cost £1,500,000. See Kelat, p. 490. Lakes.

CYCLOPHORUS, Cyclostomus, Cyclotopsis, Cyclotus, are genera of molluscs.

CYCLOSTEMON ZEYLANICUM. Baillon, Sphragidia Zeylanica, *Thw*, grows in the central province of Ceylon, at an elevation of 3,000 feet.

CYDONIA, a genus of plants belonging to the nat. ord. Pomeæ, of which four species are known, C. Japonica, C. Sinensis, C. tomentosa and C. vulgaris, C. Japonica, *Pers.*, the Japan quince tree, has large crimson flowers, C. Sinensis, *Thouin*, is the Chinese quince, C. tomentosa, *Roxb.*, the woolly quince, is cultivated in some gardens of Ajmir, where it is known as the "Valaiti Bihi," or foreign quince ; it is the same as C. vulgaris.—*Gen. Med. Top. p.* 195. *Voigt.*

CYDONIA VULGARIS. Pers.

Pyrus cydonia	*Linn.*	Pyrus tomentosa	*Roxb.*
Hubusu firjul	Ar.	Bihi	Hind. Pers.
Common quince tree	Eng.	Safarjal	Malay
χυδονία	Greek.		

This small, crooked, and much branched tree, grows in the south of Europe, in Persia, in great abundance at Nuggur, in the N. W. Himalaya and in Hindustan, and is cultivated from Kabul to Kashmir. Flowers few, of a white or rose colour. The fruit is of a yellow colour, downy and remarkable for its fine odour. The seeds, called Bihi-dana, are in great use medicinally, being brought into India from Persia, Kabul, Kandahar and Kashmir, and are highly valued as a demulcent tonic. It contains some astringent matter. It is now made into a preserve or used for flavouring the preserves of other fruits. There is a "tursh" or bitter, and a "shirin" or sweet quince.—*Dr. Royle. O'Shaughnessy, p.* 330. *Roxb.* ii. *Voigt. p.* 191. *Dr. J. L. Stewart Panj. Plants. Cleghorn Punjab Report. Kullu and Kangra. p.* 81.

CYGNUS, a genus of birds, of the sub-family Anserinæ, Family Pelicanidæ, Tribe Toti-palmatæ, and order Natatores or swimmers ; in their classified position, Sub-family. Anserinæ.

Div. i. *Swans*, Cygnus musicus, C. atrata, and C. olor.
Div. ii. *Geese*, Anser 3 sp. Bernicla 1 sp.
Div. iii. *Perching Geese*, Dendrocygna 2 sp. Sarcidiornis 2 sp. Nettapus 1 sp.
Div iv. *Shieldrakes*, Casarca rutila, Tadorna vulpanser.

Cygnus musicus, is the *Cygnus ferus*, or Hooper Swan, and is found in N. Europe, Asia, and N. Africa. It is migratory, and one specimen was obtained in the valley of Nepal.

Of *Anser*, the goose, the hans of India, the species A. cygnoides, A. cinereus, and A. brachyrynchus are known in India and the Punjab. Dr. Hooker mentions that A. Indica occurs at Siligori.

Anser cygnoides is domesticated in China.

Anser cinereus (*Anser ferus* ; 'Grey-lag goose.') Europe and Asia : common in India. The domestic goose of India is a hybrid between A. cygnoides and A. cinereus.

Anser brachyrynchus. ('Pink-footed goose.') Europe, N. Asia, Punjab (rare) ?

Bernicla ruficollis (*Ancer ruficollis ;* 'Red-breasted goose.') N. Asia, chiefly ; rare in N. India.—*Darwin. Bunsen. Burton's Sind,* Vol. II, p. 137. *Hooker, Him. Journ.*, Vol. I. p. 399. *Catal. Cal. Museum.* See Cygninæ. Pelicanus platifrons ; Birds ; Goose ; Hans ; Hensa ; Henza ; Natatores.

CYLLENE, Cylindra, Cylindrella, are genera of molluscs. See Mollusca.

CYMBIDIUM, a genus of orchidaceous plants belonging to the orchiaceæ, all of them with beautiful flowers.

C. alatum, Roxb. of Sunderbuns and Chittagong, has pale sulphur flowers.

C aloifolium, Swtz.; the Paras. Hind.

Epidendron aloifolium *L.*, Acrides borassii, *Sim.*

Flowers large, dull, purple, white edged, on most of the hills of India. This is a beautiful plant when in flower, and blossoms in April

C. aphyllum. Swz, the Limodorum aphyllum, *Roxb.* with yellow flowers, grows on the Coromandel coast.

C. giganteum. Wall, the Limodorum longifolium, *Buch.* grows on the Khassya and Nepal hills.

C. pendulum, Swz., the C. crassifolium. *Wall*, and the Epidendrum pendulum *Roxb.*, grows in the Khassya hills and in the peninsula of India.

C. triste, Willde, grows from Nepal and Ceylon to Japan and N. Caledonia, has small pale green flowers. It is the Epidendrum teres of *Thunb.* E. triste, *Forst*, and Linsia teretifolia, *Gaudichaud.*

C. lancefolium, Hooker, grows in Nepaul, and *C. Gibsonii, Wall*, C. inconspicuum *Wall*, C. Masterii *Wall.*, and C. striatum, *Wall*, grow on the Khassya Hills. Wight also gives C. erectum, C. tenuifolium and C. tesseloides.

CYMBIRHYNCHUS MACRORHYNCUS, called by the Malays the "Rain Bird," is the most beautiful of the Malacca birds, and is known to naturalists as the blue-billed gaper. —*Wallace.* i. 28.

CYMBOPOGON SCHÆNANTHUS. SPR. syn. of Andropogon schænanthus, *Linn.* Cymbopogon Iwaranchusa is the kham of the Panjab.

CYNANCHUM. Populus Euphratica, a Cynanchum, Chloris barbata, and Cyperus aristatus, all ascend to 11,000 feet in Ladak, are remarkable instances, as is Peganum harmala, which attains 9000 feet.—*H. et T.*

CYNANCHUM ARGEL. In small doses, the leaves are purgative, and they are much used in Egypt for adulterating senna. The Indian or Tinnevelly senna, is not liable to this adulteration, to which many practitioners attribute the severe griping which senna often occasions.—*O'Shaughnessy, p.* 450.

CYNANCHUM CORDIFOLIUM. RETZ. syn. of Dæmia extensa, *R. Brown.*

CYNANCHUM EXTENSUM. JACQ.

Dæmia extensa, *R. Brown.*

Utrum	DUK.	Vaylie parta	TAM.
Vughapala	SANS.	Zutupaku	TEL.

The leaves of this herbaceous plant have a disagreeable, and somewhat nauseous taste and smell. The juice of the leaves is supposed to possess an emetic, as well as purgative quality, and is said to be particularly useful in cases of jaundice: it is generally administered in cow's milk.—*Ains. Mat. Med. p.* 122.

CYNANCHUM IPECACUANHA. WILLDE. syn. of Tylophora asthmatica, *W. and A.*

CYNANCHUM MONSPELIACUM is said to be used to adulterate scammony.

CYNANCHUM OVALIFOLIUM of Penang, yields abundance of very fine caoutchouc. —*O'Shaughnessy, page* 51.

CYNANCHUM PAUCIFLORUM. R. BR.

Periploca tunicata *Retz.* | Asclepias tunicata *Roxb.*
Chagul patee. BENG.

A plant of the peninsula and of Bengal.

CYNANCHUM TINJERIS. HERB. HAM. syn. of Marsdenia tinctoria, *R. Brown.*

CYNANCHUM VIMINALE, LIN.

Kodiculla TAM.

The young shoots and tender stalks of this creeper are eaten by the natives. It must not be confounded with the Kalli (or Kodicalli, as it is sometimes called) which are the Tamil names of the milk hedge.—*Ainslie p.* 254.

CYNANCHUM VINCETOXICUM. See Cynanchum ipecacuanha.

CYNANCHUM VOMITORIUM. SIMS. syn. of Tylophora asthmatica, *W. and A.*

CYNARA SCOLYMUS. LINN.

Kirshuf	ARAB.	Artichoke	ENG
Kharchiof	,,	Garden Artichoke	,,
Kharsjuf	EGYPT.	Kanjir	HIND. PRS.

This plant has very large flowers, of a violet blue colour.

CYNARA CARDUNCULUS, the cardoon, is similar to the garden artichoke, but grows much higher, though cultivated similarly to the artichoke; indeed, plants of the latter, which grow to a large size might be used as cardoons; in order to prepare this vegetable, the leaves of the artichoke should be cut down, not destroying the heart, at the commencement of the rains; after the young leaves grow to the length of two feet, they should be tied together in a bundle, and earthed up like celery, at least one foot of earth should be raised round the plant. They will be fit for use in three weeks or a month, raised from seed. The plants, when a good size, require to be planted 2 or 3 feet apart in good soil. The tender stalks and leaves, when blanched, are used for soups and salads.—*Riddell. Jaffrey.*

CYNGHALESE, the people of Ceylon, also their language.

CYNIPS GALLÆ-TINCTORIA. See Galls.

CYNOCEPHALUS. CUV. A genus of quadruminous mammals, known as baboons. The generic name Cynocephalus, means, in the Greek, "dog-headed." The most marked and prominent of the characters which more immediately distinguish the baboons from the other Simiadæ, consist in the great prolongation of the face and jaws, and in the truncated form of the muzzle, which give the whole head a close resemblance to that of a large dog. In their native mountains, the ordinary food of the baboons is berries and bulbous roots; but in the vicinity of human habitations, they make incursions into the cultivated fields and gardens, and destroy a still greater quantity of grain and fruits than they carry away with them. C. Hamadryas, *Linn*, the "Derrias" is found in Africa and in the mountains of Arabia. It measures upwards of 4 feet when standing erect.—*Eng. Cyc.* See Mammalia.

CYNOCTONUM PAUCIFLORUM, DECAISNE.

Cynanchum pauciflorum, *R. Br.*; *W. Ic.*, not C. pedunculatum, *Thunb.* Kang-Koombala SINGH.

Very common in the central province of Ceylon. The Singhalese eat the young leaves of this, and of many other plants of this natural family, in their curries. Dr. Wight, in Icones, gives C. album and C. callialata.—*Thw. Enum. Pl. Zeyl. p.* 195.

CYNODON DACTYLON, PERS.

Panicum dactylon	*Linn* *Roxb.*	Agrostis linearis.	*Retz As. Res.*
Durbha	BENG. HIND.	Khabal	PAN.
Doob; Doobla	,,	Durva	SANS.
Hariali	DUK.	Hurrum Pillu	TAM.
Hurryalee grass	ANG. DUK	Arugam pilu	,,
Creeping Cynodon	ENG.	Garika Kasuvu	TEL.
Ghaner	HIND.	Tella Gariki	,,

The Cynodon dactylon, or Hurryallee grass of India, is considered the best for cattle. The root creeps through the loose soil to a considerable extent, and has strong fibres at the nodes. The stem rarely exceeds six inches in height. Florets are all on one side of the spike-stalk, awnless, purplish, and ranged in two close alternate rows. All the stems which lie near the ground take root, and by this means, though an annual plant, it increases and spreads very wide. It yields abundance of seed, of which small birds are very fond. It is good to allow the seed to ripen before the hay is cut, as it then propagates itself by seed, in addition to the runners. This grass is found in Great Britain, but its produce and nutritive properties are there comparatively insignificant, while in India it constitutes three-fourths of the pasture. Sir W. Jones observes (As. Res. vol. 4. p. 242) that it is the sweetest and most nutritious pasture for cattle and its usefulness, added to its beauty, induced the hindoos, in their earliest ages, to personify it as the mansion of a benevolent nymph, the A't'harvana Veda thus celebrates it: " my Durva, which rose from the water of life, which has a hundred roots and a hundred stems, efface a hundred of my sins, and prolong my existence on earth a hundred years."

It is the principal one of the Indian grasses, and is perhaps the most generally diffused, possessing much nourishing property in its long stems, no less than in its leaves. It endures the greatest elevation of temperature, as its roots penetrate far below the surface, and although, during the dry monsoon, giving no sign of life, it puts forth its tender leaves on the first approach of the rains. It grows throughout the year, and lawns and pastures of moderate extent are made by planting pieces of the creeping stems. It is also much used for forming a covering for the banks of rivers, ramparts and esplanades; the young and tender leaves are used in chatnies, and are considered very pleasant; the roots make a cooling drink. It is, also, one of the most abundant grasses on the Tenasserim coast, but it is much less conspicuous than many others.—*Mason. Cleghorn. Jaffrey.*

CYNOSURUS CORACANUS. LINN. syn. of Eleusine coracana. It is the korakan of the Tamuls, and the Ragi of the Dekhan, and is made into dark brown cakes. See Graminaceæ.

CYORNIS BANYUMAS. HORSFIELD, is a well known Javanese bird, only twice procured in India,— viz. by Mr. Jerdon in the Nilgiris, and near Calcutta.—*Jour. Ben. As. Soc. No.* 5, 1856. *Cal. Rev.* See Birds.

CYPERACEÆ. The Sedge tribe, a natural order of plants, species of which are found from the arctic to the antarctic circle, in marshes, ditches, and running streams, in meadows, on heaths, in groves and forests, on the seashore, and on mountain summits, wherever phænogamorous plants can exist. In Griffith's herbarium are 345 species of Indian Cyperaceæ, collected from the Himalaya to Mergui. The most useful of them are species of Cyperus, Euphorium and Papyrus. Anosporum monocephalum, *Nees,* one of the Cyperaceæ, is Roxburgh's Cyperus monocephalus, and the Gothoobi of Bengal.—*Voigt.*

CYNOGLOSSUM, a genus of the Boragineæ, natives of Europe, pretty little annuals, flowers mostly blue, purple, white and purple, grow in any common soil.—*Riddell.*

CYNOMETRA. The-meiu-ga, BURM. is a small tree of Martaban, and makes good small posts, &c., but is chiefly used for fuel. It is abundant in the lower provinces, but grows in the upper when planted, which is sometimes done for fuel.—*Malcolm's Travels in South Eastern Asia. Vol.* 1. *p.* 191.

CYNOMETRA CAULIFLORA. WALL. syn. of Cynometra ramiflora, *Linn.*

CYNOMETRA RAMIFLORA, LINN.

Cynometra cauliflora, *Wall.*

Branch flowered cynometra.	ENG.	Iripa.	MALEAL.
		Galmendora Gass,	SINGH.

A tree which attains a height of 60 feet, in Malabar, Java, the Moluccas, Sumatra, and in the western, eastern and southern provinces of Ceylon, at Batticaloa and Trincomalee. A cubic foot weighs 56 lbs., and it is said to last from 15 to 60 years. It is used for bridges and buildings, and is the best suited of the Ceylon woods for under-ground purposes. Its roots, leaves, and an oil from the seeds are used medicinally.—*Mr. Mendis, Useful Plants, Voigt, Thwaites.* ii. 97.

CYNOMORIUM. Dr. Wallich says there is a species of this fungus-like genus, which is parasitical on the roots of trees in the Tenasserim provinces, and valuable as a stypic. —*Mason.*

CYNOPITECUS NIGRESCENS, the black baboon monkey of Celebes.

CYNOPTERUS, a genus of bats which may be thus shown :—

Sub-order—Cheiroptera. Bats.
  Fam. -Pteropopidæ, frugivorous bats.
  3 Gen.—Pteropus, 4 sp.
    „ Cynopterus, 2 sp.
    „ Macroglossus, 1 sp.
    „ Nycteris, 1 sp.
  Fam.—Vampyridæ. Vampyre bats.
 Sub.-Fam.—Megadermatinæ.
  1 Gen.—Megaderma, 4 sp.
 Sub.-Fam.—Rhinolophinæ.
  5 Gen.—Rhinolophus, 11 sp.
    „ Cœlops, 1 sp.
    Rhinopoma, 1 sp.

Fam.—Noctilionidæ.
Sub.-Fam.—Taphozoinæ.
1 Gen.—Taphozous. 3 sp.
Sub.—Fam.—Noctilioninæ.
1 Gen.—Nyctinonus, 1 sp.
Fam.—Vespertilionidæ.
Sub.-Fam.—Scotophilinæ
3 Gen.—Scotophilus, 6 sp.
,, Noctulinia, 1 sp.
,, Nycticejus, 8 sp.
Sub.-Fam.—Vespertilioninæ.
8 Gen.—Lasiurus, 1 sp.
,, Murina, 2 sp.
,, Kerivoula, 4 sp.
,, Vespertilio, 5 sp.
,, Myotis, 5 sp.
,, Plecotus, 2 sp.
,, Barbastellus, 3 sp.
,, Nyctopilus, 1 sp.

CYPER GRASS OIL. Oil of Cyperus esculenta.

CYPERUS, or the sedge genus, of which about 33 species of this genus of the Cyperaceæ are known in the E. Indies. C. inundatus is valuable as a binding plant for the sides of rivers and tanks, C. bulbosus, *Roxb*, has a small nut-like root, with three blunt excrescences on the surface, and Dr. Mason mentions the root of a species of sedge found among the vegetables, which tastes like filberts.—*Dr. Mason.*

CYPERUS BULBOSUS. Vahl.

Cyperus jemenicus	*Roxb.*	Cyperus capitatus	*Retz.*
,, geminatus	*Anslie.*		
Shilandi	Tam.	Purigaddi	Tel.
Shilandi arisi	,,	Puridampa	,,

This plant grows on the Coromandel coast near the sea, its roots are used as flour in times of scarcity. They are eaten roasted or boiled. This was first brought to the notice of Europeans by the late Dr. James Anderson, who, in an excursion he made to the southern part of the peninsula of India, discovered that the Sheelandie arisee, from growing in sandy situations by the sea side, and requiring but little water, was the common food of the natives during a famine and when other grains are scarce. It is nutritious, pleasant to the taste, and makes a pudding somewhat resembling that made of sago. Dr. Anderson, with that kindness and benevolence which ever distinguished him, disseminated the bulbous roots of this curious plant wherever he thought from their particular qualities they could be beneficial.—*Ainslie, p.* 250. *Useful Plants, Roxb. O'Shaughnessy, p.* 628.

CYPERUS BACHA. Ham. syn. of Cyperus inundatus, *Lindl.*

CYPERUS CAPITATUS. Retz. syn. of Cyperus bulbosus, *Vahl.*

CYPERUS ESCULENTUS, the esculent cyperus. The toasted roots have been used as a substitute for coffee, and yield a preparation resembling chocolate. The cultivation of the plant deserves attention for its considerable alimentary value.—*O'Shaughn.* 628.

CYPERUS HEXASTACHYUS, Rottl.

Var. α. Communis.	*Var. β.* Pendalus.
Var. α. Rotundus. *Roxb.*	

Sab	Arab.	Gundala, Gundra	Tel.
Mootho	Beng. Hind.	Bhadra tunga gaddi	,,
Moostaka; Motho,	Duk.	Mustakamu	,,
Kora	Maleal.	Paninvelamu	,,
Bhadra muste	Sans. Tel.	Sakha-tunga	,,
Kalandura	Singh.	Tunga muste	,,
Koro	Tam.	Funarus	Yunani.
Kai vartaka musta	Tel.		

Var. α. C. rotundus, *Linn. Roxb.* grows in all southern Asia, from Arabia to Java, and N. Holland. Its tuberous roots are sold in the bazars, and used by perfumers under the name of agarmothee on account of their fragrance. Hogs are very fond of them. Cattle eat the grass.—*Roxb.* i. 197. *Voigt.* 722. *Elliot. Fl. Andhrica. Gen. Med. Top.* 174, *O'Shaughnessy p.* 628.

CYPERUS INUNDATUS. Roxb.

Cyperus procerus	*Roxb.*	Cyperus bacha	*Buch Ham*
Pati,	Beng.	Potupullu,	Maleal.

Found in great abundance on the low banks of the Hoogly near Calcutta, and of rivers in the south of India, where the tide rises over it. It thrives most luxuriantly and helps to protect the banks from the rapidity of running water.—*Roxb.* i. 201. *Voigt.* 721.

CYPERUS JUNCIFOLIUS.

Nagur mutha,	Beng. Duk.	Koray kalangu,	Tam.
Musta,	Sans.	Tungadda,	Tel.

Its roots are fibrous with small bulbous extremities. It is employed as a diaphoretic in India, is prescribed in decoction in fever cases, and is reckoned a valuable remedy when there appears to be a tendency to dropsy in the habit.—*Ains. Mat. Med. p.* 84.

CYPERUS JUNCIFOLIUS. See Cyperus rotundus.

CYPERUS LONGUS. See Galangal.

CYPERUS PANGOREI. Rottl. syn. of Papyrus pangorei, *Nees.*

CYPERUS PAPYRUS, of the Egyptians, belongs to this genus, and is still called babier in Syria. It is about 15 feet high; the exterior tunic of the stems cut in bands, and pressed, formed the paper of ancient Egypt and Europe; the leaves, which are several feet long, served for the same purpose, but were of inferior quality. This paper is but little liable to decay. Pliny, for instance, relates that the book of laws of Numa Pompilius was found in Rome in a high state of preservation after having been buried nearly six centuries in the earth.—*O'Shaughnessy, p.* 628.

CYPERUS PERTENNIS. Roxb.

Nagur Moothee,	Beng.	Kola Tunga Muste,	Tel.
Naga	,,		

Roots aromatic, employed as a hair perfume. —*Roxb.* i. 198. *Voigt.* 722.

CYPERUS PROCERUS. Roxb. Syn. of Cyperus inundatus, *Roxb.*

CYPERUS ROTUNDUS. Roxb. Syn. of C. hexastachyus, *Rottl.* var.

CYPERUS STOLONIFERUS. See Jatamansi.

CYPERUS TEGETUM, Roxb. Syn. of Papyrus pangorei, *Nees.* Used in India for mat making.—*Royle, p.* 389.

CYPRÆIDÆ, the cowries, or cowry family of shells, the Porcellanen of the Germans and Porcelaines or *Porcelain* shells of the French, is a family of Molluscs, the classification of which may be thus shown

Fam. vi. Cypræidæ, Cowries.
  Genus Cypræa, recent 150, sp. fossil 78 sp.
  Sub-genus Cyprovula.
      Luponia.
      Trivia, recent 30 sp.
  Genus Erato *rec.* 8 sp. fossil 2 sp.
    Ovulum *rec.* 36 sp. fossil 11 sp.
  Sub-genus Calpurna, *re.*

Woodward, Recent and Fossil shells. See Cowries.

CYPRÆA ARGUS, occurs at Ceylon, and a pair has been sold for four guineas. *C. Moneta* is used in many parts of the East as a circulating medium and for ornamenting the dress of several races, and the trappings of animals. See Cowries.

CYPRICARDIA; CYPRINA, two genera of molluscs.

CYPRESS. Tir-zah, Heb. An evergreen forest tree, a native of the south-eastern parts of Europe, particularly of Italy, Mexico, and the southern parts of N. America. There are several species of this class of evergreen trees. The twisted cypress (Cupressus torulosa) occurs in the N. W. Himalaya, in a solitary clump at the junction of the Budhil with the Ravi, but is not found further to the west. It is found in the Sutlej valley between Rampur and Sungnam at an elevation of 6,000 to 8,000 feet. The wood is hard, elastic, strong, resists worms, and its odour repels insects from whatever may be contained in a cabinet or chest made of it. Its duration is very considerable, but the precise period to which the tree lives has not been clearly ascertained. The cedar-wood of Japan, according to Thunberg, is a species of cypress.—*Cleghorn, Punjab Report, p.* 63. See Cupressus.

CYPRESS, CREEPING. Eng. Syn. of Juniperus communis.

CYPRESS SHRUB. Syn. of Lawsonia alba. *Lam.*

CYPRINUS. *Var.*

Sayl,	Duk.	Sayl kunde,	Tam.
Tambara,	Malay.		

Ains. Mat. Med. p. 156.

CYPRUS VINE. Ipomea quamoclit.

CYPSELUS, the Swift genus of birds, of which there are several species in India. Along the river-banks, where high enough, the small Indian Bank Martin (H. Sinensis) occurs abundantly; there are two non-migratory swifts, the common House Swift (Cypselus affinis) and the little Palm Swift (C. balasiensis). The great spiny-tailed swift of the Himalaya (Acanthylis nudipes of Hodgson) was obtained, a few seasons back, in England. Mr. Gould identifies this British-killed bird with his Ac. caudacuta of Australia, but it appears identical with the Himalayan species; upon comparing Himalayan specimens with Mr. Gould's plate, no difference can be detected. The great Alpine Swift, (Cypselus melba) is common to the Himalaya, the Nilgiris, and high mountains of Ceylon, but the great Acanthylis of the Himalaya has never been observed in S. India, and is replaced in the Nilgiris, Ceylon, and also across the Bay of Bengal, (in Penang, &c.) by a distinct species, the Ac. gigantea.

CYPSELIDÆ. A family of birds comprising,

Sub-fam. Cypselinæ, 3 gen. 11 sp. viz. 3 Acanthylis; 6 Cypselus, 2 Collocalia.

Sub-fam. Macropterigiinæ, 1 gen. 3 sp. viz. 3 Macropterix, coronatus, klecho, comatus.

Cypselus apus. 'Common Swift' of Europe, N. Africa, W. Asia, Afghanistan; migratory.

Cypselus melba, C. alpinus; the 'Alpine Swift.' High mountains (chiefly) of Europe, Asia, and Africa: tolerably common in the Himalaya, Central India, Nilgiris, and Ceylon: rare in Britain.

CYPRINIDÆ, a family of Fishes of the order Physiostomi, the species of which are distinguished by their having the mouth small.

The family is classed into fourteen groups viz.:—

Catostomina.
Cyprinina.
Rhoteichthyina
Leptobarbina.
Rasborina.
Semiplatina.
Xenocypridina.
Leuciscina.
Rhodeina.
Danionina.
Hypophthal.
Michthyina.
Abramidina.
Homalopterina.
Cobitidina.

in which are 110 genera and about 690 species. *Engl. Cyc. page* 219. See Fishes.

CYROPOLIS, erected by the opponent of the Getic queen Tomyris.

CYRTODACTYLUS MACULARIUS. *Blyth,* apparently affined to C. *Marmoratus,* (Kuhl), of the Malay countries; with tail granular, beneath, as in that species scales on throat minute, becoming gradually larger to the abdomen. The very young have probably the crown black; a broad black band across the nape; two others upon the body, between the fore and hind-limbs; another where the hind-limbs are articulated; and three more upon the tail, besides its black tip: the interspaces being of a fine rosy carneous hue, with a few black tubercles interspersed among the numerous pale tubercles: limbs and under-parts spotless, on the former slightly marked. In a specimen not half grown, the interior of the black bands is pale and speckled with black, the margins continuing black; and it is probable that the dark hue ultimately disappears from the interior of the patches. In a specimen under examination, the dark hue appeared to have almost left the crown, its blackish margin only remaining, as a streak from the nostril through the eye and continued round to join its opposite upon the occiput crown and cheeks mottled with dark spots more or less confluent; and the interspace from the occiput to the nape-band has many black tubercles. Mr. Theobald informs that the species attains more than six inches, and when alive is remarkable for the beauty of its prevailing rosy-carneous hue. It probably attains the size of *C. pulchellus*, from the Punjab Salt Range.—*Mr. Blyth.*

CYRTODACTYLUS MARMORATUS. See Cyrtodactylus macularius.

CYRENA FUSCATA. See Veneridæ.

CYRTOPHYLLUM FRAGRANS. The Anan of the Burmese, grows in Moulmein. Is one of the nux vomica tribe, and one of the hardest, most compact and heaviest woods known.—*Cal. Cat. Ex.* 1851.

CYRTUS INDICUS. Bloch, a fish of the Indian seas, of which large quantities are dried, and consumed by the natives of India. Plate 277 of Cuvier and Valenciennes represents the fish much too red.—*Cantor.*

CYRUS, is said by most authorities to have lived B. C. 545, and to have conquered Babylon B. C. 504.; other dates are given, but this is the generally accepted date of the fall of Babylon. Its capture by Cyrus is foretold in Jer. i. 1 to 35, Dan. viii. and Is. xxi. 2-9. Its power must have been much detested, if the expressions anticipatory of its after fall be considered. Isaiah says, xxi. 2-9, "Go up, O Elam! besiege O Media! * * * Babylon is fallen, is fallen: and all the graven images of her gods he hath broken into the ground." Jeremiah says, li. ver. 37, "and Babylon shall become heaps, a dwelling place for dragons, an astonishment, and an hissing. without an inhabitant." Babylon fell before the arms of Cyrus about B. C. 504. Nicotris, the queen mother, counselled resistance, and as there was an ample supply of food with walls 350 feet high and 87 thick, it seemed possible to withstand the siege. But after it lasted two years, Cyrus opened the head of the canal connected with the Euphrates, and allowed its waters to enter the trenches with which he had surrounded the city. This so drained the bed of the river where it entered the city, that by midnight the two bodies of soldiers whom he had posted at the points of its entrance and exit passed in and opened the gates for the army who poured in and surrounded the place, and within a few hours the city surrendered. Towards the north of the province of Fars (according to Mr. Morier), Mader-i-Suliman marks the tomb of Cyrus, son of Cambyses.—*Ousely's Travels.* Vol. i. p. 104. *Mignan's Travels*, p. 168. See Fars: India 311, 313, Inscription: 371; Persian Kings.

CYRUS RIVER. The principal streams of the province of Fars are the Bendamir or Araxes, which receives the Kur-ab or Cyrus, as it falls into lake Bakhtegan: and the Nabon, whose course is from Firozabad southward to the Persian Gulf. In this country are also the higher parts of the two branches of the Tab.

CYST. See Burial; Cairn.

CYTHEREA, a genus of molluscs. See Mollusca.

CYTISUS CAJAN, *Linn.* Cajanus Indicus, *Spr.*

Toovaray.	Can. Tam.	Toor-ka Dhal	Hind.
Tooar.	Duk. Mahr.	Shakhool.	Pers.
Pigeon Pea.	Eng.	Adaki.	Sans.
Urhur.	Hind.	Kandaloo.	Tel.
Dhal	,,		

The pigeon pea forms one of the "dhal" in common use in India as an article of diet. It is also one of the plants employed in the Bengal Powder works at Eshapore, in the manufacture of gunpowder charcoal. It might probably be employed in the manufacture of pyroligneous acetic acid.—*Beng. Phar.* p. 235.

CYTISUS PSEUDO-CAJAN, Jacq. Rheede, syn. of Cajanus Indicus, *Spreng.*

CYZICENUS. See Greeks of Asia.

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